Usenet Newsgroup Archive: rec.radio.amateur.antenna

2002-10 - 2002-12

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Date span: 2002-10-01 through 2002-12-31

Source text: rec.radio.amateur.antenna.txt

Source item: https://archive.org/details/usenet-rec

Messages included in this PDF: 5,750

Message records with no readable body available in the source text: 2

Messages are presented chronologically by archived date.

Binary or encoded payloads are not printed as blocks of encoded text; a placeholder appears where such material was detected. The original source text is unchanged.

1. M2 KT36XA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 00:11:52 UTC
From: lemwnash@aol.com
Message-ID: <20020930201152.27870.00006949@mb-df.aol.com>
Source record: 133840

anyone using this antenna or have any info about it?

kh6lem

2. HUSTLER RESONATOR PROBLEM

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 00:49:49 UTC
From: jder8745@aol.com
Message-ID: <20020930204949.13264.00006272@mb-cn.aol.com>
Source record: 133841

QST,

Operating in a campground using a Hustler on the travel trailer I was doing fine on 75 meters. That is fine until after the rain. Then the auto tuner on the TS-570S could no longer perform. Checked the VSWR and read INFINITY!!.

Worked okay on 20, 10, and 40 MHz.

Finally cut off the plastic weather "seal" to find much water on the coil.

I dried the coil on my T-shirt and everything worked okay.

On the 75-m resonator there was a path for water to enter. Be aware. This resonator to all appearances seemed like new

73 de Jack, K0CUN

3. Re: TV antenna for a specific channel?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 01:24:42 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <vP6m9.5688$FI4.500905@news20.bellglobal.com>
Source record: 133842

"JELo"
> I live in a rural area and there is one television station
> that I would like to get but it just barely comes in with
> my current setup (broadband TV antenna with rotor,
> pre-amp, distribution system). <snip>

I did exactly that several years ago. Some coworkers lived outside the city and couldn't watch 'Star Trek' from one of the lower power TV stations in town. I built a half dozen 6-element VHF Channel-8 Yagis based on (scaled from) the NBS design for 2m. I brazed them together out of old conduit and ceiling tile wire and then painted them black. They worked great; noticably better than a wideband commercial antenna. Good enough for the situation that was just out of reach for affordable commercial antennas. Most are still in use today.

One neighbour of one of my coworkers asked him what he was up to. He told the neighbour that he was installing an antenna to get channel 8. The neighbour asked, "Is that legal ?" :-)

If you need a link, then do a Google search on NBS Yagi.
http://www.google.com/search?q=NBS+Yagi

Don't agonize about getting a precise match.

Also, keep in mind the bandwidth (6MHz), especially on the lower channels (VHF 2-6) where it is a significant percentage bandwidth.

4. Re: When to use a Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 02:03:26 UTC
From: rhmcus@yahoo.com
Message-ID: <3d99fb30.13790389@news-server.austin.rr.com>
Source record: 133843

Thanks Cam and Dick for the information.. Im going to try making a choke with the coax at the junction to the matching section to see if that impoves things.

Rich KG5IF

On Sun, 29 Sep 2002 05:04:58 GMT, Dick Carroll <dixie@townsqr.com> wrote:

>Rich McMahon wrote:
>
>> All
>>
>> With wire antennas when is it appropriate and necessary to use a
>> balun.. I understand that basically its an impedance matching
>> transformer.
>
>I never would use a transformer type balun on a dipole antenna. A choke
>balun can be advisable. When the coaxial feedline is a halfwave or a
>multiple thereof, or something even close, the outer surface of the coax
>can become a third "leg" of your dipole. and can also change the resonant
>frequency of the basic dipole itself with the added length. In such cases
>it is very much advisable to use a "choke balun". If the coax feedline
>happens to be a quarterwave or multiple, or close to it, it will present
>a high impedance and should pose no such problem.
>
>
>
>
>
>> Does it also isolate RF and keep it off the feed line and
>> out of the shack..
>
> A choke balun, which is no more than an RF choke which can consist of a
>few turns of coax wound into a "hank" and hung below the dipole feedpoint,
>can serve to decouple the coax outer shield surface and both prevent it
>from acting as a third element to the dipole, as above, and also keep RF
>out of the shack.
>
> Transformer baluns are mostly more trouble than they are worth for a
>large portion of hams. Actually they are provide false sense of security
>since they raise your expectations. Sure, they can be made to work
>properly on a narrow range of frequencies with little hassle, but most
>hams don't want to be constrained to a narrow range of frequencies.
>Wideband baluns are special cases.

>
>> Oh i'm using a G5RV full size and a differential T
>> turner from MFJ..
>
>If you want to use a balun to keep RF out of the shack, wind a dozen turns
>of coax into coil and place it just before the junction of the coax and
>the balanced line.
>
>Dick
>

5. Re: How many people have insulted radials??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 02:04:52 UTC
From: rhmcus@yahoo.com
Message-ID: <3d9afb9f.13901349@news-server.austin.rr.com>
Source record: 133844

Dangerous to spell things incorrectly in this group.. :)

Rich

On Thu, 26 Sep 2002 11:52:25 +0100, "M.J.Powell"
<mike@pickmere.demon.co.uk> wrote:

>In article <3D92D4EC.CF60F84A@capnet.com>, StarGazer <pti@capnet.com>
>writes
>>.asd
>
>I swear I have never insulted my radials in my life, not one harsh word.
>I look after them and treat them kindly. I even wipe the raindrops off
>them.
>
>Mike

6. Re: TV antenna for a specific channel?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 02:16:57 UTC
From: JELo <jelo@nospammail.com>
Message-ID: <3d990180_2@corp.newsgroups.com>
Source record: 133845

> > I live in a rural area and there is one television station
> > that I would like to get but it just barely comes in with
> > my current setup (broadband TV antenna with rotor,
> > pre-amp, distribution system). <snip>
>
> I did exactly that several years ago. Some coworkers lived outside the city
> and couldn't watch 'Star Trek' from one of the lower power TV stations in
> town. I built a half dozen 6-element VHF Channel-8 Yagis based on (scaled
> from) the NBS design for 2m. I brazed them together out of old conduit and
> ceiling tile wire and then painted them black. They worked great; noticably
> better than a wideband commercial antenna. Good enough for the situation
> that was just out of reach for affordable commercial antennas. Most are
> still in use today.
I was sure somebody had done this before.

> One neighbour of one of my coworkers asked him what he was up to. He told
> the neighbour that he was installing an antenna to get channel 8. The
> neighbour asked, "Is that legal ?" :-)
I am dealing with channel 6 which is the top of the
VHF Low part of the TV band = big antenna right?

> If you need a link, then do a Google search on NBS Yagi.
> http://www.google.com/search?q=NBS+Yagi
Just got NBS Tech Note 688 and am trying to digest it.

> Don't agonize about getting a precise match.
>
> Also, keep in mind the bandwidth (6MHz), especially on the lower channels
> (VHF 2-6) where it is a significant percentage bandwidth.
What would I need to do differently for this (since I
am dealing with channel 6)? JELo

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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7. Re: TV antenna for a specific channel?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 02:54:24 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <jr2ipu0kn0e71jku69svo33ldn2vimikv9@4ax.com>
Source record: 133846

```
|
|> If you need a link, then do a Google search on NBS Yagi.
|> http://www.google.com/search?q=NBS+Yagi
|Just got NBS Tech Note 688 and am trying to digest it.

The NBS paper is quite dated. Good info, but modern computer-designed
antennas are much better.
|
|> Don't agonize about getting a precise match.
|>
|> Also, keep in mind the bandwidth (6MHz), especially on the lower channels
|> (VHF 2-6) where it is a significant percentage bandwidth.
|What would I need to do differently for this (since I
|am dealing with channel 6)?

Take a look a LB's site particularly:

http://www.cebik.com/owa.html

Scaling this to CH6 should be easy.

Wes
```

8. Help needed in slot antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 03:47:53 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0209301947.54ab412f@posting.google.com>
Source record: 133847

hi,
I am doing research on slot antennas.My design has two slots one
for 2.4GHz and the other for 5.78GHz. Its on a infinite ground plane
and usign IE3D to simulate it. The thing is i am getting good match at
two frequencies but getting a off resonance at 4GHz. Kindly clarify my
doubts.

thank you.

9. Re: What gauge wire for Windom?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 04:17:33 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9921DD.8D33237D@ieee.org>
Source record: 133848

Max wrote:
> Some diagrams I see say 10 ga. other use 12 ga. I have some 10 ga. here
> but it looks awfully heavy. The antenna will be used for field day use.
> Can I get away with 14 gauge? Maximum power to antenna will be 100W.

20 ga. would be fine. I use 18 ga.
--
cheers, CAM http://www.qsl.net/w5dxp

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10. Re: Where do I purchased an AM loop... active or passive??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 04:37:33 UTC
From: charlesh3 <charlesh3@msn.com>
Message-ID: <3d992693_2@news.teranews.com>
Source record: 133849

Depends on what you are doing. If you are trying to do some serious DX, the two best places are http://www.dx-tools.com/AboutR+.htm and www.kiwa.com.

For just plain listening, I'll let the others fill you in.

Chuck

"StarGazer" <pti@capnet.com> wrote in message news:3D975B29.7D641BF5@capnet.com...
> asdf
>

11. ts830 0 ts530

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 04:51:26 UTC
From: IronHead <slipkid@kwiknet.net>
Message-ID: <iR9m9.55$iQG3.7274653@news2.randori.com>
Source record: 133850

can anyone tell me the difference between the two radios? They seem the same on the exterior.

12. Re: ts830 0 ts530

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 05:33:58 UTC
From: Zoran Brlecic <WA7AA@attbi.com>
Message-ID: <3D993339.1030403@attbi.com>
Source record: 133851

IronHead wrote:
> can anyone tell me the difference between the two radios? They seem the same
> on the exterior.

The main difference is in the receiver which was a superior product in
the ham market for many years, making the 830 a rig of choice for dxers
and contesters. There are some other minor differences, but if you are
considering a 530 or a 830, definitely go with the latter.

73 ... Zoran WA7AA

13. Re: Horizontal Loops for HF - anyone using?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 06:05:46 UTC
From: don bryant <dba@yebo.co.za>
Message-ID: <anbe09$5ec$1@ctb-nnrp2.saix.net>
Source record: 133852

I did a quick sketch from the description and it seems you have a
bi-directional Rhombic. No wonder yours signal is so good. Perhaps someone
with a software package could perform an analysis. Very interesting.

Don ZS6BTP
NC6K <nc6k@NOSPAMarrl.net> wrote in message
news:3d8ff1f4.7499023@news.newsfeeds.com...
> Funny that you should ask. After using Cushcraft verticals for the
> past 10 years, I decided to put up a "crazy loop". Construction
> details: approximately 300 feet of 16 gauge speaker wire (unzipped
> into single strand) purchased at home depot and fed with 450 Ohm
> window line (about 50 feet). The shape is a very distorted triangle:
> Feed point is eave of house (about 22' up), fans out to palm trees
> (both @ about 30') that are about 40 feet apart and 50 feet away.
> Then both converge at a 45 foot high tree on a 25' hill about 100'
> back and not really at the midpoint between the palms in the other
> axis.
>
> I listed all the details to point out that anything goes as long as
> you have a decent antenna tuner. My MFJ-989C can tune the loop from
> 160 to 6 meters with no problem. In every case since I put it up a few
> days ago, the loop is as loud or louder than my R-8 vertical. On 160
> and 80, using the vertical isn't even an option. I had one station in
> Minnesota ask me how many hundreds of kW I was using on 12M. I didn't
> think it was such a big deal until I switched to the vertical - she
> said I was about a 57! I've gotten similar comparison reports from
> South Korea, Kenya, Indiana, etc. In fairness to the vertical, I'm
> feeding it with about 150' of 9913 coax, so there's a few dB lost
> there.
>
> Anyway, hope my experience is of some use. Give it a try, you never
> know what will happen, and best of all - IT'S CHEAP!
>
> 73 de NC6K
>
>
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> http://www.newsfeed.com The #1 Newsgroup Service in the World!
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14. Discone construction details

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 08:18:29 UTC
From: Mike Newman <mnewman@clear.net.nz>
Message-ID: <s9mipucpbra4c9pquarfqpt1o2ktmu7j6m@4ax.com>
Source record: 133853

I'm looking for ideas for construction of a vhf/uhf discone, matching
50 ohm Z.

Have some machining capability.

Any references would be appreciated.

Thanks

MikeN ZL1BNB

15. Re: TV antenna for a specific channel?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 11:23:31 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <SAfm9.6160$FI4.623452@news20.bellglobal.com>
Source record: 133854

"JELo"
> What would I need to do differently for this
> (since I am dealing with channel 6)?

Buy more/thicker conduit and wire... :-)

The comment about % bandwidth is that you shouldn't build a very 'highly tuned' antenna. The NBS design is pretty good in this respect.

16. Re: Help needed in slot antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 12:07:18 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <anc35m$io4$1@helle.btinternet.com>
Source record: 133855

```
(2.4 + 5.78) / 2 = 4.09

============================
> hi,
> I am doing research on slot antennas.My design has two slots one
> for 2.4GHz and the other for 5.78GHz. Its on a infinite ground plane
> and usign IE3D to simulate it. The thing is i am getting good match at
> two frequencies but getting a off resonance at 4GHz. Kindly clarify my
> doubts.
```

17. Re: How many people have insulted radials??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 12:52:39 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <9j6jpukpb7eaq2i50ru13e12jqs536gmco@4ax.com>
Source record: 133856

Well, I haven't insulted radials, personally, but I've know a few
antenna manufacturers who have :-)

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

18. Re: TV antenna for a specific channel?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 13:59:17 UTC
From: JELo <jelo@nospammail.com>
Message-ID: <3d99a616_4@corp.newsgroups.com>
Source record: 133857

> > What would I need to do differently for this
> > (since I am dealing with channel 6)?
>
> Buy more/thicker conduit and wire... :-)
>
> The comment about % bandwidth is that you shouldn't
> build a very 'highly tuned' antenna. The NBS design is
> pretty good in this respect.
Makes sense.

One question I have is; from what I have seen, the
reflector and the directors are electrically shorted
together through the boom, but is the driven element
also electrically connected to the boom or is it
supposed to be electrically isolated from the boom
with one half driven by the center conductor and
the other driven by the shield of the feed line coax?
There seems to be different construction methods
that different people use, but yours sounds simple
enough, how did you set up the
driven element? JELo

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19. Re: How many people have insulted radials??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 14:46:18 UTC
From: k3bu@aol.com
Message-ID: <20021001104618.05495.00010973@mb-fc.aol.com>
Source record: 133858

>
>Well, I haven't insulted radials, personally, but I've know a few
>antenna manufacturers who have :-)
>
>
>Jake Brodsky, AB3A

Especially those who say you don't need no stinkin' radials for verticals.

Amazing what one little missing "a" (eh?) could generate - more interesting
thread that fracabelics :-)
With apology to ra-dials and other insulated dials.

Yuri

BTW I just got 41 dB out of fractaly bent coathanger, just take the coathanger,
straighten it out and bend in like this:

```
* *
* *
* * * *
* *
* * *
```

Can anyone top that? You can use only 13 stars (in the "software") and fit in
the same square envelope, huh?
Potent Pounding, TM, Copyleft, seas and deseased

my buddy Bada BUm
Sopranos are on!

20. Re: Help needed in slot antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 14:50:34 UTC
From: richardharrison@webtv.net
Message-ID: <8095-3D99B63A-63@storefull-2312.public.lawson.webtv.net>
Source record: 133861

anand wrote:
"---I am getting good match at the frequencies (that the slots are cut for) but getting an off resonance at 4 GHz."

Is the surface between the slots resonant at 4 GHz?

Chokes may prevent unwanted resonance.

If you don`t excite the antenna at 4 GHz, is this resonance a problem?

Best regards, Richard Harrison, KB5WZI

21. Antenna lies swapping Octoberfest in NY/NJ/PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 14:51:22 UTC
From: k3bu@aol.com
Message-ID: <20021001105122.05495.00010976@mb-fc.aol.com>
Source record: 133859

Come and have radio-octoberfest fun!
Even if it rains!

You are all invited to (Radio) "Uktoberfest" at Mountainview Resort Verkhovyna (dance hall) in Glen Spey, NY (NY, NJ, PA tri-state area) hosted by the Tesla Radioclub and Ukrainian-American Cultural Foundation - UACF on Saturday, October 5, 2002, starting at 3:00 pm till ???

Come and have fun meeting other hams, DXers, contesters, while having good time and drinking Spaten Oktoberfest and Ukrainian Obolon beer. Enjoy Ukrainian food (special kobassy/wurst, kapusta/sauerkraut, pyrohy/pirogi, sweets) and German food (sauerbraten, spatzel, red cabbage, apple strudel), listen or dance to endless polka's by Czornozem live band and DJ Yurko-Durko. Wear your badge, hat or shirt with callsign proud and meet other radio aficionados around the "radio" table reserved for hams. Free admission to Hams, firemen, police officers, just show your badge.

142 acre Verkhovyna - MountainView Resort is the new home to Tesla Radioclub N2EE station.
Join the semiserious discussion of how many towers do we need to put up there. Come, check it out, join the club and get a free beer. Bring your family and friends.

Directions:
Take Hwy. 84 to Port Jervis, NY exit 1; follow Rt. 6 through Port Jervis to traffic light with Rt. 97/42 signs, go through and follow Rt. 97 west for 10.8 miles to Pond Eddy ("Nolan's" motel on right, bridge on left), turn right onto High Rd. (Rt. 41), go up the steep hill for 1.7 miles, Verkhovyna is on the left.
Plenty of parking.

More info, maps and satellite view of the resort are at www.Verkhovyna.com home page under directions.

See you all there and join us yodeling in Morse code :-)

Nazdorovya, Ein Prosit!

For more info contact
Yuri, K3BU, tel 973 808 1970 Email K3BU@aol.com
pres. Tesla Radioclub, host of Uktoberfest

22. Re: What gauge wire for Windom?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 14:56:49 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0210010656.4763f5ae@posting.google.com>
Source record: 133860

"Max" <ve3tmt@yahoo.ca> wrote in message
news:<t03m9.4404$Kg4.416280@news20.bellglobal.com>...
> Some diagrams I see say 10 ga. other use 12 ga. I have some 10 ga. here
> but it looks awfully heavy. The antenna will be used for field day use.
> Can I get away with 14 gauge? Maximum power to antenna will be 100W.
>
> Thanks,
>
> Max

I've put up a number of antennas made from #14 insulated & stranded
THHN "house wire" which I bought at the local Home Depot for around
$15 for a 500 foot spool of it. Never had a problem with it including
one aerial which had 200 foot horizontal span.

w3rv

23. Re: TV antenna for a specific channel?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 15:20:00 UTC
From: richardharrison@webtv.net
Message-ID: <8094-3D99BD20-166@storefull-2312.public.lawson.webtv.net>
Source record: 133864

Bill M wrote:
"Maybe struggling for more height is the best answer."

Bill has a good idea. JELo says one of a group of stations barely comes in, despite his rotator. Fresnel may be at work creating alternating parallel strata of high and low intensities of the Channel 6 signal.

There may also be multipath involved at the receiving antenna spot now. There may be sweet and sour spots horizontally sited on his receiving location.

Experiment may disclose the best spot, and height, for a new single-channel antenna.

Best regards, Richard Harrison, KB5WZI

24. Re: What gauge wire for Windom?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 15:31:02 UTC
From: richardharrison@webtv.net
Message-ID: <8094-3D99BFB6-168@storefull-2312.public.lawson.webtv.net>
Source record: 133863

CAM wrote:
"20 ga. would be fine. I use 18 ga."

If 18 ga. works for CAM, isn`t 20 ga. possibly too fine?

Best regards, Richard Harrison, KB5WZI

25. Re: TV antenna for a specific channel?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 15:34:49 UTC
From: jder8745@aol.com
Message-ID: <20021001113449.13333.00007289@mb-cn.aol.com>
Source record: 133862

Greetings,

If you are using coaxial t-line, change to low loss or even open wire parallel t-line.

Other repliers have commented on line loss.

Coaxial line is relatively lossy. I don't know what the frequency of the station you wish to watch is or how long of a t-line run you have.

If it's a UHF station and the line is long your are hurting big time.

Good luck. Read all replies. There's bound to be a good one in here somewhere.

73 de Jack, K9CUN

26. Re: Using IC-735 with AT-250 Auto Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 16:47:20 UTC
From: rjones@mail.cccd.edu
Message-ID: <ancjioldg1@spock.dis.cccd.edu>
Source record: 133865
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.antenna

Thanks anyway, folks. I sat down and figured this out last night.
Works great!

73,

Rick, KG6RJ

In article <3D987D0E.52385E4D@mail.cccd.edu>, rjones@mail.cccd.edu says...
>
>Hello all,
>
>I thought I would see if anyone else has successfully interfaced the
>Kenwood AT-250 automatic antenna tuner with an ICOM IC-735 transceiver.
>I would think this is has been done and would prefer not to re-invent
>the wheel if I don't have to. I'm not particularly interested in the
>automatic band selection feature as the IC-735 and the Kenwood methods
>of relaying this information to the tuner are quite different.
>
>If you've done this, I would appreciate the appropriate pin out
>information from the IC-735 accessory port to the AT-250 port. Many
>thanks in advance.
>
>73,
>
>Rick, KG6RJ
>

27. Re: TV antenna for a specific channel?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 17:06:11 UTC
From: richardharrison@webtv.net
Message-ID: <25073-3D99D603-133@storefull-2314.public.lawson.webtv.net>
Source record: 133866

JELo wrote:
"There seem to be different construction methods that different people use---."

"Plumber`s delight" works for me. A simple TV favorite uses a folded dipole as a driven element.

The center of the folded rod opposite the feedpoint is a zero-potential point and can be welded to the boom. For CH 6 (82 MHz), the folded dipole should be about 62 inches end to end as a 1/2-wave element.

The director should be 5 ft (60 inches) long and spaced 15 inches ahead of the folded dipole.

The reflector should be 6 ft long and spaced 22 inches behind the folded dipole.

Fatter elements broaden the bandwidth slightly.
They affect the resonant lengths slightly.

The drivepoint impedance is a good match for 75-ohm coax. A balun might help. Gain is about 7 dbd. Bandwidth is about 6%, enough for a single channel (82-88 MHz).

This is adapted form Arnold B. Bailey`s "TV and Other Receiving Antennas".

Best regards, Richard Harrison, KB5WZI

28. Re: How many people have insulted radials??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 17:35:45 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailnospamorama.com>
Message-ID: <wQom9.1802$YK4.238198@e3500-atl2.usenetserver.com>
Source record: 133726

In the '602, some of my best friends were radials. whoops, that shoud be radicals... Sorry

--
Chuck
KE4ETH

"StarGazer" <pti@capnet.com> wrote in message news:3D92D4EC.CF60F84A@capnet.com...
> .asd
>

29. Re: Help needed in slot antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 18:20:00 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0210011020.65fe229f@posting.google.com>
Source record: 133867

Thanks for the help. I like to know how to eliminate it and is it a good way to use two slots for dual band.

Kindly reply.

Thank you.

30. Re: Ideas on copper wire stretching and sagging

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 18:44:13 UTC
From: dan <danlx@execpc.com>
Message-ID: <3d99ed5b$0$1424$272ea4a1@news.execpc.com>
Source record: 133868

Hi Mike,

On Mon, 30 Sep 2002 16:56:34 -0400, mike c
<md_removeunderscores_cola@evenlink.com> wrote:

>In article <3d977e89$0$1426$272ea4a1@news.execpc.com>,
>danlx@execpc.com says...
>> Hi all,
>> I came in on this thread late but...
>> Has anyone out there tried the fishing line called Fireline? It is
>> damn near invisible and can be found in, I think, 50lb test which is
>> much thinner than regular mono or nylon. It is very slippery and
>> tough. Would work for putting wires through trees with just about
>> anything and probably would support wire for a long time. I also have
>> used rope with screen door springs to tension and expand when the wire
>> is under wind load. They work great. Another thing I have used is a
>> few window weights attached to ropes and run through pulleys
>> to tension and let the wire move. I never did like the idea of the
>> window weights falling on some ones head though. (I am a safety
>> director :<)
>
>use a piece of pvc so the weight's inside. don't forget drain holes
>or something.
I might give that a try next time.
>
>fishing line would be hard to coil and keep neat.
I keep mine on fishing reels that I actually use. Fireline is not
standard fishing line, it is one of the new super lines.
>i like the 1/4 in
>hollow braid poly. stretch it between 2 trees, pull it at midpoint,
>tighten it, repeat, leave overnight. that gets the memory out of it.
>now you can coil it up. the CATV eye nut is small and heavy and goes
>through trees. i can hit a beer can at 25 feet or better with it. use
>one of those dog snaps that open outward and don't snag branches as
>much. the hollow braid stuff is cool because you can stick the end
>back through the rope to make an eye without having to braid. it even
>comes in a bag with a polastic i forget what it's called to help
>thread it.

Dan
N9JBF

I've rambled enough, back to the rocking chair. ZZZZZZZZZ
Remove left x for e-mail reply.

31. Re: What gauge wire for Windom?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 19:09:55 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D99F303.EA528DC6@ieee.org>
Source record: 133719

Richard Harrison wrote:
>
> CAM wrote:
> "20 ga. would be fine. I use 18 ga."
>
> If 18 ga. works for CAM, isn`t 20 ga. possibly too fine?

I say it's fine and you say it's too fine. :-) I've seen
stealth antennas made out of #30 wire that worked just
fine at 20 watts. Has anyone seen a heating vs wire size
chart?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

32. WTB: end insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 19:56:09 UTC
From: lc <larryc@northwest.com>
Message-ID: <3D99FDD9.772FD647@northwest.com>
Source record: 133720
Cross-posted to: rec.radio.amateur.antenna,rec.radio.swap

```
Used, Suitable for dipole ends.
```

33. Will a Rhombic antenna work better than an R5?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 19:56:30 UTC
From: StarGazer <pti@capnet.com>
Message-ID: <3D99FDEE.6E4F6653@capnet.com>
Source record: 133721

af

34. Re: Balanced Line input of a MFJ Versa Tuner II

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 20:09:28 UTC
From: "Alexander S. Wood" <alec_wood@dont.spam.me.ntlworld.com>
Message-ID: <DDom9.2418$vk5.24348@newsfep3-gui.server.ntli.net>
Source record: 133725

It should be connected to the post directly above the "wire" post. Once upon a time I think they used to come with one of those "shorting bar" thingy's you could flick out of the way when not needed. It would have been nice to see the "wire" posts further down and a switch provided for this connection, I have seen a few people modify theirs this way.

Alec

"Alex" <alex.draper1@rogers.com> wrote in message news:QAKk9.119312$8b1.21406@news01.bloor.is.net.cable.rogers.com...
> Hello, I bought a MFJ-941E Versa Antenna tuner and didn't receive a manual.
> I did however receive a paper with some instructions typed onto it. I want
> to connect a 300 ohm twin-lead to it. Here's the back MFJ941E :
>
> http://members.rogers.com/alexsradio/mfj941e.jpg
>
> The paper say "A jumper wire from the WIRE binding post, as indicated by a
> dotted line on the MFJ941E, should be connected to one of the posts of the
> BALANCED LINE. This couples the MFJ941E to the balanced line through a 4:1
> balun."
> Without a diagram showing the dotted line i'm stuck. Does anyone have a
> Versa Tuner that could help me?
>
> Thanks!
>
>

35. Re: end insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 20:20:59 UTC
From: Gary McAdams <g.m.mcadams@worldnet.att.net>
Message-ID: <Lsnm9.78497$jG2.4296495@bgtnsc05-news.ops.worldnet.att.net>
Source record: 133722

lc <larryc@northwest.com> wrote in message
news:3D99FDD9.772FD647@northwest.com...
> Used, Suitable for dipole ends.
>

What you need to do is to get down to the local
Home Depot and gather a supply of their ready
made poly-vinyl pipe fittings.

They are the light gray ones with pre-threaded
ends for use in domestic low-pressure water lines.
They come in different lengths and diameters.

Cost, pennies per pound, and they make excellent
end insulators.

Gary WG7X.

36. Re: Boycott The Body Shop !!! 8624

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 20:24:39 UTC
From: "Alexander S. Wood" <alec_wood@dont.spam.me.ntlworld.com>
Message-ID: <D0om9.1900$L6.130434@newsfep2-win.server.ntli.net>
Source record: 133723
Cross-posted to: rec.outdoors.fishing.fly.tying,rec.radio.amateur.antenna,rec.music.artists.springsteen,uk.rec.crafts.sewing

"Moe Hailstone" <colonelnospamdax@hotmail.com> wrote in message
news:J3Ml9.379003$w17.39230@post-02.news.easynews.com...
> Why--are you trying to prove her point?
>
>

It seems that they are. I am afraid as far as "free speech" on current US policy goes we are well and truly into "You're either with us or against us" territory. Anyone who dares crticise or in any way question the direction we are going in is instantly branded a terrorist sympathiser, an enemy of free speech, or "anti-American" as I will now be by countless mindless souls for saying so.

I wish they would answer me one thing though, how can someone be an "enemy of free speech" by exercsing their right to it? Converseley how can a government removing the right to free speech be protecting it?

America - "the home of the brave", I don't doubt it, but "the land of the free"? come on, you must be joking.

Alec Wood M1BNK
Teesside UK

BTW Maybe Iraq would be more willing to let the weapons inspectors in if fewer of them publically admitted being on the CIA payroll as soon as they got out Iraq.

37. Re: Will a Rhombic antenna work better than an R5?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 21:27:57 UTC
From: Bob Miller <bamiller@texas.net>
Message-ID: <SxGaPSM3XYWE71=CP9K1HSJp47iW@4ax.com>
Source record: 133724

StarGazer <pti@capnet.com> wrote:

>af

Depends. An R5 has no gain, but is omnidirectional. A rhombic has gain, but is highly directional.

Bob
k5qwg

38. Icom 706 control program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 22:10:04 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <upksa9fg5avp7b@corp.supernews.com>
Source record: 133743

Stumbled over this site, it has a free program (windows) to control all models of the 706.

http://www.honeycom.com/main.htm

39. Re: TV antenna for a specific channel?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 22:23:59 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <7gpm9.278$%P2.102402@news20.bellglobal.com>
Source record: 133727

"JELo"
> ...the reflector and the directors are electrically
> shorted together through the boom, but is the
> driven element also electrically connected to the
> boom or is it supposed to be electrically isolated
> from the boom with one half driven by the center
> conductor and the other driven by the shield of
> the feed line coax ?

The boom, directors and reflector are all welded together - the design must take that into account since the dimensions are slightly different if you use an insulated boom.

The driven element is a folded dipole that is insulated from the boom by a slab of plastic (epoxied together). If the driven element were in free space (by itself) then it would be 300 ohms. But installed in the Yagi it is lowered to something much less. I still used a 300-75 ohm balun becaused it made the coax connection easier and it didn't seem to hurt.

40. Re: What gauge wire for Windom?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 22:40:03 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <5j8kpuosss4cdscimpau5ho9ip13v4jpmi@4ax.com>
Source record: 133728

On Tue, 01 Oct 2002 14:09:55 -0500, CAM <Cecil.A.Moore@ieee.org>
wrote:

>Richard Harrison wrote:
>>
>> CAM wrote:
>> "20 ga. would be fine. I use 18 ga."
>>
>> If 18 ga. works for CAM, isn`t 20 ga. possibly too fine?
>
>I say it's fine and you say it's too fine. :-) I've seen
>stealth antennas made out of #30 wire that worked just
>fine at 20 watts. Has anyone seen a heating vs wire size
>chart?

Hi Cecil,

This goes by the term "fusing current" for any gauge wire. At #30
that spec is 10.2A for copper. At #14 it climbs to 166A.

This, of course, presumes you either:
a.) observe skin effect, and take that into consideration; or
2.) string pie tins along the length of the wire to negate same.

73's
Richard Clark, KB7QHC

41. Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 22:45:01 UTC
From: fractenna@aol.com
Message-ID: <20021001184501.06895.00005999@mb-cq.aol.com>
Source record: 133729

Anyone have any experience with this stuff for wire antennas? I think its a bit lossy, and anything with Be in it makes me a bit cautious.

Appreciate any feedback from users.

73,
Chip N1IR

42. Re: Discone construction details

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 23:00:10 UTC
From: "Dee D. Hays" <dee.hays@sbcglobal.net>
Message-ID: <_Npm9.1775$F53.1896633@newssvr28.news.prodigy.com>
Source record: 133730

See the ARRL Antenna Book.

"Mike Newman" <mnewman@clear.net.nz> wrote in message
news:s9mipucpbra4c9pquarfqpt1o2ktmu7j6m@4ax.com...
> I'm looking for ideas for construction of a vhf/uhf discone, matching
> 50 ohm Z.
>
> Have some machining capability.
>
> Any references would be appreciated.
>
> Thanks
>
> MikeN ZL1BNB

43. Re: Ideas on copper wire stretching and sagging

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-01 23:14:37 UTC
From: k3bu@aol.com
Message-ID: <20021001191437.01966.00010313@mb-mu.aol.com>
Source record: 133731

Why not pre-stretch and don't worry about "carriers" for the wire?
Or use hard drawn copper from old telegraph or telephone wires/poles.

Yuri

44. Re: Help needed in slot antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 00:37:39 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0210011637.32c9b5f0@posting.google.com>
Source record: 133732

Thanks for the reply. I am using single feed for both the slots(2.4GHz and 5.78GHz), a microstrip line with impedance equal to the slot impedance. Is it a good way of doing that. I also used T-shaped feed. Can you explain little bit more on chokes.

Thanks in advance.

45. Re: Threat to worldwide use of 70cm band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 00:59:50 UTC
From: fractenna@aol.com
Message-ID: <20021001205950.10632.00008568@mb-fx.aol.com>
Source record: 133733

```
>
>******EXTRACT FROM QNEWS (South African Radio League, SARL)********
>
>70-CM BAND UNDER THREAT AT WRC-03
>
>
> It has come to the attention of the South African Radio League, SARL
> that the threat to the 70-cm band WORLD WIDE is once again very real.
> The SARL has just received a discussion paper which will be tabled
> at the World Radio Conference next year (WRC-03) which directly
> targets the portion of 432 to 438 MHz for exclusive use by the planned
> Earth Exploration Satellite Service (EESS) due to be launched soon.
>
> If this proposal is carried at the World Radio Conference next year it
> will see this portion of spectrum allocated on a worldwide basis and
> this spells the death knell of all 70-cm operation.
>
> The SARL is engaged in urgent talks with the SA regulatory body, ICASA,
> and other interested parties to try and convince them that this would
> be a severe blow to amateur radio.
>
> The section of the proposal and the motivation is as follows:
>
> Agenda Item 1.38:
> 'to consider provision of up to 6 MHz of frequency spectrum to the
> Earth exploration-satellite service (active) in the frequency band
> 420-470 MHz, in accordance with Resolution 727 (Rev. WRC-2000).'
>
> Background.
> According to the United Nations Conference on Environment and Development
> (UNCED), Rio de Janeiro, 1992, there is an urgent need for assessment and
> systematic observations of forest cover and rate of forest degradation in
> tropical and temperate regions. Active space borne sensors (Synthetic
> Aperture Radars (SARs) are needed to enable the monitoring of forest
> biomass.
> Systems operating on frequencies around 450 MHz can penetrate the canopy of
> forests, and have the capability to determine the ground-trunk
> interaction and are in the context of forest cover information of
> particular importance.
> Systems operating at 1,3 GHz, or higher frequencies cannot penetrate
> the canopy.
>
> The spectrum around 450 MHz is also optimal for monitoring of continental
> ice and for monitoring of vegetation and soil surfaces for desert and
```

> tropical areas.
>
> Probably, as the SARL are saying, "never before have we needed as many
> amateurs as possible to join and illustrate to the regulatory authority
> that strength lies in numbers.'
>
> No matter WHERE in the world your tuned to this QNEWS edition, NOW is the
> time to join YOUR National Society!
>
>
>**********
>
>Posted by Alec Wood M1BNK
>Teesside UK
>

Alec,

I understand you are concerned about this, but where does it say that the 6MHz of proposed allocation MUST fall within the 70cm ham band?I don't see this in your info. It says " 6 MHz ...within...420-470 MHz'.

If this is a genuine proposal for RE-ALLOCATION I see that your call to action makes sense. However, if it is NOT a proposed RE-ALLOCATION of ham frequencies, then if hams acted as you suggest we will reveal ourselves as unworthy of consideration of this spectrum.

Sincerely, what did I miss in your missive?

73,
Chip N1IR

46. Re: Threat to worldwide use of 70cm band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 02:05:33 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <Mvsm9.520$%P2.171956@news20.bellglobal.com>
Source record: 133735
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

"Alexander S. Wood" trolled alarmingly...
> 'to consider provision of up to 6 MHz of frequency
> spectrum to the Earth exploration-satellite service
> (active) in the frequency band 420-470 MHz...
> ...Active space borne sensors (Synthetic
> Aperture Radars (SARs) are needed to enable
> the monitoring of forest biomass.

Have the people that want the 6MHz chunk ever heard of 'spread spectrum' ?
They could easily design an adaptive, broadband radar waveform for their
(fleet of) satellite(s) that would be virtually immune to interference and
would also have a very low probability of detection. The technologies are
pretty much off-the-shelf. And why limit themselves to 6MHz ? Take the
full 50 MHz (or more) for their spread spectrum signal.

In other words, the required bandwidth could be shared. There is no need
for anyone to move off of the band. All they need is a secondary or
tertiary or etc. asignment for their little project.

BTW, in the depths of the Amazon (for example), I wonder how many users of
70-cm band Ham radio equipment are licensed Amateur Radio Operators ?
People in the less developed countries tend to use cheap Ham equipment (and
frequencies) for all sorts of purposes. Good luck getting them to QRT...

47. Re: WTB: end insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 02:09:43 UTC
From: ik7565@erols.com
Message-ID: <3D9A5567.360C5DB2@erols.com>
Source record: 133734
Cross-posted to: rec.radio.amateur.antenna,rec.radio.swap

Make your own for free. N8IK

lc wrote:
>
> Used, Suitable for dipole ends.

48. Tower to Verticle Ant. Spacing ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 02:20:15 UTC
From: Nev <ynotmetwo@bigfoot.com>
Message-ID: <jrlkpu06edlsfg9i77rg3kbarsj8mh4k9k@4ax.com>
Source record: 133736

Is there any "rule of thumb" for the spacing of a verticle antenna side mounted on a tower.

Firstly, I cant use the top of the tower so side mount is my only option.

The "tower" is a 3" (75mm) single pole and the antenna is a commercial VHF 2 x 5/8 colinear for 163 mhz

What is the minimum distance I can side mount the antenna and still obtain "reasonable" omni directional characteristics.

Thanks

49. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 02:48:59 UTC
From: "Stephen C. Robbins" <srobbinsNoSPaMDUDES@netacc.net>
Message-ID: <3d9a5e90@news.netacc.net>
Source record: 133737

"Fractenna" <fractenna@aol.com> wrote in message
news:20021001184501.06895.00005999@mb-cq.aol.com...
> Anyone have any experience with this stuff for wire antennas? I think its
a bit
> lossy, and anything with Be in it makes me a bit cautious.

Why would Be be cause for caution???? Once alloyed with copper, you will never be able to extract a particle of Be from the metal to become dangerous. You can grind it, sand blast it, machine it, draw it, do anything you want. You will never be able to achieve an airborne particle of berylium.

Berylium Copper alloy is usually used for it's thermal properties. It can be cast to tighter specs and is extremely hard compared to pure copper. It was the material of choice for plastic product molds for many years.

As for antenna wire..... Probably too hard and brittle. A poor choice for mechanical reasons.

Steve

50. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 03:06:42 UTC
From: fractenna@aol.com
Message-ID: <20021001230642.15264.00006235@mb-mn.aol.com>
Source record: 133738

>As for antenna wire..... Probably too hard and brittle. A poor choice for
>mechanical reasons.
>
>Steve

Actually, it was recommended for the very opposite of those attributes.
Do you know conductivity?

Thanks!

73,
Chip N1IR

51. Re: WTB: end insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 03:08:44 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9A633C.75A6A5B3@ieee.org>
Source record: 133740

JDer8745 wrote:
> If you want the traditional old glass ones, check ebay or an antique store.
> I would like to have a bunch of them too.

Doesn't Radio Shack still sell egg insulators two to a package?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

52. Re: WTB: end insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 03:10:52 UTC
From: jder8745@aol.com
Message-ID: <20021001231052.05307.00006720@mb-fn.aol.com>
Source record: 133739

If you want the traditional old glass ones, check ebay or an antique store.

I would like to have a bunch of them too.

Jack K9CUN

53. Re: Will a Rhombic antenna work better than an R5?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 03:31:42 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <3D9A689E.95EF5785@ziplog.com>
Source record: 133741

I note your call Bob and idly presume it might be close to thunderstorm alley in Texas ... grin.

Bob Miller wrote:

> StarGazer <pti@capnet.com> wrote:
>
> >af
>
> Depends. An R5 has no gain, but is omnidirectional. A rhombic has gain, but is
> highly directional.
>
> Bob
> k5qwg

A man I met who has thousands of acres and thousands of pine trees and owned a creosote plant with free 100 foot poles told me about rhombics in practice in the static ridden part of Texas, OK?

Wonderful antennas, they are! Gain, directivity and so on, if either of two directions is on you gotta work it menu! But per this gent there is a hidden gotcha for TRW alley! He claims they are terrible receiving antennas during frontal passages with all the static. Reason; rhombics have numerous high angle spike spurious lobes in their patterns, at least for practical sized thingees we'd normally see for HF ham bands. Per his experience, if he ever got the thunderstorms within not to many miles from him, the additional pickup of thje high angle static generated from all these tronadas makes the antenna a very bad choice while they are around. The high angle lobes and static noise pickup from them significantly destroy the antenna's effectiveness in these situations.

Of it all he noted that despite the magnificent gain on transmit and receive, you still can't work 'em if you can't hear 'em.

Not being affluent enough to try them for 80 and 40 that I like to work, I can't vouch for what he said. But having plotted them on computer I can understand how he just might be right.

Mike - W5WQN in the Bryan-College Station Texas, area ... Not as bad as Florida, but second or close to it, I guess, in the USA.

54. Re: end insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 04:05:20 UTC
From: Ray Hansmeier <rhansmeier@attbi.com>
Message-ID: <4gum9.5871$DN4.2370@sccrnsc01>
Source record: 133742
Cross-posted to: rec.radio.amateur.antenna,rec.radio.swap

Go to home depot or Lowes hardware stores. Look in the fencing area and you
will find electric fence insulators. 100 for a couple of bucks....
"lc" <larryc@northwest.com> wrote in message
news:3D99FDD9.772FD647@northwest.com...
> Used, Suitable for dipole ends.
>

55. Re: ts830 0 ts530

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 04:35:10 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210012035.15fcfb7b@posting.google.com>
Source record: 133744

"IronHead" <slipkid@kwiknet.net> wrote in message
news:<iR9m9.55$iQG3.7274653@news2.randori.com>...
> can anyone tell me the difference between the two radios? They seem the same
> on the exterior.

As one said, mainly a couple or three extra goodies on the receiver
with the 830. The 530 has IF shift and thats about it as far as
receiver extras, except for the extra filters you can install. The 830
has IF shift, notch, VBT "variable bandwidth tuning", and a tone
control. The 530 is single conversion with an IF at 8.83 mhz. The 830
uses 8.83, but also 455 kc. So with the 830 you can install filters at
either or both IF freqs. I think overall, the VBT is what really sets
the 830 apart from the 530. With the 530, you are stuck at one
bandwidth depending on the mode/filter you are using. If you are on
SSB, you have 2.4 kc filtering , and thats it's unless you install
extra filters. With the 830, you can be at the 2.4 kc bandwidth, and
use the VBT to narrow down to 500 hz with that stock filter. So the
830 is a decent CW rig, even with no extra CW filter.
If you do have the 500 hz CW filter, as I do in my 830, you can narrow
down from appx 500 hz down to about 150 hz or so. Very narrow. So you
can pretty much set the selectivity to whatever you want. Also the 830
has a better speech compressor in it. It's a true RF clipping circuit,
and is one of the best speech compressors out there. Really works
well. You can pump up your average power, and still have good audio
quality. I'm not positive, but I don't think the 530 has a compressor
at all. Both are real good radios, and the transmitters are basically
the same. Both radios have good audio quality, etc. But the 830 has
the extra receiver goodies. It's an old radio, but for just basic
receiver performance, not counting fancy digital bells and whistles,
it can compete with nearly anything out there. I've got an TS-830 and
a VFO-230. The VFO-230 will work with either radio, and is rock stable
from even a cold start. No drift at all with that VFO, and has 5
memories. That VFO makes the 830 feel kind of like a 930.
The internal 830 or 530 vfo's will drift some with temp changes being
an old style L/C vfo. Some people don't notice it much, some do. I'm
fairly anal retentive about stability, so it bugged me have the radio
drift up and down 40 cycles with the A/C cycling off and on. None of
that with the PLL VFO-230.
I recommend it over the VFO-240, which is a dupe of the intermal L/C
vfo.
The 830 is the best of all the old kenwood hybrid tube/solid state
rigs. And it and the 530/530sp's were the last ones made before they
went totally solid state.
MK

56. Re: Boycott The Body Shop !!! 8624

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 06:06:26 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <upl375lvc4od3b@corp.supernews.com>
Source record: 133745
Cross-posted to: rec.outdoors.fishing.fly.tying,rec.radio.amateur.antenna,rec.music.artists.springsteen,uk.rec.crafts.sewing

What a load of processed horse feed! No one has taken away free speech and
you well know it. Speak all the bovine excrement you care to, just stand by
for disagreement. While you have the right to say what you care to, that
same guarantee does not require acceptance of what you espouse.

Nice troll though...

"Alexander S. Wood" <alec_wood@dont.spam.me.ntlworld.com> wrote in message
news:D0om9.1900$L6.130434@newsfep2-win.server.ntli.net...
>
> "Moe Hailstone" <colonelnospamdax@hotmail.com> wrote in message
> news:J3Ml9.379003$w17.39230@post-02.news.easynews.com...
> > Why--are you trying to prove her point?
> >
> >
>
> It seems that they are. I am afraid as far as "free speech" on current US
> policy goes we are well and truly into "You're either with us or against
us"
> territory. Anyone who dares crticise or in any way question the direction
we
> are going in is instantly branded a terrorist sympathiser, an enemy of
free
> speech, or "anti-American" as I will now be by countless mindless souls
for
> saying so.
>
> I wish they would answer me one thing though, how can someone be an "enemy
> of free speech" by exercsing their right to it? Converseley how can a
> government removing the right to free speech be protecting it?
>
> America - "the home of the brave", I don't doubt it, but "the land of the
> free"? come on, you must be joking.
>
> Alec Wood M1BNK
> Teesside UK
>
> BTW Maybe Iraq would be more willing to let the weapons inspectors in if
> fewer of them publically admitted being on the CIA payroll as soon as they
> got out Iraq.
>
>

57. Re: Boycott The Body Shop !!! 8624

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 06:14:34 UTC
From: angelagrace <cryinthesun@juno.com>
Message-ID: <3D9A8ECA.D4624704@juno.com>
Source record: 133746
Cross-posted to: rec.outdoors.fishing.fly.tying,rec.radio.amateur.antenna,rec.music.artists.springsteen,uk.rec.crafts.sewing

"Alexander S. Wood" wrote:

> I am afraid as far as "free speech" on current US
> policy goes we are well and truly into "You're either with us or against us"
> territory. Anyone who dares crticise or in any way question the direction we
> are going in is instantly branded a terrorist sympathiser, an enemy of free
> speech, or "anti-American" as I will now be by countless mindless souls for
> saying so.
>
> I wish they would answer me one thing though, how can someone be an "enemy
> of free speech" by exercsing their right to it? Converseley how can a
> government removing the right to free speech be protecting it?

So I take it that Anita Roddick was once again practicing what she preaches and the usual suspects took offense. Back in the day, Body Shop bags had a quote on them that said, "The job of a good citizen is to keep his mouth open." Don't recall to whom it was attributed, but it seems Ms Roddick lives it. Good for her.

What's really funny is that someone would think that Ms Roddick's words would offend her patrons, who consist of apolitical women who love the smell of her products (one of the best manufactured smells on the planet) and political women who don't care about makeup and stuff like that but like to support a cheeky woman who tells it like it is. It's kinda like the mentally challenged who think that trashing Steve Earle's song in the press will all of a sudden cause radio stations not to play his stuff. Where do these people come from anyway?

Angela
--
Karma Police
Arrest this man he speaks in maths
He buzzes like a fridge
He's like a detuned radio

58. Re: tower paint

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 06:49:42 UTC
From: Bill Nelson <billn@spock.peak.org>
Message-ID: <ane4u5$3fp$1@quark.scn.rain.com>
Source record: 133747

Brian Kelly <kelly@dvol.com> wrote:

> . . . but then why were my 4el 20m and 3el 15/10 aluminum yagis just
> about as good as new after 30 years up and the tower had gotten
> pounded? . . .

One possibility that comes to mind is that the aluminum is actually coated with a thin coat of Al2O3. In the pure crystaline form, this is known as sapphire. For microabrasives, it would be quite resistant to wear.

--
Bill Nelson (billn@peak.org)

59. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 07:33:36 UTC
From: amfowler@melbpc.org.au
Message-ID: <3d9a9f87.2308980@news.melbpc.org.au>
Source record: 133748

fractenna@aol.com (Fractenna) wrote:

>>As for antenna wire..... Probably too hard and brittle. A poor choice for
>>mechanical reasons.
>>
>>Steve
>
>Actually, it was recommended for the very opposite of those attributes.
>Do you know conductivity?
>
I cannot comment on beryllium copper, but there is
another copper alloy that is (was?) widely used by telephone
companies for bare overhead lines. However we used it for
rhombic receiving aerials without any problems (70 foot
wooden poles - three wire rhombic, HF reception on SSB etc.)

I think it might be cadmium copper, but I'm not sure
- I haven't been in that work since 1967 or 8.

regards, Alan.

Try asking the external plant people from your local
telco to see if they can remember it.

60. Re: What gauge wire for Windom?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 11:49:44 UTC
From: Max <ve3tmt@yahoo.ca>
Message-ID: <04Bm9.5627$Kg4.907713@news20.bellglobal.com>
Source record: 133749

Thanks for the info guys, I will be going with 16 gauge stranded. I can order it through work, but too many choices available.

61. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 12:08:36 UTC
From: fractenna@aol.com
Message-ID: <20021002080836.13070.00007929@mb-mf.aol.com>
Source record: 133750

>fractenna@aol.com (Fractenna) wrote:
>
>>>As for antenna wire..... Probably too hard and brittle. A poor choice for
>>>mechanical reasons.
>>>
>>>Steve
>>
>>Actually, it was recommended for the very opposite of those attributes.
>>Do you know conductivity?
>>
> I cannot comment on beryllium copper, but there is
>another copper alloy that is (was?) widely used by telephone
>companies for bare overhead lines. However we used it for
>rhombic receiving aerials without any problems (70 foot
>wooden poles - three wire rhombic, HF reception on SSB etc.)
>
> I think it might be cadmium copper, but I'm not sure
>- I haven't been in that work since 1967 or 8.
>
> regards, Alan.
>
> Try asking the external plant people from your local
>telco to see if they can remember it.
>

Much obliged and thanks!

73,
Chip N1IR

62. Re: Boycott The Body Shop !!! 8624

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 12:54:22 UTC
From: rb608 <strescon@worldnet.att.net>
Message-ID: <20Cm9.66526$1C2.3209021@bgtnsc04-news.ops.worldnet.att.net>
Source record: 133751
Cross-posted to: rec.radio.amateur.antenna,rec.music.artists.springsteen,uk.rec.crafts.sewing

"angelagrace" <cryinthesun@juno.com> wrote in message
news:3D9A8ECA.D4624704@juno.com...
> "Alexander S. Wood" wrote:

blah blah blah.

What possible defect in your thought process leads all of you to think that
4 widely disparate newsgroups give a shit about anybody's opinion of this?
Morons.

63. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 13:26:51 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <caslpuocvttjupo49e74upduqie2u0jisk@4ax.com>
Source record: 133753

On 06 Sep 2002 01:53:11 GMT, fractenna@aol.com (Fractenna) wrote:

>How the engine works is not important; what is key is its ability to identify
>something 'better' than what's out there. It is basically a black box for this
>exercise. It is the I/O that's of interest.

A relevant link could be found here, but it may be gone now.

http://people.bu.edu/nca/aces.pdf

64. Re: Mil Sat Antennas etc.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 13:26:52 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <uaslpukgvb69cd4m6f79atqg1t35flisjr@4ax.com>
Source record: 133752

On Sat, 28 Sep 2002 01:24:51 -0400, Bill M <"exray"@no
spam-caribe.net> wrote:
>
>I'd have to be a lot more net savvy than you to know what your laconic
>acronym OPSEC is.

It's a basic military term. So is COMSEC.

> A Google search reveals another wanky security scheme

God only knows what you found. Were there any ".mil" sites in your
comprehensive research?

>and if that is your answer to protecting servicemen, well then you might

It's the "answer" for those responsible for force protection.

>as well bugger off lest you become a buggeree of the "savage arab

Why are you fixated on Arabs and buggery? A fan of T.E.Lawrence maybe?

>hordes" which seems to be your inclination given your treatment of my
>comment...Geezus, get off the freaking internet if it does that to you.
>-WX4A

What an odd rant.

65. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 13:26:53 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <3islpu0jpmicivs4f80ml406djsrqbs8vu@4ax.com>
Source record: 133754

On 01 Oct 2002 22:45:01 GMT, fractenna@aol.com (Fractenna) wrote:

>Anyone have any experience with this stuff for wire antennas? I think its a bit
>lossy, and anything with Be in it makes me a bit cautious.
>
>Appreciate any feedback from users.
>
>73,
>Chip N1IR

Beryllium is carcinogenic. As far as I know the use of Be on rocket nozzles is its most prominent use. One of my colleagues estimates that the public health effect of an exchange of nuclear missiles would be driven more by Be in the atmosphere than by the radiological agents produced.

Does beryllium wire bend well?

66. Re: Will a Rhombic antenna work better than an R5?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 14:00:19 UTC
From: richardharrison@webtv.net
Message-ID: <8731-3D9AFBF3-27@storefull-2311.public.lawson.webtv.net>
Source record: 133755

Mike, W5WQN wrote:
'Of it all he noted that despite the magnificent gain on transmit and receive, you still can`t work `em if you can`t hear `em."

Magnificent gain and directivity are opposite sides of the same coin. Their values increase and decrease together.

If you could not "hear `em" using a rhombic, most of the world`s commercial receiving stations would be deaf because they use rhombics.

Signal versus noise determines reception. Directivity of the rhombic is by far the best where it is aimed. That`s designed to be the direction of the desired signal. The beamwidth of a practical rhombic may be 15 degrees, the gain may be 15 dbd, and the strongest side-lobe may be 10 db down from the main-lobe.

The main-lobe signal to noise is no worse than for a non-directional antenna. That is, when the signal and noise directions coincide. But, noise from directions outside the main lobe is reduced by a minimum of 10 db.

The rhombic may mistakenly be reputed as a static grabber because it is a broadband antenna. Lightning produces "static" across a wide spectrum. But, it is the job of a receiver to provide frequency selectivity. In commercial stations the receivers are designed with the necessary preselection.

Best regards, Richard Harrison, KB5WZI

67. Re: Help needed in slot antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 14:10:19 UTC
From: richardharrison@webtv.net
Message-ID: <8731-3D9AFE4B-31@storefull-2311.public.lawson.webtv.net>
Source record: 133758

anand wrote:
"---more on chokes."

You can mill a moat in thick materials (waveguide flanges) or erect a fence on thin materials.

Best regards, Richard Harrison, KB5WZI

68. Re: What gauge wire for Windom?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 14:25:36 UTC
From: richardharrison@webtv.net
Message-ID: <28093-3D9B01E0-7@storefull-2314.public.lawson.webtv.net>
Source record: 133757

Max, VE3TMT wrote:
"I will be going with 15 gauge stranded."

Probably a good choice.

The most strength for the smallest wire with sufficient surface conductivity is Copperweld. That`s why commercial and military antennas use it. Stranded Copperweld is popular because the steel inside makes the solid stuff springy and hard to work with.

Best regards, Richard Harrison, KB5WZI

69. Re: Icom 706 control program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 14:27:55 UTC
From: Brent <bc316/@yahoo.com>
Message-ID: <LnDm9.48370$aU3.2440550@typhoon.kc.rr.com>
Source record: 133756

Looks interesting. I'll give it a try tonight..

-Brent
N9BC

"Fred Hambrecht" <w4jle@charter.net> wrote in message
news:upksa9fg5avp7b@corp.supernews.com...
> Stumbled over this site, it has a free program (windows) to control all
> models of the 706.
>
> http://www.honeycom.com/main.htm
>
>

70. Re: What gauge wire for Windom?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 14:46:34 UTC
From: richardharrison@webtv.net
Message-ID: <28091-3D9B06CA-20@storefull-2314.public.lawson.webtv.net>
Source record: 133761

Max, VE3TMT wrote:
"I will be going with 16 gauge stranded."

Sorry, I fat-fingered "15 gauge" on copying.

The military rhombic kit contained 3xNo.12 twisted Copperweld cable for use in curtains, transmission lines and other purposes (tow a car?). They never broke.

Best regards, Richard Harrison, KB5WZI

71. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 14:48:12 UTC
From: "Stephen C. Robbins" <srobbinsNoSPaMDUDES@netacc.net>
Message-ID: <3d9b071f@news.netacc.net>
Source record: 133759

"Fractenna" <fractenna@aol.com> wrote in message
news:20021001230642.15264.00006235@mb-mn.aol.com...
> >As for antenna wire..... Probably too hard and brittle. A poor choice
for
> >mechanical reasons.
> >
> >Steve
>
> Actually, it was recommended for the very opposite of those attributes.
> Do you know conductivity?
>
> Thanks!
>
> 73,
> Chip N1IR

Some hardening would be prefered over pure copper. The hardness and
conductivity would be a factor of the actual alloy created.

The best source of info on both is the manufacturer's site at
http://www.brushwellman.com/www/Technical/DesignGuide/Appendix.html

Note that often when they speek of conductivity they are refering to thermal
conductivity. You have to watch the context in which the term is being
used. At the bottom of the page are links to the tech tables for electrical
conductivity.

My father worked for them for many years before starting his own foundry,
machine shop, and plastics factory. Be is one of the most fascinating
materials I have ever encountered.

Steve

72. 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 15:10:26 UTC
From: JustThinkin <look@life.org>
Message-ID: <3d9b0c74$0$1420$272ea4a1@news.execpc.com>
Source record: 133760

I am new to ham radio and have the opportunity to build a 260+ feet horizontal loop around the eaves of the house. One problem I have to deal with is the ladder-line.

I was wondering, what advantages are there between using 600 ohm ladder line Vs. the 450 ohm stuff for use with a low height above ground horizontal loop?

Why use one type or the other for this type of antenna? I will be using an old Johnson Matchbox if that makes any difference.

Thanks

73. Re: WTB: end insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 15:24:34 UTC
From: richardharrison@webtv.net
Message-ID: <28092-3D9B0FB2-19@storefull-2314.public.lawson.webtv.net>
Source record: 133763

Jack, K9CUN wrote:
"I would l would like to have a bunch of them too."

Compression insulators have the advantage that the wire doesn`t fall when an insulator is crushed.

When voltage rating is low or capacitance is high, multiple insulators are used. Look at the guy attachments to a broadcast tower next chance you get.

Best regards, Richard Harrison, KB5WZI

74. Re: Ideas on copper wire stretching and sagging

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 15:43:16 UTC
From: dan <danlx@execpc.com>
Message-ID: <3d9b1475$0$1425$272ea4a1@news.execpc.com>
Source record: 133762

On 01 Oct 2002 23:14:37 GMT, k3bu@aol.com (Yuri Blanarovich) wrote:

>Why not pre-stretch and don't worry about "carriers" for the wire?
>Or use hard drawn copper from old telegraph or telephone wires/poles.
>
>Yuri
Hi Yuri,
Cause most of us use what we have on hand and what is cheapest/easist
to get.
Dan
N9JBF

I've rambled enough, back to the rocking chair. ZZZZZZZZZ
Remove left x for e-mail reply.

75. Re: Boycott The Body Shop !!! 8624

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 16:15:04 UTC
From: Vito <vito@crosslink.net>
Message-ID: <3D9B1B88.4D667284@crosslink.net>
Source record: 133764
Cross-posted to: rec.radio.amateur.antenna,uk.rec.crafts.sewing

"Alexander S. Wood" wrote:
>
> It seems that they are. I am afraid as far as "free speech" on current US
> policy goes we are well and truly into "You're either with us or against us"
> territory.....

Please, please understand the reason for this retoric and for the whole debate. It has nothing to do with Saddam. As Bush's press secretary pointed out, Saddam could be eliminated with a single bullet and anyone familiar with US capability knows that is an extremely viable option which requires no world or even congressional approval.

Republicans do need an issue to divert US voters from our shrinking investments, at least until the November elections. The "You're either with us or against us" retoric can be useful in painting Democrats as traitors to democracy and the American way. Sorry our overseas friends have gotten dragged into it.

76. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 16:33:00 UTC
From: KA9CAR <nospam@nospam.usa>
Message-ID: <anf6t5$1dro$1@news1.tribune.com>
Source record: 133765

Great choice of antenna tuner, it will do you well. If you have trouble matching any particular band, change the feed line length by 1/8 to 1/4 wave on that band, and try again. I use mine for all bands between 80 and 10.

As for feeding the loop.

The 300 ohm line is lighter, and attracts less attention than ladder line. You can mount it using T.V. feed line standoffs. The 100 foot lengths of 22 gauge they sell at RS for $10 has served me well for years.

The impedance at the tuner will be different with equal lengths of 450 or 300, but not necessarily better.

Since you are running this around the house, I take it you will not be trying to feed it a Kilowatt. You will be able to earn the "Worked all electronic devices in my house" award with only 100 watts. If you are running QRP you will have less trouble.

Good Luck
KA9CAR

JustThinkin <look@life.org> wrote in message
news:3d9b0c74$0$1420$272ea4a1@news.execpc.com...
> I am new to ham radio and have the opportunity to build a 260+ feet
> horizontal loop around the eaves of the house. One problem I have to deal
> with is the ladder-line.
>
> I was wondering, what advantages are there between using 600 ohm ladder
line
> Vs. the 450 ohm stuff for use with a low height above ground horizontal
> loop?
>
> Why use one type or the other for this type of antenna? I will be using
an
> old Johnson Matchbox if that makes any difference.
>
> Thanks
>
>

77. Re: Tower to Verticle Ant. Spacing ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 16:37:47 UTC
From: richardharrison@webtv.net
Message-ID: <25489-3D9B20DB-59@storefull-2313.public.lawson.webtv.net>
Source record: 133766

ynot--- wrote:
"Is there any "rule of thumb" for spacing of a vertical antenna side mounted on a tower?"

The problem is almost the same as a horizontal antenna above the earth. Just look at the horizontal antenna with your head on the ground. There is a difference. The tower face is small.

At 1/2-wave distance from the reflecting surface, all the energy doesn`t make a complete about-face at the reflecting surface, but you do get a null in the direction of the antenna. The reflection is weaker than at closer spacing because less current is induced in the reflector (tower). So, the null is not too severe.

You could do as is usually done and split the energy between multiple radiators located around the tower to get an omni pattern. You can otherwise accept something less than even spacial distribution.

The farther from the tower, the less its influence, but there may be more nulls.

See Fig 12 on page 3-11 of the ARRL Antenna Book (19th edition) for a pattern idea. Substitute tower for ground, and horizontal distance for vertical height.

The antenna catalog should show expected patterns with various mounting schemes.

Best regards, Richard Harrison, KB5WZI

78. Removing rivets from Force beam - HELP Please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 17:26:03 UTC
From: Dennis/WR4i <wr4i@mindspring.com>
Message-ID: <anfa4sbmi1@murdoch.acc.Virginia.EDU>
Source record: 133767

Hi All,
Does anyone have a "quick & easy" way to remove the rivets in the Force type beams?
Thanks!
wr4i@mindspring.com

79. Re: Threat to worldwide use of 70cm band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 17:35:06 UTC
From: Todd <ktm@lanset.com>
Message-ID: <3d9b2e4e@monitor.lanset.com>
Source record: 133768
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

I've got a better idea. Lets give them the freqs & then bomb them for
having and using them.

<lucifer@eternal-flames.gov> wrote in message
news:h34lpu8gsdc2u97nbvlnfus98dn4t8p5ll@4ax.com...
> On Tue, 01 Oct 2002 20:59:44 -0400, Mike Monett <Die@Spam.Bots> wrote:
>
> How about we use it as an excuse to bomb Iraq?
>
> Or Iran or India.... Any of those eastern countries beginning with
> 'I' will do..... How far east is Ireland?
>
> Old Nick.
>
> "Don't just 'Save the trees' - Talk to them!"

Hug them, Love them, They are our freinds!

80. Re: Ideas on copper wire stretching and sagging

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 17:35:48 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailnospamorama.com>
Message-ID: <P9Km9.8003$YK4.700455@e3500-atl2.usenetserver.com>
Source record: 133780

Yea, I was given a big spool of enamel covered # 15ga copper wire. It was from a tech school where the had taught motor/transformer rewinding a number of years ago. Still have most of spool.

--
73,
Chuck
KE4ETH

"dan" <danlx@execpc.com> wrote in message news:3d9b1475$0$1425$272ea4a1@news.execpc.com...
> On 01 Oct 2002 23:14:37 GMT, k3bu@aol.com (Yuri Blanarovich) wrote:
>
> >Why not pre-stretch and don't worry about "carriers" for the wire?
> >Or use hard drawn copper from old telegraph or telephone wires/poles.
> >
> >Yuri
> Hi Yuri,
> Cause most of us use what we have on hand and what is cheapest/easist
> to get.
> Dan
> N9JBF
>
> I've rambled enough, back to the rocking chair. ZZZZZZZZZ
> Remove left x for e-mail reply.

81. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 17:39:01 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailnospamorama.com>
Message-ID: <S9Km9.8005$YK4.700455@e3500-atl2.usenetserver.com>
Source record: 133781

Worked all electronic devices in my house. Now that's funny

--
73,
Chuck
KE4ETH

"KA9CAR" <nospam@nospam.usa> wrote in message
news:anf6t5$1dro$1@news1.tribune.com...
> Great choice of antenna tuner, it will do you well. If you have trouble

SNIP

> You will be able to earn the "Worked all
> electronic devices in my house" award with only 100 watts. If you are
> running QRP you will have less trouble.
>
> Good Luck
> KA9CAR
>
>
SNIP

82. Re: Ideas on copper wire stretching and sagging

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 17:54:37 UTC
From: mike c <md_removeunderscores_cola@evenlink.com>
Message-ID: <MPG.1804fce8cd2f0cfd9896b4@news.evenlink.com>
Source record: 133769

In article <20021001191437.01966.00010313@mb-mu.aol.com>,
k3bu@aol.com says...
> Why not pre-stretch and don't worry about "carriers" for the wire?
> Or use hard drawn copper from old telegraph or telephone wires/poles.
>
> Yuri
>
first, it was mentioned in a previous thread that the copper would
reach a point where it becomes brittle when streched beyond a point.
Ice, wind, etc. eventually it breaks. seems that copperweld was the
best for that app. i figure a light rope could be strung tight enough
to be pretty straight and still support a lighter wire which would be
under minimum tension.

second, you don't want to get caught swiping that old copper off the
poles. a lot of the tlelgraph wire is now owned by railroads where
you find it.
--
Best Regards,
Mike Colasono

83. Re: Boycott The Body Shop !!! 8624

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 18:01:27 UTC
From: "Alexander S. Wood" <alec_wood@dont.spam.me.ntlworld.com>
Message-ID: <dHGm9.229$186.2521@newsfep3-gui.server.ntli.net>
Source record: 133770
Cross-posted to: rec.outdoors.fishing.fly.tying,rec.radio.amateur.antenna,rec.music.artists.springsteen,uk.rec.crafts.sewing

"Fred Hambrecht" <w4jle@charter.net> wrote in message
news:upl375lvc4od3b@corp.supernews.com...
<snip>
> Nice troll though...
>

Thanks Fred, we aim to please

Alec

84. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 18:19:58 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <anfdce$p4o$0@208.206.142.87>
Source record: 133771

"W.G Ewald" wrote:
>
>
> Beryllium is carcinogenic. As far as I know the use of Be on rocket
> nozzles is its most prominent use. One of my colleagues estimates that
> the public health effect of an exchange of nuclear missiles would be
> driven more by Be in the atmosphere than by the radiological agents
> produced.

Beryllium oxide is used for the insulating material on virtually all
'power grid' tubes such as 8874,8875,8877,4cx300 etc. As far as I know
it is the only material used, but I'm not at all sure about that. There
used to be a caution notice within each new tube box, and there was
information disseminated otherwise cautioning users to never pulverize
beryllium oxide and then breath the resulting dust or powder. Seems it
was fatally toxic rather than carcinogenic in this form, though. It's
been years and I don't remember all the exact specifics.
If you don't crush or pulverize it, it is completely safe to handle
otherwise.

Dick

85. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 18:27:26 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <anfdqe$s3q$0@208.206.142.87>
Source record: 133772

JustThinkin wrote:
>
> I was wondering, what advantages are there between using 600 ohm ladder line
> Vs. the 450 ohm stuff for use with a low height above ground horizontal
> loop?
>

I'd use the 450 commercial insulted line, the difference in loss over
open wire line will be negligible.

> Why use one type or the other for this type of antenna? I will be using an
> old Johnson Matchbox if that makes any difference.
>

It's mostly a matter of personal preference. Most hams these day opt
for the 450 ohm line, outside a few purists who just want to use the old
original open wire line.

Dick

> Thanks

86. Re: Removing rivets from Force beam - HELP Please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 18:30:05 UTC
From: Max <ve3tmt@yahoo.ca>
Message-ID: <jXGm9.5922$Kg4.980242@news20.bellglobal.com>
Source record: 133773

"Dennis/WR4i" <wr4i@mindspring.com> wrote in message
news:anfa4sbmi1@murdoch.acc.Virginia.EDU...
> Hi All,
> Does anyone have a "quick & easy" way to remove the rivets in the Force
type
> beams?
> Thanks!
> wr4i@mindspring.com
>
> Drill them out.

87. Re: Removing rivets from Force beam - HELP Please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 19:56:06 UTC
From: Bob Miller <bamiller@texas.net>
Message-ID: <N06bPe7G8cKJUo3QDlm3HuQD3eyY@4ax.com>
Source record: 133774

"Dennis/WR4i" <wr4i@mindspring.com> wrote:

>Hi All,
>Does anyone have a "quick & easy" way to remove the rivets in the Force type
>beams?
>Thanks!
>wr4i@mindspring.com
>

Check your hardware store. I purchased a little tool for removing stripped
screws. They might have something similar for removing rivits.

Bob
k5qwg

88. Vertical w/without ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 20:56:36 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210021256.548f7687@posting.google.com>
Source record: 133775

Hi,

I'm not decided yet, but I would like to buy a R8 vertical to use it for DXing (due to place restriction).
My question is related to the use of ground and radials. I read many posts about this subject but until now none accurately answered to my question yet.

My location is on top of hills where the underground is constituted of rock (blue rocks as they are called, looks like marble but cheaper quality, and virtually impossible to break) with only about 30 cm of soil.

Can we consider such dense rock as a conductive material ? If it is, is it still a better conductor after rain/snow or is it worst (there are some rainy days in ON/LX...) ?

I question because I would like to use a vertical offering the minimum of space near ground level (an R8 placed near ground level requests a space of about 3m dia. if it uses radials 1.2m long). As I will place the vertical 2m high, fixed on the side of a cottage, I would like to restrict its horizontal extension to prevent any injury to people (not mandatory as radials will be probably over 2m high but useful).
If I can benefit of a conductive underground that could maybe help me to select a vertical without radials, if it is of quality and covering a coverage of most bands.

1ï¿½ is this idea of using a rocky underground as "ground" chimeric or realist and
2ï¿½ what vertical (brand, model) could offer this "simplicity" (to not having radials) and should be known as a great DX performer ?
3ï¿½ Otherwise, is there some chances to get a bad SWR (over 8) if I do not install the 6 radials coming with the R8, or has their removing another bad influence I don't know yet and that someone could explain me ?

Thanks for comments.

Thierry
ONL5183
http://www.astrosurf.com/lombry/menu-qsl.htm

89. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 20:58:54 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <Gewb4PHO41m9EAca@ifwtech.co.uk>
Source record: 133778

Dick Carroll wrote:
> Beryllium oxide is used for the insulating material on virtually all
>'power grid' tubes such as 8874,8875,8877,4cx300 etc. As far as I know
>it is the only material used,

Not so.

Beryllium oxide (beryllia) is toxic and very expensive to manufacture, so nobody uses it unless it's absolutely essential. The only places it's ever used are where you need its special combination of good insulation and high thermal conductivity. It may be used in a few places *inside* some ceramic-metal tubes, but the ceramic on the outside of those tubes is *not* beryllium oxide.

Think about it: the major part of the heat is released at the anode, and you don't want to let it flow down into the base - so for the main outside ceramic ring you need an ordinary material with a relatively low thermal conductivity. Even if it wasn't toxic and expensive, beryllia would be totally the wrong material here.

Likewise you'll find beryllia in some RF power transistors, as a thermally conducting insulator between the collector (where the heat is released) and the mounting stud or flange. But the main exterior 'pill' is ordinary ceramic.

BTW, it's also a fallacy that pink ceramic means beryllia. It doesn't.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

90. Re: Where do I purchased an AM loop... active or passive??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 21:04:36 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210021304.6d9da51a@posting.google.com>
Source record: 133776

StarGazer <pti@capnet.com> wrote in message news:<3D975B29.7D641BF5@capnet.com>...
>Where do I purchased an AM loop... active or passive??
>asdf

Hi,

Have you check on wellbrook website http://www.wellbrook.uk.com/
They sale several loops, ALA-1530 or even receive ant.ALA-330, both
are active mag loop, 1m diameter, suited for LW and HF. About 114-150
pounds or 250-300 euros with options.

Review of ALA-330 on eHam or
http://www.astrosurf.com/lombry/qsl-ala330.htm

Thierry
ONL5183

91. Idea to erect a longire high, very high ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 21:23:43 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210021323.da41247@posting.google.com>
Source record: 133777

Hi,

I 'm on the way to displace my 40m longwire from 3-5m high to a higher height (0.5 to 1 Lambda, so about 10-15m) to get an optimal response (more lobes) in the HF bands (and then to make a comparison with a future R8).

But,... how to erect a antenna so high ?

I have a house which roof top (chemny)is about 6-7 m high only and on the other side, excepting pintrees 30m high, this is open fields with a few apple trees here and there.

How to place my antenna in height without support ? How did you proceed in a similar environment ? Did you install 2 masts (di.5 cm, 2") 10m heigh each, well anchored in the soil at 3 or 4 points, and 40m apart in your garden ?

Nothing more simple for a "mini" beverage 40m long ?
If I change my mini "beverage" for an inverted V shape (so I only need 1 mast, is there a chance to get a modification in its lobes, sensitivity or directivity (in other words is a inverted V directive in the direction of the opening ?)

Thierry
ONL5183
http://www.astrosurf.com/lombry/menu-qsl.htm

92. Re: Tower to Verticle Ant. Spacing ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 21:41:57 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <FKJm9.20035$bY5.81433@bin4.nnrp.aus1.giganews.com>
Source record: 133779

For some calculated chartts look here:

http://www.decibelproducts.com/

Go to Support, Softwear tools, then download Sidemount.

"Nev" <ynotmetwo@bigfoot.com> wrote in message
news:jrlkpu06edlsfg9i77rg3kbarsj8mh4k9k@4ax.com...
> Is there any "rule of thumb" for the spacing of a verticle antenna
> side mounted on a tower.
>
> Firstly, I cant use the top of the tower so side mount is my only
> option.
>
> The "tower" is a 3" (75mm) single pole and the antenna is a
> commercial VHF 2 x 5/8 colinear for 163 mhz
>
> What is the minimum distance I can side mount the antenna and still
> obtain "reasonable" omni directional characteristics.
>
>
> Thanks
>

93. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 22:42:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3D9B7665.2090807@eznec.com>
Source record: 133782

Beryllia might also be occasionally used in place of alumina because of its lower dielectric constant (about 6 vs 10 for alumina). I once got to the point of having prototype beryllia hybrid circuit substrates fabricated for a high speed circuit, but the difference wasn't enough to solve the problem at hand so it didn't make it to production.

The most common application for beryllia I've seen is insulators for high power, high voltage (e.g., TV flyback) TO-3 power transistors. The combination of properties Ian mentions, good insulation and high thermal conductivity, are both needed in that situation.

The beryllia substrates I had fabricated, and insulators I've seen, were both white and indistinguishable by eye from alumina.

Roy Lewallen, W7EL

Ian White, G3SEK wrote:
> Dick Carroll wrote:
>
>> Beryllium oxide is used for the insulating material on virtually all
>> 'power grid' tubes such as 8874,8875,8877,4cx300 etc. As far as I know
>> it is the only material used,
>
>
> Not so.
>
> Beryllium oxide (beryllia) is toxic and very expensive to manufacture,
> so nobody uses it unless it's absolutely essential. The only places it's
> ever used are where you need its special combination of good insulation
> and high thermal conductivity. It may be used in a few places *inside*
> some ceramic-metal tubes, but the ceramic on the outside of those tubes
> is *not* beryllium oxide.
>
> Think about it: the major part of the heat is released at the anode, and
> you don't want to let it flow down into the base - so for the main
> outside ceramic ring you need an ordinary material with a relatively low
> thermal conductivity. Even if it wasn't toxic and expensive, beryllia
> would be totally the wrong material here.
>
> Likewise you'll find beryllia in some RF power transistors, as a
> thermally conducting insulator between the collector (where the heat is
> released) and the mounting stud or flange. But the main exterior 'pill'
> is ordinary ceramic.
>
> BTW, it's also a fallacy that pink ceramic means beryllia. It doesn't.

>

94. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 22:46:16 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <YGKm9.81072$jG2.4425042@bgtnsc05-news.ops.worldnet.att.net>
Source record: 133783

"Fractenna" <fractenna@aol.com> wrote in message
news:20021001184501.06895.00005999@mb-cq.aol.com...
> Anyone have any experience with this stuff for wire antennas? I think its
a bit
> lossy, and anything with Be in it makes me a bit cautious.
>
> Appreciate any feedback from users.
>
> 73,
> Chip N1IR

Hi Chip,

Beryllium copper as wire and sheet stock has been (is) used frequently in antenna design.

As an element, BE is lighter and stronger than AL and is used quite extensively. I believe that there is only one company in the US that refines and sells Be. Handling it as solid is fine. However, as a fine dust or powder, it can be dangerous to some people. About 2% of the population is allergic to it.

As an solid metal, Be is used quite extensively in space borne applications because of its light weight and its strength.

There is a company in MA that is one of the few in the US that actually work with solid Be - mostly machined parts.

I can't comment on the loss properties of Be copper, but don't think its that much of a problem.

Steve VE9SRB

95. Re: Removing rivets from Force beam - HELP Please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 23:27:53 UTC
From: Paul N3EOP <n3eop@arrl.or.callsign.net>
Message-ID: <Xns929BA77D65BADn3eophotmailcom@64.164.98.6>
Source record: 133784

"Dennis/WR4i" <wr4i@mindspring.com> wrote in
news:anfa4sbmi1@murdoch.acc.Virginia.EDU:

> Hi All,
> Does anyone have a "quick & easy" way to remove the rivets in the
> Force type beams?

I believe they use "Pop" rivets, which are "quick & easy" to remove with
a 1/8" drill. Keep a pair of needle nose pliers handy for the
inevitable "spinners" that don't want to drill out.

96. Re: Vertical w/without ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-02 23:35:55 UTC
From: Paul N3EOP <n3eop@arrl.or.callsign.net>
Message-ID: <Xns929BA8D9F48E8n3eophotmailcom@64.164.98.6>
Source record: 133785

lombryt@hotmail.com (Thierry) wrote in
news:db35a0c.0210021256.548f7687@posting.google.com:

> 2 what vertical (brand, model) could offer this "simplicity" (to not
> having radials) and should be known as a great DX performer ?

Force 12 Sigma-5. True vertical dipole, and a heck of a performer. No ground radials needed. Looks like a capital letter "I"; 9 feet high with the crossbars sticking out 2 feet on each side. I have mine on the roof (flat roof) in a bucket of concrete.

The only problem is that it doesn't cover 30m or 40m, but it is a bit cheaper than the R8. (I use Isotrons for 40 and 80.)

97. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 00:07:23 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ang1nr$180$0@208.206.142.78>
Source record: 133786

"Ian White, G3SEK" wrote:
>
> Dick Carroll wrote:
> > Beryllium oxide is used for the insulating material on virtually all
> >'power grid' tubes such as 8874,8875,8877,4cx300 etc. As far as I know
> >it is the only material used,
>
> Not so.
>
> Beryllium oxide (beryllia) is toxic and very expensive to manufacture,
> so nobody uses it unless it's absolutely essential. The only places it's
> ever used are where you need its special combination of good insulation
> and high thermal conductivity. It may be used in a few places *inside*
> some ceramic-metal tubes, but the ceramic on the outside of those tubes
> is *not* beryllium oxide.
>
> Think about it: the major part of the heat is released at the anode, and
> you don't want to let it flow down into the base - so for the main
> outside ceramic ring you need an ordinary material with a relatively low
> thermal conductivity. Even if it wasn't toxic and expensive, beryllia
> would be totally the wrong material here.
>
> Likewise you'll find beryllia in some RF power transistors, as a
> thermally conducting insulator between the collector (where the heat is
> released) and the mounting stud or flange. But the main exterior 'pill'
> is ordinary ceramic.
>
> BTW, it's also a fallacy that pink ceramic means beryllia. It doesn't.
>

Well, Good, Ian. I always was a bit reluctant to handle it knowing how
dangerous it could be. It's good to know there was no hazard after all.
I assume you've ran all that by the folks at Eimac, they're the people
who included the warning notices.

Dick

98. Re: Vertical w/without ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 00:22:05 UTC
From: Wayne Faris <wfaris@inebraska.com>
Message-ID: <3D9B8DAC.70443189@inebraska.com>
Source record: 133787

You would be better off using a Hy-Gain DX-77A. Recommended mounting height is about 8 foot off the ground. No radials needed. Covers 10 through 40 meters including the WARC band. Handles up to 1500 watts. I have one up on my roof and it works great. For more info check it out at:

http://www.hy-gain.com/hy-gain/products.php?prodid=DX-77A

Hope this helps.

Wayne L. Faris, KEï¿½BZ

Thierry wrote:

> Hi,
>
> I'm not decided yet, but I would like to buy a R8 vertical to use it
> for DXing (due to place restriction).
> My question is related to the use of ground and radials. I read many
> posts about this subject but until now none accurately answered to my
> question yet.
>
> My location is on top of hills where the underground is constituted of
> rock (blue rocks as they are called, looks like marble but cheaper
> quality, and virtually impossible to break) with only about 30 cm of
> soil.
>
> Can we consider such dense rock as a conductive material ? If it is,
> is it still a better conductor after rain/snow or is it worst (there
> are some rainy days in ON/LX...) ?
>
> I question because I would like to use a vertical offering the minimum
> of space near ground level (an R8 placed near ground level requests a
> space of about 3m dia. if it uses radials 1.2m long). As I will place
> the vertical 2m high, fixed on the side of a cottage, I would like to
> restrict its horizontal extension to prevent any injury to people (not
> mandatory as radials will be probably over 2m high but useful).
> If I can benefit of a conductive underground that could maybe help me
> to select a vertical without radials, if it is of quality and covering
> a coverage of most bands.
>
> 1ï¿½ is this idea of using a rocky underground as "ground" chimeric or
> realist and
> 2ï¿½ what vertical (brand, model) could offer this "simplicity" (to not
> having radials) and should be known as a great DX performer ?
> 3ï¿½ Otherwise, is there some chances to get a bad SWR (over 8) if I do
> not install the 6 radials coming with the R8, or has their removing

> another bad influence I don't know yet and that someone could explain
> me ?
>
> Thanks for comments.
>
> Thierry
> ONL5183
> http://www.astrosurf.com/lombry/menu-qsl.htm

99. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 00:22:16 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0210021622.64a6664a@posting.google.com>
Source record: 133788

fractenna@aol.com (Fractenna) wrote in message
news:<20021001184501.06895.00005999@mb-cq.aol.com>...
> Anyone have any experience with this stuff for wire antennas? I think its a bit
> lossy, and anything with Be in it makes me a bit cautious.
>
> Appreciate any feedback from users.

The stuff is used in many applications as conductive, non-corroding
springs in electrical devices. High-power rotary selector switch
wipers, etc. The hard-drawn or rolled types in particular would be
pains in the butt to get under control when coiling and uncoiling for
antenna purposes, much worse than Copperweld wire. Fuhgeddit, drive ya
nuts. More nuts actually.

>
> 73,
> Chip N1IR

w3rv

100. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 01:15:14 UTC
From: fractenna@aol.com
Message-ID: <20021002211514.05161.00007966@mb-mk.aol.com>
Source record: 133789

Thanks again to all for comments on the BeCU wire. Very helpful.

73,
Chip N1IR

101. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 01:23:42 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <607npu0f9l4ivbgo88dv8qifq03t791mf8@4ax.com>
Source record: 133790

On 2 Oct 2002 18:27:26 GMT, Dick Carroll <dixie@townsqr.com> wrote:

> I'd use the 450 commercial insulted line, the difference in loss over
>open wire line will be negligible.

Not when its wet!

Danny

102. Re: Ideas on copper wire stretching and sagging

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 01:55:39 UTC
From: k3bu@aol.com
Message-ID: <20021002215539.01154.00012708@mb-mq.aol.com>
Source record: 133791

>>
>first, it was mentioned in a previous thread that the copper would
>reach a point where it becomes brittle when streched beyond a point.
>Ice, wind, etc. eventually it breaks. seems that copperweld was the
>best for that app. i figure a light rope could be strung tight enough
>to be pretty straight and still support a lighter wire which would be
>under minimum tension.
>
>second, you don't want to get caught swiping that old copper off the
>poles. a lot of the tlelgraph wire is now owned by railroads where
>you find it.
>--
>Best Regards,
>Mike Colasono
>
>

Ekceeequuuuzeeee me!

First, you can prestretch any copper wire, of course you have to be careful not to overstretch or break it. You can feel after initial pull that there is more resistance and that's where you stop. That wire then becomes much stronger than originally, nice and straight, wont "flow" (unless abused).
If you have rope and it gets wet, then when you transmit with normal or decent power you can burn it off and find your antenna on the ground. Been there, done it. You need good insulators especially at the end where is high voltage.

Second, who told you to go swiping wires from telegraph poles? There are occasionaly abandoned wires/ lines with broken wires hanging from the poles. Or you can go and ask to depot, whatever, if they have any or know where is abondoned line. Free for asking and lasts lifetimes.

Live and learn!

Yuri, K3BU

103. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 01:58:10 UTC
From: gaschafer@attbi.com
Message-ID: <3d9ba46c.35803876@netnews.attbi.com>
Source record: 133792

On 2 Oct 2002 17:22:16 -0700, kelly@dvol.com (Brian Kelly) wrote:

>fractenna@aol.com (Fractenna) wrote in message
news:<20021001184501.06895.00005999@mb-cq.aol.com>...
>> Anyone have any experience with this stuff for wire antennas? I think its a bit
>> lossy, and anything with Be in it makes me a bit cautious.
>>
>> Appreciate any feedback from users.
>
>The stuff is used in many applications as conductive, non-corroding
>springs in electrical devices. High-power rotary selector switch
>wipers, etc. The hard-drawn or rolled types in particular would be
>pains in the butt to get under control when coiling and uncoiling for
>antenna purposes, much worse than Copperweld wire. Fuhgeddit, drive ya
>nuts. More nuts actually.
>
>>
>> 73,
>> Chip N1IR
>
>w3rv

I believe that it is used in most of the finger stock for large tube
sockets and rf cabinet door
seals.

73
Gary K4FMX

104. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 01:59:59 UTC
From: k9sqg@aol.com
Message-ID: <20021002215959.28570.00000153@mb-bh.aol.com>
Source record: 133793

Either would be acceptable. For multiband operation, the impedance will vary widely and either one should work and be low loss even at high SWRs.

73s,

Evan

105. Re: Vertical w/without ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 02:37:15 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <angagp$f0e$1@helle.btinternet.com>
Source record: 133794

Thierry, I have no idea what an R8 antenna is. It's just a number. It doesn't matter very much anyway.

But I think you are hopelessly over-complicating and confusing the issue. And you give no idea of what frequency bands you are interested in or whether you intend to transmit or just to receive. Stick to basics. Consider what previous multi-various postings you have read as entertainment value. KISS.

As you are on the top of a hill (an excellent location) with a very poor ground I suggest you don't buy anything. Just erect a vertical or sloper or horizontal dipole, as long as possible, roughly centre-fed with any open-wire or standard 450-ohm feedline, and see how it performs via a tuner at the transceiver end. Bring the feedline away from the antenna at 90 degrees for as long a distance as possible. Avoid a coaxial feedline like the plague!

To lengthen the dipole wire bend its ends at angles of roughly 90 degrees at any convenient different or same directions. Spend your money on the tuner rather than on the antenna. Or make your own tuner to cover your favourite bands.

A simple or dog's-back-leg dipole will perform reasonably well at all frequencies greater than the frequency at which its overall length is about 0.35 or 0.4 wavelengths. Average height above ground or very local obstructions is important. If your antenna length is very restricted there's nothing you can do about it except grin and bear it.

For its overall dimensions this will be the most efficient, multi-band, multi-directional DX antenna system you can expect at your site.

If you are really stuck for space the most efficient antenna is undoubtedly a magloop. It has a built-in tuner. But do not allow me to discourage experiments with dog's-back-legs. Don't throw money at the problem till you've tried everything else. That way both your bank-balance and enjoyable practical experience will be zero. ;o)

The DX will still be waiting eagerly !

****

PS: On the top of a hill, 30 cms of dry, well-drained soil can be expected to be lossy. Any vegetable, fertile matter helps. The underlying rock can be considered to be an insulator. But don't rule out such a situation. Many very short 15 cm buried ground radials of indeterminate length may work satisfactorily at the higher frequencies above 7, 10 or 14 MHz. A shallow-buried wire-mesh mat could be tried and could easily be kept damp

with an occasional bucket of slightly salt water. A short, bottom-loaded
vertical tuned to a single frequency could work well. Soil loss resistance
and radiating efficiency can be accurately determined with a hand-held
antenna impedance analyser at the base of a simple 1/4-wave resonant
vertical antenna. If the measured resonant resistance is less than 50 or 60
ohms then you are laughing.

========================
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
========================

> I'm not decided yet, but I would like to buy a R8 vertical to use it
> for DXing (due to place restriction).
> My question is related to the use of ground and radials. I read many
> posts about this subject but until now none accurately answered to my
> question yet.
>
> My location is on top of hills where the underground is constituted of
> rock (blue rocks as they are called, looks like marble but cheaper
> quality, and virtually impossible to break) with only about 30 cm of
> soil.
>
> Can we consider such dense rock as a conductive material ? If it is,
> is it still a better conductor after rain/snow or is it worst (there
> are some rainy days in ON/LX...) ?
>
> I question because I would like to use a vertical offering the minimum
> of space near ground level (an R8 placed near ground level requests a
> space of about 3m dia. if it uses radials 1.2m long). As I will place
> the vertical 2m high, fixed on the side of a cottage, I would like to
> restrict its horizontal extension to prevent any injury to people (not
> mandatory as radials will be probably over 2m high but useful).
> If I can benefit of a conductive underground that could maybe help me
> to select a vertical without radials, if it is of quality and covering
> a coverage of most bands.
>
> 1° is this idea of using a rocky underground as "ground" chimeric or
> realist and
> 2° what vertical (brand, model) could offer this "simplicity" (to not
> having radials) and should be known as a great DX performer ?
> 3° Otherwise, is there some chances to get a bad SWR (over 8) if I do
> not install the 6 radials coming with the R8, or has their removing
> another bad influence I don't know yet and that someone could explain
> me ?
>
> Thanks for comments.
>
> Thierry

> ONL5183
> http://www.astrosurf.com/lombry/menu-qsl.htm

106. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 02:39:11 UTC
From: "Stephen C. Robbins" <srobbinsNoSPaMDUDES@netacc.net>
Message-ID: <3d9badc0@news.netacc.net>
Source record: 133795

> "W.G Ewald" wrote:
> >
> >
> > Beryllium is carcinogenic. As far as I know the use of Be on rocket
> > nozzles is its most prominent use. One of my colleagues estimates that
> > the public health effect of an exchange of nuclear missiles would be
> > driven more by Be in the atmosphere than by the radiological agents
> > produced.
>

You failed to read the original post. He referenced Be alloyed with Cu. Berylium Copper. There is no way to create free particles of Berylium from this alloy except possibly with some exotic smelting process to remove the copper.

Even the rocket nozzels that Brush Wellman worked on were an alloy and not pure Berylium.

Steve

107. Re: Idea to erect a longire high, very high ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 03:05:53 UTC
From: richardharrison@webtv.net
Message-ID: <18199-3D9BB411-33@storefull-2318.public.lawson.webtv.net>
Source record: 133796

Thierry, ONL5183 wrote:
"---is an inverted V directive in the direction of the opening?"

Not much. Vertically polarized radiation from the wire slopes fills the wire-end nulls.

There was a short article by William Hanson, WA7OET in the March 1975 issue of "73" magazine on a "40m Inverted Vee Beam" in which he claimed the antenna array was "very satisfying".

An apex-driven Vee is backed with a parasitic Vee reflector. Spacing is 0.15 wl, more or less.

William made the driven element 492/MHz. This seems to be 1/2-wl in freespace for 40m. Feet equal 3.28 x meters if my recollection is correct.

For his reflector he added 5% to the length. Had he added a director, he said he would have subtracted 4%.

He calculated 0.15 wl as 18 ft. I get 19.68 ft, but think this is not critical. William doesn`t seem to give the apex angles, but advises they should be the same in the driven element and reflector ("using two equal length poles"). One tiny problem is the difference in lengths of the vees but they should end some distance above ground, actually, the higher the better. So there`s really no problem. The guys are slightly longer on the driven Vee, as it is shorter than the reflector.

William says: "I heard more DX from there (South America) than I have ever heard on 40 meters before."

William was in the Pacific Northwest State of Washington. I wish he had made some measurements of performance to share, but this was all I found.

If you don`t have good ground coductivity, two poles mght better be used to raise the ends of the dipole. Given good ground, the Vee beam is probably better and as William reported.

Best regards, Richard Harrison, KB5WZI

108. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 03:22:43 UTC
From: richardharrison@webtv.net
Message-ID: <18199-3D9BB803-34@storefull-2318.public.lawson.webtv.net>
Source record: 133799

Steve wrote:
"He referenced Be alloyed with Cu."

Remember the old toothpaste ad?:
Don`t be like Miriam. Use Iriam!

Don`t be sillyum. Use Berylium!

Best regards, Richard Harrison, KB5WZI

109. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 03:25:57 UTC
From: Bob Nielsen <nielsen@remove_this.oz.net>
Message-ID: <angdc5unc0@216.39.144.81>
Source record: 133797

On Wed, 2 Oct 2002 22:39:11 -0400, Stephen C. Robbins wrote:
>> "W.G Ewald" wrote:
>> >
>> >
>> > Beryllium is carcinogenic. As far as I know the use of Be on rocket
>> > nozzles is its most prominent use. One of my colleagues estimates that
>> > the public health effect of an exchange of nuclear missiles would be
>> > driven more by Be in the atmosphere than by the radiological agents
>> > produced.
>>
>
> You failed to read the original post. He referenced Be alloyed with Cu.
> Berylium Copper. There is no way to create free particles of Berylium from
> this alloy except possibly with some exotic smelting process to remove the
> copper.
>
> Even the rocket nozzels that Brush Wellman worked on were an alloy and not
> pure Berylium.
>

In the 1960s, I was working on the NASA ATS-1 Satellite at Hughes Aircraft. We made a cylindrical phased array at VHF using eight coaxial dipoles fabricated from beryllium (they were arrayed around the rocket motor and the thermal and weight characteristics of beryllium made it ideal for this application). Machining Be is a specialized task, as any cuttings or dust must be captured for proper disposal (this was outsourced). We handled the stuff VERY CAREFULLY.

If you have ever seen a photo of a satellite which resembled a squid, that's the one.

Bob, N7XY

110. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 03:35:44 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <angdug$4dg$0@208.206.142.95>
Source record: 133798

Dan Richardson wrote:
>
> On 2 Oct 2002 18:27:26 GMT, Dick Carroll <dixie@townsqr.com> wrote:
>
> > I'd use the 450 commercial insulted line, the difference in loss over
> >open wire line will be negligible.
>
> Not when its wet!

But wouldn't all the heat it generates then dry it off? :-)

111. Re: Vertical w/without ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 04:11:36 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210022011.626c130a@posting.google.com>
Source record: 133800

lombryt@hotmail.com (Thierry) wrote in message
news:<db35a0c.0210021256.548f7687@posting.google.com>...
> Hi,
>

>
> Can we consider such dense rock as a conductive material ? If it is,
> is it still a better conductor after rain/snow or is it worst (there
> are some rainy days in ON/LX...) ?

Rock is usually considered fairly poor ground. Water might help a
little, but not greatly enough to really consider a big help on those
days.
>
> I question because I would like to use a vertical offering the minimum
> of space near ground level (an R8 placed near ground level requests a
> space of about 3m dia. if it uses radials 1.2m long). As I will place
> the vertical 2m high, fixed on the side of a cottage, I would like to
> restrict its horizontal extension to prevent any injury to people (not
> mandatory as radials will be probably over 2m high but useful).
> If I can benefit of a conductive underground that could maybe help me
> to select a vertical without radials, if it is of quality and covering
> a coverage of most bands.

Is there a way to install the antenna high enough that the radials
wouldn't be a bother? The performance of the antenna would be better
also.
>
> 1ï¿½ is this idea of using a rocky underground as "ground" chimeric or
> realist and

I'd consider it fairly lousy as grounds go. But if you use a 1/2 wave
type of antenna "IE: R8, etc, that does not require radials, and mount
it up in the clear , it should do ok.

> 2ï¿½ what vertical (brand, model) could offer this "simplicity" (to not
> having radials) and should be known as a great DX performer ?

I guess great is relative, but any of the 1/2 wave type multiband
verticals should be about equal if they are the same appx height. I
don't know which is better. Never have bought one...

> 3ï¿½ Otherwise, is there some chances to get a bad SWR (over 8) if I do
> not install the 6 radials coming with the R8, or has their removing
> another bad influence I don't know yet and that someone could explain
> me ?

The radials on that antenna are decoupling radials to reduce common mode currents on the feedline. They are not used to reduce ground losses. You could very possibly have funky effects if you delete them. They are not required to have a decent match on a 1/2 wave in general, but they may be included in the overall design of that antenna, and may effect the electrical length a bit. I guess you would just have to try it. But, I don't recommend not using them. I'd try to raise the antenna a little higher on a mast so you can keep them.

MK

112. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 05:34:54 UTC
From: tdonaly@aol.com
Message-ID: <20021003013454.12930.00009072@mb-mg.aol.com>
Source record: 133801

Chip wrote,
>
>Anyone have any experience with this stuff for wire antennas? I think its a
>bit
>lossy, and anything with Be in it makes me a bit cautious.
>
>Appreciate any feedback from users.
>
>73,
>Chip N1IR
>

Hi Chip,
from an MSDS from ALCO Standard Co. for their product C17510,
Beryllium Copper Alloy 3, "This product presents no health hazards unless it
is welded, burned, ground, or cut." Also, an article cited by the Beryllium
Support Group of the National Jewish Medical Research Center, "MacCordick,
J.M.T. Youinon et al (1995), 'Chronic Beryllium Desease After Exposure to
Low-beryllium-content Copper.'" This last details the medical problems of a
young man who worked with 1.8% beryllium copper wire. Don't let anyone
tell you beryllium shouldn't be treated with respect.

Tom Donaly, KA6RUH

113. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 06:04:40 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <r3tAiEB439m9EA7J@ifwtech.co.uk>
Source record: 133803

Dick Carroll wrote:

>It's good to know there was no hazard after all.

Not unless you're operating a crusher plant.

>I assume you've ran all that by the folks at Eimac, they're the people
>who included the warning notices.
>
The information does ultimately come from Eimac. The warning notice is
there because the beryllia is there... but it's inside.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

114. Re: Horizontal Loops for HF - anyone using?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 06:19:03 UTC
From: night64@hotmail.com
Message-ID: <031020020219252004%night64@hotmail.com>
Source record: 133802

xx
In article <3d8ff1f4.7499023@news.newsfeeds.com>, nc6k@NOSPAMarrl.net
(NC6K) wrote:

> Funny that you should ask. After using Cushcraft verticals for the
> past 10 years, I decided to put up a "crazy loop". Construction
> details: approximately 300 feet of 16 gauge speaker wire (unzipped
> into single strand) purchased at home depot and fed with 450 Ohm
> window line (about 50 feet). The shape is a very distorted triangle:
> Feed point is eave of house (about 22' up), fans out to palm trees
> (both @ about 30') that are about 40 feet apart and 50 feet away.
> Then both converge at a 45 foot high tree on a 25' hill about 100'
> back and not really at the midpoint between the palms in the other
> axis.
>
> I listed all the details to point out that anything goes as long as
> you have a decent antenna tuner. My MFJ-989C can tune the loop from
> 160 to 6 meters with no problem. In every case since I put it up a few
> days ago, the loop is as loud or louder than my R-8 vertical. On 160
> and 80, using the vertical isn't even an option. I had one station in
> Minnesota ask me how many hundreds of kW I was using on 12M. I didn't
> think it was such a big deal until I switched to the vertical - she
> said I was about a 57! I've gotten similar comparison reports from
> South Korea, Kenya, Indiana, etc. In fairness to the vertical, I'm
> feeding it with about 150' of 9913 coax, so there's a few dB lost
> there.
>
> Anyway, hope my experience is of some use. Give it a try, you never
> know what will happen, and best of all - IT'S CHEAP!
>
> 73 de NC6K
>
>
> ----------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
> http://www.newsfeed.com The #1 Newsgroup Service in the World!
> -----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

115. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 09:43:38 UTC
From: fractenna@aol.com
Message-ID: <20021003054338.10406.00008633@mb-fx.aol.com>
Source record: 133804

>Hi Chip,
> from an MSDS from ALCO Standard Co. for their product C17510,
>Beryllium Copper Alloy 3, "This product presents no health hazards unless it
>is welded, burned, ground, or cut." Also, an article cited by the Beryllium
>Support Group of the National Jewish Medical Research Center, "MacCordick,
>J.M.T. Youinon et al (1995), 'Chronic Beryllium Desease After Exposure to
>Low-beryllium-content Copper.'" This last details the medical problems of a
>young man who worked with 1.8% beryllium copper wire. Don't let anyone
>tell you beryllium shouldn't be treated with respect.
>
>Tom Donaly, KA6RUH
>

Sounds like gloves and masks to make a solder connection. Very much appreciate
the info Tom; probably more of a hazard just working with the solder itself,
but certainly worth putting in the trivial amount of extra care needed.

73,
Chip N1IR

116. Re: Ideas on copper wire stretching and sagging

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 10:48:47 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3D9C208F.184770E3@oda.com.au>
Source record: 133805

mike c wrote:
>
> >
> > You are probably referring to the first draft of the message which I
> > cancelled because it had a typo and calc error in it... seems not all
> > news servers process the cancels correctly!
>
> i had that happen once. may be the server. my deletes are working and
> my ISP's news server is pretty lame. I'm using MicroPlanet Gravity
> for a reader. I'm an anti MS type. Pegasus Mail is a good deal, too.
> >
> > I do have a "semi-permanent" installation at a holiday cottage where a
> > sloper attached to a substantial tree bough is tensioned by a weight
> > suspended on a fibre rope running through a sheave block to the low end
> > of the wire... always a concern and subject to frequent inspection to
> > see that the sheave still runs free and that the rope hasn't developed
> > too permanent a kink. In very strong winds, I have observed the wire
> > pull 2m of rope out to allow more belly in the wire (which was almost
> > horizontal). One day it will blow down - hence the "semi-permanant"
> > status.
> >
>
> wow, 2m. i'm curious. what's the diameter of this rope that raises
> what weight that high in approx what mph wind?

I hope you are reading 2m to mean 2 metres, not 2 miles! The tensioning weight is only a 454g sinker (that was a 1lb snapper lead). The sea weather forecast that day was 50 knots (about 90Km per hour). Official weather observations were gusts to 120Km/hour. I have no idea what it actually was around the antenna... but it was pretty strong... however no building damage in the area. The tensioning system is really to let the tree move.

Whilst I say that it will come down one day, that will probably be a bough falling off the tree onto the wire, 'cause I am attached only half way up the tree.

>
> sheave and block. good terms. we never say pulley in CATV. roller. 90
> deg and 45 deg block. sheave is reserevd for those who know more than
> the average cable dog.

Well, as you know... a block and tackle is used for fibre rope and a purchase is used for wire rope (not just something one does with a credit card!). Rigging has some quaint terms and usage, hasn't it!

>
> it would be nice if you could thread your 2 or 3mm wire inside that
> hollow braid poly line. leave enough rope on the ends for tying off.
> too bad it doesn't come with a pull string inside. the 1/4" stuff is
> good to IIRC 150 lbs. haven't really weather tested it though.

Well, thing I find convenient for creating lash ups for prototyping / temporary work is make a bight near the end of the annealled wire and make a sheet bend through the bight with the rope. Holds quite securely. (No egg insulators or like used of course... well for the middle perhaps but not at the ends.)

>
> --
> Best Regards,
> Mike Colasono

Cheers... Owen

117. Re: Vertical w/without ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 10:56:24 UTC
From: k1bqt@aol.com
Message-ID: <20021003065624.12881.00007776@mb-mf.aol.com>
Source record: 133806

>They are not required to have a decent match on a 1/2 wave in general<

They are an integral part of the OCFD radiator and removing them is akin to removing a major portion of the antenna.

>but they may be included in the overall design of that antenna<

Must be included!

>...and may effect the electrical length a bit.<

An understatement. BTW, for a ground independent (or elevated feed) vertical, there's no penalty at all--and likely some advantage--to putting the radials on top where nobody can become tangled up in them. Better yet, flip the whole thing on its side and pick up 5 dB or so in performance (one of those nasty little secrets all-band vertical manufacturers don't advertise).

Rick K1BQT

118. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 11:18:16 UTC
From: fractenna@aol.com
Message-ID: <20021003071816.10377.00008230@mb-fx.aol.com>
Source record: 133807

One of our august NG netizens sent along the following URL off-line. I think its worth sharing:

http://tis.eh.doe.gov/be/webdoc1.html-ssi

'Be' is some tough stuff. Watch out for those emeralds!

Hmmm.. doesn't talcum powder contain 'Be'? Probably more risk from getting a haircut than cutting BeCU alloy wire.

I'm joking a bit;caution seems to be warranted at least.

73,
Chip N1IR

119. Re: Icom 706 control program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 11:38:05 UTC
From: Andy M <andrew.markham@virgin.net>
Message-ID: <kZVm9.838$iu6.57395@newsfep1-win.server.ntli.net>
Source record: 133808

Anybody know if it works on the 706 Mk 1

Andy

"Fred Hambrecht" <w4jle@charter.net> wrote in message
news:upksa9fg5avp7b@corp.supernews.com...
> Stumbled over this site, it has a free program (windows) to control all
> models of the 706.
>
> http://www.honeycom.com/main.htm
>
>

120. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 13:09:39 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <n6gopuo398u457inb7k0tv6pdv4vk0rlf8@4ax.com>
Source record: 133810

On 3 Oct 2002 03:35:44 GMT, Dick Carroll <dixie@townsqr.com> wrote:

>
>
>Dan Richardson wrote:
>>
>> On 2 Oct 2002 18:27:26 GMT, Dick Carroll <dixie@townsqr.com> wrote:
>>
>> > I'd use the 450 commercial insulted line, the difference in loss over
>> >open wire line will be negligible.
>>
>> Not when its wet!
>
>
> But wouldn't all the heat it generates then dry it off? :-)

No, its just water cooled. <grin>

Seriously, Wes, N7WS has done a study on this and the results were
published in the current ARRL Antenna Compendium.

Danny

121. Re: Vertical w/without ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 13:32:14 UTC
From: Bob Miller <bamiller@texas.net>
Message-ID: <3UWcPfRRVbKuejPToj80Gv8FG=0T@4ax.com>
Source record: 133809

lombryt@hotmail.com (Thierry) wrote:

> As I will place
>the vertical 2m high, fixed on the side of a cottage, I would like to
>restrict its horizontal extension to prevent any injury to people

Stick rubber balls on the tip of each radial :-)

Bob
k5qwg

122. Re: Threat to worldwide use of 70cm band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 14:25:57 UTC
From: Gary McAdams <g.m.mcadams@worldnet.att.net>
Message-ID: <VrYm9.402$ue4.19367@bgtnsc04-news.ops.worldnet.att.net>
Source record: 133811

Screwdriver King <ham@cheap.com> wrote in
> >
> Good! the world need less hams.. bitching & otherwise!

Where did this idiot come from?

> Ever notice the rec.radio.amateur.xxx newsgroups dwindling?

No. Possibly you need a real ISP?

> Ever listen to HF ??

As often as possible. What's your point?

You probably have no activity on HF because:

1. Your radio cannot receive.

2. You're an idiot.

3. You have the personality of a wet dishrag.

4. All of the above.

My money's on number four.

Gary WG7X

123. Re: Vertical w/without ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 16:59:05 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <o7topuolc26o9b6idmma3t9o87oj0pm8jo@4ax.com>
Source record: 133812

On 2 Oct 2002 13:56:36 -0700, lombryt@hotmail.com (Thierry) wrote:

>
>Thanks for comments.
>
>Thierry
>ONL5183
>http://www.astrosurf.com/lombry/menu-qsl.htm

Hi Thierry,

Stick with your G5RV or the wire antennas to the distant trees. If you want to experiment with verticals, buy aluminum tubing of the same height and drive it directly (through a tuner or through a match at the antenna end). As you have literally few options in regard to ground, then it shouldn't take long to try them all (an afternoon?).

No multi-band antenna is going to offer any better characteristics than what you have already, or could put up simply, and cheaply. The only benefit of these multi-band antennas is that you don't need to tune - maybe. Worse yet, is that any actual beneficial difference between the multi-band and the simple design is not perceptible (and hardly qualifies as beneficial, but you can use that as bragging rights to justify the cost).

73's
Richard Clark, KB7QHC

124. Re: Threat to worldwide use of 70cm band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 17:38:35 UTC
From: lucifer@eternal-flames.gov
Message-ID: <t0vopugv3jgevf0aeuj3v9m8mf7atbpus6@4ax.com>
Source record: 133673
Cross-posted to: alt.ham-radio.hf,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

On Thu, 03 Oct 2002 09:16:11 +0200, Rob N.
<robnews3@xs4all.nl.removethis> wrote:

>Let me make a well-known statement: use it or loose it.

As Edwina said to John.

Old Nick.

125. Re: Removing rivets from Force beam - HELP Please>>TXs!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 18:05:16 UTC
From: Dennis/WR4i <wr4i@mindspring.com>
Message-ID: <ani0qabfj1@murdoch.acc.Virginia.EDU>
Source record: 133813

Thank you for the suggestions guys. Also got a reply direct from the "FORCE"
!! Confirmed my suspicion. There's no "easy way". I had high hopes that
there was some "secret tool" out there. :(
Thanks again.
(when I get this all done (200++ rivets??) I'll be back with a Force C-3 for
sale. "NIB"...if it will fit!

"Dennis/WR4i" <wr4i@mindspring.com> wrote in message
news:anfa4sbmi1@murdoch.acc.Virginia.EDU...
> Hi All,
> Does anyone have a "quick & easy" way to remove the rivets in the Force
type
> beams?
> Thanks!
> wr4i@mindspring.com
>
>

126. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 18:29:10 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <i23ppuk3ol5pc3p2fdh22qrgmjerdap8ah@4ax.com>
Source record: 133815

On Thu, 3 Oct 2002 16:30:21 GMT, ehramm@dk3uz.ampr.org (Edmund H. Ramm) wrote:

>
> Doesn't matter if dry or wet. And they don't even care whether they
>get insulted commercially or homemade.
>

Oh? And how did you determine that?

Danny

127. Re: Icom 706 control program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 18:44:41 UTC
From: Brent <bc316/@yahoo.com>
Message-ID: <te0n9.49028$aU3.2487504@typhoon.kc.rr.com>
Source record: 133814

Seems to work ok.. Now If I can find one that will back up my memories and keep the pl tones.

-Brent

"Brent" <bc316/@yahoo.com> wrote in message news:LnDm9.48370$aU3.2440550@typhoon.kc.rr.com...
> Looks interesting. I'll give it a try tonight..
>
> -Brent
> N9BC
>
> "Fred Hambrecht" <w4jle@charter.net> wrote in message
> news:upksa9fg5avp7b@corp.supernews.com...
> > Stumbled over this site, it has a free program (windows) to control all
> > models of the 706.
> >
> > http://www.honeycom.com/main.htm
> >
> >
>
>

128. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 19:08:02 UTC
From: Bob Nielsen <nielsen@remove_this.oz.net>
Message-ID: <ani4ii$lh8$0@216.39.144.81>
Source record: 133816

On Thu, 03 Oct 2002 11:29:10 -0700, Dan Richardson wrote:
> On Thu, 3 Oct 2002 16:30:21 GMT, ehramm@dk3uz.ampr.org (Edmund H.
> Ramm) wrote:
>>
>> Doesn't matter if dry or wet. And they don't even care whether they
>>get insulted commercially or homemade.
>>
> Oh? And how did you determine that?

It's true. I have insulted both dry and wet ladder line and gotten no response whatsoever. On the other hand, I found RG-58 coax to be a bit thin-skinned, compared to hardline.

Bob, N7XY

129. How deep do I have to bury my radials??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 19:21:33 UTC
From: StarGazer <pti@capnet.com>
Message-ID: <3D9C98BC.D456F913@capnet.com>
Source record: 133818

Inverted-L for 160 m.
Is the depth of my insulated radials critical?

I'd rather bury them about 1 or 2 inches.

130. Re: Icom 706 control program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 19:22:59 UTC
From: Alan Beagley <abeagley@optonline.net>
Message-ID: <3D9C9913.1020602@optonline.net>
Source record: 133817

As far as I have been able to find out (and others have agreed with my findings), there is no way of restoring the PL tones on an IC-706MkIIG: the tone can be turned on and off remotely, but its frequency cannot be controlled remotely.

-=-
Alan, AB2OS

Brent wrote:
> Seems to work ok.. Now If I can find one that will back up my memories and
> keep the pl tones.

131. FT-ONE Parting Out!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 19:51:03 UTC
From: "Mitch, W4OA" <w4oa@arrl.net>
Message-ID: <upp7t8112q4v93@corp.supernews.com>
Source record: 133676
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.s

ups trashed my ft-one beyond repair... so i am parting
it out...

gone - if board, ram board, fm board
left - everything else, including knobs, meters, power
supply, etc.

i also have the original owners manual and the yaesu
technical (service) manual...

no reasonable offer(s) refused!

mitch, w4oa
w4oa@vibroplex.com

132. Re: FT-ONE Parting Out!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 19:56:20 UTC
From: "Mitch, W4OA" <w4oa@arrl.net>
Message-ID: <upp875pvbk4h89@corp.supernews.com>
Source record: 133677
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,rec.radio.swap

```
"Mitch, W4OA" <w4oa@arrl.net> wrote in message news:...
>
> ups trashed my ft-one beyond repair... so i am parting
> it out...
>
> gone - if board, ram board, fm board
> left - everything else, including knobs, meters, power
> supply, etc.
>
> i also have the original owners manual and the yaesu
> technical (service) manual...
>
> no reasonable offer(s) refused!
>
> mitch, w4oa
> w4oa@vibroplex.com
>
>
>
```

133. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 20:11:31 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <lu8ppuoiji9ria17lpdqecqht0piss42ov@4ax.com>
Source record: 133669

On 3 Oct 2002 19:08:02 GMT, Bob Nielsen <nielsen@remove_this.oz.net>
wrote:

>On Thu, 03 Oct 2002 11:29:10 -0700, Dan Richardson wrote:
>> On Thu, 3 Oct 2002 16:30:21 GMT, ehramm@dk3uz.ampr.org (Edmund H.
>> Ramm) wrote:
>>>
>>> Doesn't matter if dry or wet. And they don't even care whether they
>>>get insulted commercially or homemade.
>>>
>> Oh? And how did you determine that?
>
>It's true. I have insulted both dry and wet ladder line and gotten no
>response whatsoever. On the other hand, I found RG-58 coax to be a bit
>thin-skinned, compared to hardline.
>

Bob,

Again I ask how did you measure the line? What method was used and
what was the loss dry and what was the loss wet?

Danny

134. Re: How deep do I have to bury my radials??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 20:39:33 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <ani9u203up@enews2.newsguy.com>
Source record: 133672

the shallower the better. many people either just cut the grass and stuff
them in a groove or just cut the grass short and bend pieces of wire to
'staple' them down then let the grass grow over them.

"StarGazer" <pti@capnet.com> wrote in message
news:3D9C98BC.D456F913@capnet.com...
> Inverted-L for 160 m.
> Is the depth of my insulated radials critical?
>
> I'd rather bury them about 1 or 2 inches.
>
>
>

135. Re: How deep do I have to bury my radials??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 20:54:14 UTC
From: Jim Pennino <jimp@specsol.com>
Message-ID: <aniapmmoi1@mail.specsol.com>
Source record: 133670

StarGazer <pti@capnet.com> wrote:
> Inverted-L for 160 m.
> Is the depth of my insulated radials critical?

Only with respect to how much digging you're able to do before
keeling over. :-)

> I'd rather bury them about 1 or 2 inches.

Seriously, unless you're talking in terms lots of feet, it makes
no difference.

Through exhaustive research I've found the optimum depth to be that
of the slit cut by my neighbor's gas powered edge trimmer. Hint, hint.

--
Jim Pennino

136. W9INN vs. G5RV jr.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 21:03:54 UTC
From: rcuffee@hotmail.com
Message-ID: <df27559b.0210031303.543d5309@posting.google.com>
Source record: 133671

I currently have a G5RV installed at 35'as an inverted-vee; however, it has lousy performance on 10 and 15 meters. Has anyone compared the W9INN antenna to the G5RV jr(10 -40 meters? Do you think the W9INN dipole will outperform the the G5RV?

Thanks,

Reggie

137. Re: Removing rivets from Force beam - HELP Please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 21:30:11 UTC
From: David Ornee <dornee@sbcglobal.net>
Message-ID: <DF2n9.1593$XX3.964595@newssrv26.news.prodigy.com>
Source record: 133675

"Dennis/WR4i" <wr4i@mindspring.com> wrote in message
news:anfa4sbmi1@murdoch.acc.Virginia.EDU...
> Hi All,
> Does anyone have a "quick & easy" way to remove the rivets in the Force
type
> beams?
> Thanks!
> wr4i@mindspring.com
>
Drill them out with the correct size drill per the instructions. The drill size is the same diameter as the original holes. Make sure you keep the drill centered.
There is a "portable drill press attachment" available from hardware outlets, like Sears, that will help you stay centered on the element and stabilize the process.
Dave Ornee, KQ9W, Western Springs, IL

138. Antenna Length?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 21:39:27 UTC
From: JF <JF@yahoo.com>
Message-ID: <anidf4$o6c$1@news8.svr.pol.co.uk>
Source record: 133674

Anyone know what the optimum antenna length for FM radio is?

Thanks

John

139. Re: Antenna Length?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 22:01:59 UTC
From: jgboyles@aol.com
Message-ID: <20021003180159.19316.00000052@mb-mg.aol.com>
Source record: 133678

>Anyone know what the optimum antenna length for FM radio is?

John, The length that receives the best signals, if you are trying to receive, and the length that transmits the best signal if you are trying to transmit. If both, another length may work better.
Your question is rather broad, it would help if we knew exactly what you are trying to do. This is an amateur radio newsgroup, so do you wish to construct an antenna for 2m FM? If you are trying to receive commercial FM broadcast signals that is another matter. I would be glad to help in any case, if I can.
73 Gary N4AST

140. Re: Antenna Length?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 22:02:18 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <uppfjeacik7751@corp.supernews.com>
Source record: 133679

About 5 feet if you mean the FM broadcast band for a dipole, or 2 1/2 feet
for a virtical.

"JF" <JF@yahoo.com> wrote in message
news:anidf4$o6c$1@news8.svr.pol.co.uk...
> Anyone know what the optimum antenna length for FM radio is?
>
> Thanks
>
> John
>
>

141. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 22:14:14 UTC
From: "John H. Carver Jr." <jcarver@netusa1.net>
Message-ID: <Gi3n9.66$X6.30178@newsfeed.slurp.net>
Source record: 133680

As a springmaker who has used Berylium Copper I can tell you that we have
been told not to use it anymore due to the fumes that can be released when
it's being stress relieved in an oven. So I would think that any kind of
heating could be potentially dangerous without proper precautions.

--
John H. Carver Jr.
Mid-North Indiana
"Fractenna" <fractenna@aol.com> wrote in message
news:20021003054338.10406.00008633@mb-fx.aol.com...
> >Hi Chip,
> > from an MSDS from ALCO Standard Co. for their product
C17510,
> >Beryllium Copper Alloy 3, "This product presents no health hazards unless
it
> >is welded, burned, ground, or cut." Also, an article cited by the
Beryllium
> >Support Group of the National Jewish Medical Research Center,
"MacCordick,
> >J.M.T. Youinon et al (1995), 'Chronic Beryllium Desease After Exposure to
> >Low-beryllium-content Copper.'" This last details the medical problems
of a
> >young man who worked with 1.8% beryllium copper wire. Don't let anyone
> >tell you beryllium shouldn't be treated with respect.
> >
> >Tom Donaly, KA6RUH
> >
>
> Sounds like gloves and masks to make a solder connection. Very much
appreciate
> the info Tom; probably more of a hazard just working with the solder
itself,
> but certainly worth putting in the trivial amount of extra care needed.
>
> 73,
> Chip N1IR

142. Re: Antenna Length?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 22:16:06 UTC
From: jgboyles@aol.com
Message-ID: <20021003181606.19316.00000053@mb-mg.aol.com>
Source record: 133681

>or 2 1/2 feet
>for a virtical.

Fred, A virtical? Wasn't that some kind of diet drink that was popular in the late 60s, or was that virtrecal?? I have had good results with a 5' folded dipole made from 300 ohm twin lead on the FM broadcast band.
73 Gary N4AST

143. Re: Antenna Length?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 22:22:27 UTC
From: JF <JF@yahoo.com>
Message-ID: <anifvn$mn6$1@newsg2.svr.pol.co.uk>
Source record: 133682

For receiving commercial FM broadcast

thanks

John

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20021003180159.19316.00000052@mb-mg.aol.com...
> >Anyone know what the optimum antenna length for FM radio is?
>
> John, The length that receives the best signals, if you are trying to
receive,
> and the length that transmits the best signal if you are trying to
transmit. If
> both, another length may work better.
> Your question is rather broad, it would help if we knew exactly what you
are
> trying to do. This is an amateur radio newsgroup, so do you wish to
construct
> an antenna for 2m FM? If you are trying to receive commercial FM
broadcast
> signals that is another matter. I would be glad to help in any case, if I
can.
> 73 Gary N4AST

144. Re: Antenna Length?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-03 23:06:37 UTC
From: Bob Miller <bamiller@texas.net>
Message-ID: <XMycPaTsbnyOMkCV7hZAYZ=xq1g5@4ax.com>
Source record: 133683

"JF" <JF@yahoo.com> wrote:

>Anyone know what the optimum antenna length for FM radio is?
>
>Thanks
>
>John
>

The Radio Shack folded dipole for receiving FM broadcasts has a 58" element.
($2.99)

Bob
k5qwg

145. Re: Newbie looking for some How-To Help

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 00:36:18 UTC
From: KC5CQW <kc5cqw@excite.com>
Message-ID: <uppok4lrqmku97@corp.supernews.com>
Source record: 133685

10.5"!!!! no wonder it won't work! I'd try and build a better one. Your wavelingth at 88.5MHz is: 3.3898 meters, so a good choice would be 5.288ft. Useing: Length ft = 468/f MHz. This will yeld a 1/2 wavelingth ant. I like the 1/2 over the 1/4 because it dosen't require a ground plane, however it is much longer. At 100mw you will need as much gain you can get in order to get the coverage you need. I beleave Radio Shack sells a 72" telescopic whip. You could try and replace it and that way if you want to raise your freq. you can shorten the new whip to the desired length. Also, Ramsey Electronics sells a 1watt broad band amp, however, you'll need to replace the whip ant with an RCA female type jack and a RCA male to RCA male coax patch cable. For some really weird reason, Ramsey and TenTec use RCA jacks instead of BNC or some other widely accepted RF connectors... Whether or not you use the amp, i'd still ditch the ripoff of an antenna that came with it.
By the way, it's never too late to earn you Ham ticket!
I'm into low power, (qrp, less then 5w), bicycle moble on HF and satelite work on the VHF/UHF bands. For this kind of stuff antenna is key!!!
I find that there is something for people of all walks of life in ham radio, all ages too...
"Earthling" <anon@anon.net> wrote in message
news:v3nopusb41ob0adip4ohs0vtfd3pvscd7j@4ax.com...
> Hey Guys,
>
> I'm not a Ham Radio operator, but I am an
> Electronic Tech who has had no experience
> in this mysterious world of RF.
>
> This is my situation:
> I recently purchased a tiny 100 mw FM Stereo
> Transmitter from the C.Crane Company (ccrane.com).
> The problem is that it's signal is too weak to
> listen to once I get more than one room away
> from it. I need to be able receive it's signal
> anywhere in the house, basement, garage, and
> anywhere outside within about 50 feet of the house.
> I'm trying to operate it at 88.3 Mhz, which is the
> cleanest spot on the FM dial in my area.
>
> 1st Question
> Assuming that it would have much better range if it
> was driving a decent antenna, what type of antenna
> would you recommend for use with it?
>
> 2nd Question

> I prefer not to open the case up and modify anything
> in the unit as my eyesight isn't good enough these
> days to work with Surface Mount Devices mounted on
> those tiny solder pads. Based on that condition,
> what would would be the best way to couple the
> maximum signal from the built-in 10.5 inch telescoping
> antenna to another much more efficient antenna.
>
> 3rd Question
> Assuming the above will not achieve what my goal is,
> would anyone be willing to share a circuit with me
> for a 100 mw Linear Amplifier that could be easily
> interfaced to a decent antenna. If anyone can help
> in this area, I would still need to know how I could
> couple the signal efficiently from the existing
> 10.5 inch telescoping antenna to the input of this
> Amp.
>
> Any ideas would be greatly appreciated.....
> Thanks a bunch, Guys.
>
> Larry
>

146. Re: How deep do I have to bury my radials??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 00:41:23 UTC
From: KC5CQW <kc5cqw@excite.com>
Message-ID: <uppotm53rlrb7e@corp.supernews.com>
Source record: 133687

Deep enough to not get mowed over or to be exposed with general erosion.
BTW, what kind of telescope do you use? I'd like to get an Orion Astro View
120EQ. But i'm quite low on funding and I'm kind'a new to astronomy. :-)
"StarGazer" <pti@capnet.com> wrote in message
news:3D9C98BC.D456F913@capnet.com...
> Inverted-L for 160 m.
> Is the depth of my insulated radials critical?
>
> I'd rather bury them about 1 or 2 inches.
>
>
>

147. Re: Vertical w/without ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 00:43:54 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210031643.750c60f2@posting.google.com>
Source record: 133686

lombryt@hotmail.com (Thierry) wrote in message
news:<db35a0c.0210021256.548f7687@posting.google.com>...
> Hi,
>
> I'm not decided yet, but I would like to buy a R8 vertical to use it
> for DXing (due to place restriction).
> My question is related to the use of ground and radials. I read many
> posts about this subject but until now none accurately answered to my
> question yet.
>

Thanks for all your suggestions.
FYI my current longwire installation in ON is visible here :
http://www.astrosurf.com/lombry/qsl-longwire.htm
I have also an active magnetic loop in LX but the result as poor due
to a lot of QRM (see also a review of ALA-330 on my site).

I wrote a long answer answering to all your suggestions but I lost
it.. :-((
So I rewrite only the conclusion, a bit longer that the previous one :

According many OM, the wires ((I mean multiband dipole/longwire, G5RV,
etc) have often your preference... and partially for financial
reasons, but not only for this.
For me, theoretically (which is far from the experience in the field)
both vertical and wires seems to be on par. I only suspect wires to be
better performers when they are erected near 1 lamba above the ground
(so at about 14m for the 20m band) where they display much more low
angle lobes, useful for DXing. See test at various height on
http://www.astrosurf.com/lombry/antenna.htm (mid page)

So could you conclude like me the following sentences : if I can erect
a wire antenna far enough above ground, e.g. a 40m G5RV, it will
perform better than any vertical, 10 times more expensive. I coiuld
even fold it if I move to an appartment with limited space.
But if I cannot place my wire so high (and thus if I am limited to
ground level, about 2-3m high for the highest point accessible), it
should be more useful to erect a vertical (or bent it a lot as
suggested a reader to get gain !)... Is this realist ?

At last, the most difficult case, the intermediate one : if I can
acces my chemny (top of roof at about 6m high), what could be the best
solution : to tie a 100' G5RV or to erect from this height a vertical
? Personnally I suspect the vertical to be here also "better" for
DXing as the heigh is not enough yet for the wires (0.5 lambda is a
minimum and 6m is not 7m yet, even if I know that many OM use wires at

such height successfuly, but I am searching for the optimized solution).

Of course if you can give me an appreciation based on your own experience, if you tested wires and vertical at various height, and have made comparisons, that could help ;-)

Thanks for your advices.

Thierry

> ONL5183
> http://www.astrosurf.com/lombry/menu-qsl.htm

148. Re: Icom 706 control program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 00:52:05 UTC
From: KC8SSG <kc8ssg@yahoo.com>
Message-ID: <VC5n9.142$dF1.1516@news>
Source record: 133684

Thanks I'm gonna give it a try!
KC8SSG

"Fred Hambrecht" <w4jle@charter.net> wrote in message
news:upksa9fg5avp7b@corp.supernews.com...
> Stumbled over this site, it has a free program (windows) to control all
> models of the 706.
>
> http://www.honeycom.com/main.htm
>
>

149. Re: Antenna Length?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 01:05:34 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <uppqb44iaaebf0@corp.supernews.com>
Source record: 133688

My tongue got in front of my eye teeth and I couldn't see what I was
typing...

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20021003181606.19316.00000053@mb-mg.aol.com...
> >or 2 1/2 feet
> >for a virtical.
>
> Fred, A virtical? Wasn't that some kind of diet drink that was popular
in the
> late 60s, or was that virtrecal?? I have had good results with a 5'
folded
> dipole made from 300 ohm twin lead on the FM broadcast band.
> 73 Gary N4AST

150. Re: Icom 706 control program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 01:50:52 UTC
From: Leland Cox <lcox107@comcast.net>
Message-ID: <3D9CF3FC.7080706@comcast.net>
Source record: 133689

I downloaded the program and it runs with greek letters on the screen
and labels

Les, AA4F

Fred Hambrecht wrote:

> Stumbled over this site, it has a free program (windows) to control all
> models of the 706.
>
> http://www.honeycom.com/main.htm
>
>
>

151. Re: Icom 706 control program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 03:01:40 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <upq14qlgj74fcc@corp.supernews.com>
Source record: 133690

I did not have that problem.
"Leland Cox" <lcox107@comcast.net> wrote in message
news:3D9CF3FC.7080706@comcast.net...
> I downloaded the program and it runs with greek letters on the screen
> and labels
>
> Les, AA4F >
>
>
> Fred Hambrecht wrote:
>
> > Stumbled over this site, it has a free program (windows) to control all
> > models of the 706.
> >
> > http://www.honeycom.com/main.htm
> >
> >
> >
>

152. AT 450 for kenwood built in tuner FA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 03:21:49 UTC
From: kf4toh@aol.com
Message-ID: <20021003232149.03090.00007924@mb-mp.aol.com>
Source record: 133691

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1385848636

153. Re: W9INN vs. G5RV jr.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 04:04:37 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9D1355.88555388@ieee.org>
Source record: 133693

RC wrote:
> I currently have a G5RV installed at 35'as an inverted-vee; however,
> it has lousy performance on 10 and 15 meters. Has anyone compared the
> W9INN antenna to the G5RV jr(10 -40 meters? Do you think the W9INN
> dipole will outperform the the G5RV?

A G5RV jr. is assumed to be a half-sized G5RV. As such, it is 1.5WL
on 10m fed with 1/2WL of twinlead. It should be resonant somewhere
on 10m and have a nice cloverleaf pattern. Why do you think it has
lousy performance on 10m?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

154. Re: Antenna Length?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 04:07:10 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9D13EE.1E3EF166@ieee.org>
Source record: 133694

JF wrote:
> Anyone know what the optimum antenna length for FM radio is?

For a dipole, about 468/98 ~ 4.8 ft. Or cut it for your favorite
frequency.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

155. Re: Threat to worldwide use of 70cm band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 04:08:01 UTC
From: Dwight Stewart <stewart@sc.rr.com>
Message-ID: <B9C28C53.B87D%stewart@sc.rr.com>
Source record: 133692
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

"Barry OGrady" wrote:
>
> Ham radio is a hobby. (snip)

You forgot the last part of that sentence - ham radio is a hobby that serves a public service. And it is that public service that sets ham radio apart from the other hobby or recreational radio users (CB, GMRS, FRS, or whatever).

And please don't now claim that hams don't do public service, because I know for a fact that large numbers do. In fact, based on my experience, the only hams making these claims are the hams not doing public service themselves (perhaps to justify their own inactivity).

> It can not justify the frequencies it has.

Ham operators don't have to "justify" the frequencies allocated to them. We don't allocate frequencies to ourselves - government agencies do. And it is those agencies that have to justify their decisions to allocate frequencies. And judging from the number of bands and frequencies available to us, they have not had a problem justifying their decisions so far.

> 70 cm should be reallocated to commercial use
> since hams do not deserve it.

A bold statement, Barry, especially when absolutely nothing is offered to back it up. Why don't you explain why we don't "deserve" it? Are you going to claim nobody is using those frequencies? If so, I suggest you listen a little more closely. True, the the band is not being used as much as it could, but the same could have been said about the 6m band a few years ago (a band growing more popular each day).

> They may as well have them since hams do not
> need them.

You consistently refer to hams in the third person. Are you even an ham operator? If not, why is this of interest to you? If you are a ham, why do you have such a negative opinion of your fellow ham operators - and such a destructive attitude towards this radio service? Instead of advocating the removal of our frequencies, why don't you do something more constructive - like actually using the frequencies?

Dwight Stewart (W5NET)

http://www.qsl.net/w5net/

156. Re: Threat to worldwide use of 70cm band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 04:41:44 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <upq70erjns660a@corp.supernews.com>
Source record: 133695
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

Dwight is a troll from the CB world. He enjoys jerking HAM chains when ever
he can.

"Dwight Stewart" <stewart@sc.rr.com> wrote in message
news:B9C28C53.B87D%stewart@sc.rr.com...
> "Barry OGrady" wrote:
> >
> > Ham radio is a hobby. (snip)
>
>
> You forgot the last part of that sentence - ham radio is a hobby that
> serves a public service. And it is that public service that sets ham radio
> apart from the other hobby or recreational radio users (CB, GMRS, FRS, or
> whatever).
>
> And please don't now claim that hams don't do public service, because I
> know for a fact that large numbers do. In fact, based on my experience,
the
> only hams making these claims are the hams not doing public service
> themselves (perhaps to justify their own inactivity).
>
>
> > It can not justify the frequencies it has.
>
>
> Ham operators don't have to "justify" the frequencies allocated to them.
> We don't allocate frequencies to ourselves - government agencies do. And
it
> is those agencies that have to justify their decisions to allocate
> frequencies. And judging from the number of bands and frequencies
available
> to us, they have not had a problem justifying their decisions so far.
>
>
> > 70 cm should be reallocated to commercial use
> > since hams do not deserve it.
>
>
> A bold statement, Barry, especially when absolutely nothing is offered
to
> back it up. Why don't you explain why we don't "deserve" it? Are you going
> to claim nobody is using those frequencies? If so, I suggest you listen a
> little more closely. True, the the band is not being used as much as it

> could, but the same could have been said about the 6m band a few years ago
> (a band growing more popular each day).
>
>
> > They may as well have them since hams do not
> > need them.
>
>
> You consistently refer to hams in the third person. Are you even an ham
> operator? If not, why is this of interest to you? If you are a ham, why do
> you have such a negative opinion of your fellow ham operators - and such a
> destructive attitude towards this radio service? Instead of advocating the
> removal of our frequencies, why don't you do something more constructive -
> like actually using the frequencies?
>
>
> Dwight Stewart (W5NET)
>
> http://www.qsl.net/w5net/
>

157. Re: Threat to worldwide use of 70cm band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 07:19:31 UTC
From: Dwight Stewart <stewart@sc.rr.com>
Message-ID: <B9C2B93A.B8A8%stewart@sc.rr.com>
Source record: 133696
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

"Fred Hambrecht" wrote:
>
> Dwight is a troll from the CB world. He enjoys
> jerking HAM chains when ever he can.

Well, since I haven't trolled from the CB world, or posted anything that
might jerk any ham's chain recently, I assume you must be talking about
Barry instead of me above.

Dwight Stewart (W5NET)

http://www.qsl.net/w5net/

158. Re: W9INN vs. G5RV jr.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 08:23:34 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <iuiqpu88sbaob9gnta9f8hflt30ug7o3l9@4ax.com>
Source record: 133697

On Thu, 03 Oct 2002 23:04:37 -0500, CAM <Cecil.A.Moore@ieee.org>
wrote:

|RC wrote:
|> I currently have a G5RV installed at 35'as an inverted-vee; however,
|> it has lousy performance on 10 and 15 meters. Has anyone compared the
|> W9INN antenna to the G5RV jr(10 -40 meters? Do you think the W9INN
|> dipole will outperform the the G5RV?
|
|A G5RV jr. is assumed to be a half-sized G5RV. As such, it is 1.5WL
|on 10m fed with 1/2WL of twinlead. It should be resonant somewhere
|on 10m and have a nice cloverleaf pattern. Why do you think it has
|lousy performance on 10m?

Belrose has written about the problems of using an extended length
dipole in an "inverted-vee" configuration.

See: "On Center-Fed Multiband Dipoles", QST, March 1994, pp 34-36.

The "nice cloverleaf pattern" occurs with a horizontal dipole. The
inverted-vee "G5RV" moves the high current regions away from center
and then places them closer to ground. You're better off with a
half-wave dipole.

159. Re: Ideas on copper wire stretching and sagging

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 08:30:17 UTC
From: mike c <md_removeunderscores_cola@evenlink.com>
Message-ID: <MPG.18071ba93a43e6c09896b8@news.evenlink.com>
Source record: 133698

> > wow, 2m. i'm curious. what's the diameter of this rope that raises
> > what weight that high in approx what mph wind?
>
> I hope you are reading 2m to mean 2 metres, not 2 miles! The tensioning
> weight is only a 454g sinker (that was a 1lb snapper lead). The sea
> weather forecast that day was 50 knots (about 90Km per hour). Official
> weather observations were gusts to 120Km/hour. I have no idea what it
> actually was around the antenna... but it was pretty strong... however
> no building damage in the area. The tensioning system is really to let
> the tree move.

yeah, 2m. that's not surprising for a 1 lb weight. i was thinking
heavy counter wewight.

> Well, thing I find convenient for creating lash ups for prototyping /
> temporary work is make a bight near the end of the annealled wire and
> make a sheet bend through the bight with the rope. Holds quite securely.
> (No egg insulators or like used of course... well for the middle perhaps
> but not at the ends.)

sheet bend. that must be the one i forgot the name of. for joining
disimilar ropes. similar to a square knot but the end of the
rope/wire doesn't pass back through the bight but just weaves under
it's own input to the bight.
>
> >
> > --
> > Best Regards,
> > Mike Colasono
>
> Cheers... Owen
>

--
Best Regards,
Mike Colasono

160. FS: Coils

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 09:12:16 UTC
From: Sidevalve <Sabbatai_zvi@hotmail.com>
Message-ID: <lqmqpu4nvb9ulcmql129ud209aml28hukf@4ax.com>
Source record: 133699

Maybe someone can use some of these as loading coils
or in a homebrew tuner:

FOR SALE:

Two James Millen adjustable coils on ceramic forms.
Type 69045 Dimensions 2-1/8" long X 1/2" diameter.
Single hole mounting, solder terminals.
QTY 2 available for $4.00 each
http://home.cfl.rr.com/happysurfer/imag/two_james.jpg

3 turn link with two tube plate caps attached.
Ideal for homebrewing.
Bakelite swinging arm for coupler. Pivot goes to ceramic "BVL" Jack
bar
with 4
metal jack sockets, and pivot brackets that are wired to two large
plate
caps made
for tubes with 1/2" diameter plate cap. Part of a BVL tank system.
Has enameled copper wire and some very useful hardware attached.
Link coil dimensions 2-1/2" diameter. Enamelled 18 gauge copper wire.
QTY 1 only at $5.00
http://home.cfl.rr.com/happysurfer/imag/3turn_link.jpg

6 turn air wound coil - airdux style. Dimensions 3/4" long X
2" diameter. Inductance 2.2 uH.
One only - available for $3.00
http://home.cfl.rr.com/happysurfer/imag/6turn_air_wound_coil.jpg

18 turn coil. Airdux style. 1.75" long and 2" diameter. 10 TPI.
12.2 uH. Will sell for $5.00
Similar to above coil only longer. Picture available.

30 turn air core coil. Dimensions are 4" long and 2" in diameter.
Inductance is 18 uH. QTY 1 only at $6.00
http://home.cfl.rr.com/happysurfer/imag/30turn_air_core.jpg

48 turn air core coil - airdux style. Has Dimensions 7" long X 2"
diameter.
Inductance is 29 uH. QTY 1 only available for $10.00
http://home.cfl.rr.com/happysurfer/imag/48_turn_air_core.jpg

91 turn air core coil - Measures 6.5" in length and 1.5" diameter. 14
turns per inch.
65 uH inductance. Excellent with plexiglas support and four mounting
holes. QTY 1 only for $12.00

http://home.cfl.rr.com/happysurfer/imag/91turn_air_core_coil.jpg

Ceramic coil, split off-center. Has total of 20 turns with a
tap at 13 turns.
On white ceramic form - former dimensions 3" long X 1.5" diameter.
Coil length is 2". Inductance is 8.56 uH.
Qty 1 only for $3.00
http://home.cfl.rr.com/happysurfer/imag/ceramic_coil_split.jpg

Ceramic coil with approx 110 turns of green cotton covered wire.
White ceramic form has dimensions - 2" long X 1.5" diameter.
Inductance is around 330 uH. Suitable for AM band or LF applications.
Has screw terminals and solder lugs for connection.
New old stock. QTY 1 only for $4.00
http://home.cfl.rr.com/happysurfer/imag/ceramic_coil_with.jpg

Coil form, ribbed white ceramic. Dimensions are 5" long and
2" diameter.
Ribbed style with slots for wire. Designed to hold 26 turns and
would have about 20 uH. Has 4 mounting holes on each end.
Has been repaired; looks fine, hence low price.
Qty 1 only at $1.00
http://home.cfl.rr.com/happysurfer/imag/coil_form_ribbed.jpg

Coil form - odd design ribbed ceramic former with 6 terminals on
base and three nice threaded holes for mounting screws.
Dimensions are 2-1/2" tall X 1-1/8" diameter.
Inner coupling coil is 7/8" diameter with tapped coil of enamelled
wire brought out to three terminals.
Qty 1 available for $3.00
http://home.cfl.rr.com/happysurfer/imag/coil_form_odd.jpg

Multi-tapped coil. Unique design attached to a PC board with a tap
for every turn.
Airdux type air core form. Coil has a total of 32 turns and dimensions
of
4" long X
1.5" diameter. Approx 12.5 uH.
QTY 1 available for $6.00
http://home.cfl.rr.com/happysurfer/imag/Multi-tapped_coil.jpg

14 MHz plug-in tank coil with link coupling. 20m coil on 5-pin base.
Marked as model 2420. Medium size. Airdux style coil has 11 turns
and the link outside it has 3 turns. QTY 1 only for $5.00
http://home.cfl.rr.com/happysurfer/imag/plug_in_coil_with_link.jpg

More soon.

Shipping additional

- - -
Commyanism is the woyste thing I evah hoyde - Robin Williams

161. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 12:09:50 UTC
From: Radioguy <nospam@nospam.com>
Message-ID: <ank0fk$l06$1@nntp9.atl.mindspring.net>
Source record: 133700

Fractenna <fractenna@aol.com> wrote in message
news:20021003071816.10377.00008230@mb-fx.aol.com...
> One of our august NG netizens sent along the following URL off-line. I
think
> its worth sharing:
>
> http://tis.eh.doe.gov/be/webdoc1.html-ssi
>
> 'Be' is some tough stuff. Watch out for those emeralds!
>
> Hmmm.. doesn't talcum powder contain 'Be'? Probably more risk from getting
a
> haircut than cutting BeCU alloy wire.
>
> I'm joking a bit;caution seems to be warranted at least.
>
> 73,
> Chip N1IR

Interesting, Re: http://tis.eh.doe.gov/be/webdoc1.html-ssi

snip

"Be alloys are used for:

Springs, switches, relays, and connectors in automobiles, computers, radar
and telecommunications equipment, and other instruments
High-strength nonsparking tools including some tools sold for use in the
home
Molds or casts to make metal, glass, and plastic items
Sports equipment such as golf clubs and bicycle frames
Dental bridges and related applications"

end snip

Dental bridges???

162. Re: How deep do I have to bury my radials??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 12:50:23 UTC
From: Murray Neece <radioranch@cableone.net>
Message-ID: <3D9D8E8F.1139C7EC@cableone.net>
Source record: 133701
Body handling: Binary attachment payload not displayed: radioranch.vcf

Not critical...top of ground ok 2" ok...73 Murray K5MDM

StarGazer wrote:

> Inverted-L for 160 m.
> Is the depth of my insulated radials critical?
>
> I'd rather bury them about 1 or 2 inches.

[One or more binary attachments are retained only in the source text.]

163. Re: W9INN vs. G5RV jr.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 13:09:04 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9D92F0.A61BF154@ieee.org>
Source record: 133702

Wes Stewart wrote:
>
> CAM <Cecil.A.Moore@ieee.org> wrote:
>
> |RC wrote:
> |> I currently have a G5RV installed at 35'as an inverted-vee; however,
> |> it has lousy performance on 10 and 15 meters. Has anyone compared the
> |> W9INN antenna to the G5RV jr(10 -40 meters? Do you think the W9INN
> |> dipole will outperform the the G5RV?
> |
> |A G5RV jr. is assumed to be a half-sized G5RV. As such, it is 1.5WL
> |on 10m fed with 1/2WL of twinlead. It should be resonant somewhere
> |on 10m and have a nice cloverleaf pattern. Why do you think it has
> |lousy performance on 10m?
>
> Belrose has written about the problems of using an extended length
> dipole in an "inverted-vee" configuration.

Sorry, I missed the "inverted-vee" part. For good performance on the
higher bands, a G5RV should NOT be used in an inverted-V configuration.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

164. Re: Will a Rhombic antenna work better than an R5?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 13:26:28 UTC
From: Fudge <fudge@mv.igs.net>
Message-ID: <3d9da0df_3@corp-news.newsgroups.com>
Source record: 133704

Before you even consider a rhombic antenna, get out a compass and a tape measure. This is a big mother of an antenna. I was bragging to my radio buddies about having a big erection, A rhombic, and guess what, NOT ENOUGH SPACE. I have heard them on 20 M from ZS, VK and ZL and they sound fabulous. I have a 50 acre farm in the Canadian bush so if you are real estate challenged, forget it!!!!

John
VA3JQ

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:8731-3D9AFBF3-27@storefull-2311.public.lawson.webtv.net...
> Mike, W5WQN wrote:
> 'Of it all he noted that despite the magnificent gain on transmit and
> receive, you still can`t work `em if you can`t hear `em."
>
> Magnificent gain and directivity are opposite sides of the same coin.
> Their values increase and decrease together.
>
> If you could not "hear `em" using a rhombic, most of the world`s
> commercial receiving stations would be deaf because they use rhombics.
>
> Signal versus noise determines reception. Directivity of the rhombic is
> by far the best where it is aimed. That`s designed to be the direction
> of the desired signal. The beamwidth of a practical rhombic may be 15
> degrees, the gain may be 15 dbd, and the strongest side-lobe may be 10
> db down from the main-lobe.
>
> The main-lobe signal to noise is no worse than for a non-directional
> antenna. That is, when the signal and noise directions coincide. But,
> noise from directions outside the main lobe is reduced by a minimum of
> 10 db.
>
> The rhombic may mistakenly be reputed as a static grabber because it is
> a broadband antenna. Lightning produces "static" across a wide spectrum.
> But, it is the job of a receiver to provide frequency selectivity. In
> commercial stations the receivers are designed with the necessary
> preselection.
>
> Best regards, Richard Harrison, KB5WZI
>

165. Re: W9INN vs. G5RV jr.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 13:49:27 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ank697crt1@paris.btinternet.com>
Source record: 133703

For good performance on the
> higher bands, a G5RV should NOT be used in an inverted-V configuration.
> --
> cheers, CAM
==========
Why not ? It's no different from any other inverted-V dipole

Please change your name back to Cecil. "Dear CAM" doesn't sound right.

Reg.

166. 6 meter hamstick mobile?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 14:24:04 UTC
From: Andy KC2SSB <vhfradiobuff@yahoo.com>
Message-ID: <329rpuch18kp37lk2895t1h2percd6rpl0@4ax.com>
Source record: 133705

I am currently looking for an alternative to the 1/4 wave magmount I'm using on my car for 6 meters. I've looked at the 6m hamstick. Would this be a good antenna? I'm running 100w FM only, no SSB stuff.

=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-

73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com

167. Re: Boycott The Body Shop !!! 8624

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 14:26:32 UTC
From: jotis <charlesriver@peoplepc.com>
Message-ID: <upr990g4skabaf@corp.supernews.com>
Source record: 133706
Cross-posted to: rec.outdoors.fishing.fly.tying,rec.radio.amateur.antenna,rec.music.artists.springsteen,uk.rec.crafts.sewing

Well, Alec, we may not be perfect, but at least we have NO "official secrets act", nor do we prohibit public comment regarding current litigation as you do in the UK - and nobody is faulting you for that. So don't make yourself into the pot calling the kettle black.

Besides, saying the obvious - that you are for us or against us - has nothing to do with free speech.

-Joseph

> America - "the home of the brave", I don't doubt it, but "the land of the
> free"? come on, you must be joking.
>
> Alec Wood M1BNK
> Teesside UK

168. Re: Newbie looking for some How-To Help

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 14:54:09 UTC
From: richardharrison@webtv.net
Message-ID: <19636-3D9DAB91-49@storefull-2311.public.lawson.webtv.net>
Source record: 133707

Earthling wrote:
"What type of antenna---?"

A longer antenna for your FM sender is likely illegal.

Free-space wavelength is 300 / MHz.

300 / 88.5 = 3.39 meters or 11.12 ft.

A 1/2-wave antenna for 88.5 MHz would be about half of of 11.2 ft, or about 5.56 ft. It is shortened by "end effect" to about 95% or 5.28 feet.

It`s better too long than too short for most antennas because the radiation resistance change is slower above first resonant length than below the length of first resonance. Above first resonance length, the radiation resistance oscllates around the free-space first resonance radiation resistance value.

As already noted, Radio Shack sells a cheap ready-made 300-ohm folded dipole with some 300-ohm twinlead attached. That is hard to beat. The dipole can be placed for vertical or horizontal polarization or anything in-between. The exact length of antenna or leadin is unimportant.

A legal wireless system may be made completely from 300-ohm twinlead connected to the sender output. Run the twinlead through every room and outdoors listening point. At the far end of the twinlead run terminate the twinlead with a 330-ohm resistor. Two-way radio uses this method for communications in tunnels etc.

Earthling won`t need to modify anything inside his sender to attach twinlead using crocodile/gator clips to his telescoping antenna and its chassis.

Contactless coupling to a vertical whip is possible using a toroid core suitable for 88 Mhz in this case. The core encircles the base of the radiator. It works just like a clamp-on ammeter. A one-turn coil is made by the antenna circuit. Additional turns are wound onto the core to match the 300-ohm feedline. Grounded radio towers have been driven from transmitters using toroids around the tower. This is costly, so it doesnt find much commercial use.

Best regards, Richard Harrison, KB5WZI

169. Re: Newbie looking for some How-To Help

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 15:08:20 UTC
From: richardharrison@webtv.net
Message-ID: <19636-3D9DAEE4-52@storefull-2311.public.lawson.webtv.net>
Source record: 133708

KC5CQW wrote:
"For some really weird reason, Ramsey and Ten Tec use RCA jacks instead
of BNC or some other widely accepted RF connectors."

Sure, same reason Motorola uses RCA connectors for r-f connections
inside its 2-way radios, cost and convenience.

Best regards, Richard Harrison, KB5WZI

170. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 16:39:03 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <Hujn9.6594$s5.199871@twister.southeast.rr.com>
Source record: 133710

I feel like an imbecile asking this question, especially after having been in and out of Ham Radio for years, but why is it a 450 or 600 ohm transmission line 'conveys' energy better and more efficiently than a line with less resistance?

Alan (shying away from shame now that he reveals his ignorance)

--
Windsurfing Club: http://www.ibscc.org
Homepage: http://pw1.netcom.com/~alannc44/qsl.htm

171. Re: Horizontal Loops for HF - anyone using?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 16:39:48 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3D9DC43B.757346B2@bellatlantic.net>
Source record: 133709

Sidevalve wrote:
>
> Hi guys - I am getting ready to build a loop.
>
> Planing to feed it with 450 ohm line to an autotuner on the ground
> and run all bands 160-10m.
>
> My question is this:
>
> Will 260 feet be an ideal length? It's going to be about 25-35 feet
> high supported by trees.
>
> It will probably not be exactly the same hieght all around. It will
> definately not be square but some sort of odd shaped and
> 4 or 5 sided affair.
>
> Does anyone else have experience with such real world loops
> that can comment and/or give me any tips before I get started?
>
> Thanks - AF4K

Mine is 272' feet and works fine on all bands from 80 up to 10.
For 160, I have to short the ends of the antenna feed line together
at the shack, and feed it as a random wire. I use a manual tuner
on 10 and 15 & 160; the 746 autotuner works on the other bands.
I believe - but do not know - that you can adjust the length
of the ladder line such that a good autotuner would handle
80 through 10. Don't know what the autotuner would do with
the thing fed as a random on 160.

172. Program TOPHAT2

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 16:52:45 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ankh0s$t5h$1@venus.btinternet.com>
Source record: 133711

Program TOPHAT2.exe is an improved version of TopHat1.

Part of introductory notes -

"PERFORMANCE OF SHORT, VERTICAL, TOP-CAPACITANCE-LOADED ANTENNAS

Capacitance loading of a short vertical antenna can improve radiating efficiency better than inductance loading. Best possible improvement for a 2/3-height loading coil relative to base loading is typically 3 dB. But a large top hat can improve performance by more than 6 dB. In this program the hat is a number of horizontal radial wires or rods optionally surrounded by a wire circle.

Top-capacitance loading improves radiating efficiency in two ways -

(1) A more uniform distribution of antenna current versus height results in an increase in radiation resistance for no loss in the top-hat. Whereas the high loss resistance of a raised coil can outweigh the benefit of increased radiation resistance.

(2) A tuning coil is always necessary. But its inductance is less when a capacitance hat is fitted and if overall coil dimensions are unchanged then loss in the coil is much smaller. A more uniform current due to a top hat lessens the advantage of fitting the coil part-way up the antenna. The coil can then be combined with the Z-match network located between antenna and the transmitter as in this program."

Download in a few seconds program TOPHAT2 from website below. Run immediately.

==========
Regards from Reg G4FGQ
Free Radio Design Software
Go to http://www.g4fgq.com
==========

173. Fritzel FB53 information please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 17:08:19 UTC
From: ajhuddle@inet.uni2.dk
Message-ID: <4jirpuodj1ac97gqn14tacr2a1sul6a719@4ax.com>
Source record: 133712

Hello!

I am rebuilding my old Fritzel FB53 (5 band tribander) and I will be cleaning up all the traps so I wondered whether anyone has any information about this antenna. I have the dimensions but I wondered whether the traps should be tuned to any particular frequncies to achieve maximum performance.

Any information would be warmly appreciated.

Kindest regards

Andrew G3WZZ / OZ1XJ

174. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 17:14:24 UTC
From: Bert Craig <wa2si@arrl.netNOSPAM>
Message-ID: <V2kn9.8405$GF5.207759@news4.srv.hcvlny.cv.net>
Source record: 133716

"Alan" <alannc44@{nospam}ix.netcom.com> wrote in message
news:Hujn9.6594$s5.199871@twister.southeast.rr.com...
> I feel like an imbecile asking this question, especially after having been
> in and out of Ham Radio for years, but why is it a 450 or 600 ohm
> transmission line 'conveys' energy better and more efficiently than a line
> with less resistance?
>
> Alan (shying away from shame now that he reveals his ignorance)
>
> --
> Windsurfing Club: http://www.ibscc.org
> Homepage: http://pw1.netcom.com/~alannc44/qsl.htm

Nonsense, asking questions is nothing to feel ashamed of. If that were true,
I'd be inducted into the 'Hall of Shame.' <ggg> I believe the correct answer
(Please correct me if I err, group.) is that the 450 Ohms & 600 Ohms are
measurements of impedance rather tthan resistance. It's important to match
the impedance to allow the full transfer of energy wrt an antenna system.
Hope that helped some. Take care now. :-)

--
73 de Bert
WA2SI

175. Re: Want a Good Tuner??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 17:14:44 UTC
From: N2EY@AOL.COM
Message-ID: <c2356669.0210040914.4d8567a1@posting.google.com>
Source record: 133713

CAM <Cecil.A.Moore@ieee.org> wrote in message news:<3D86A118.1BB0AB4C@ieee.org>...
> StarGazer wrote:
> > Why is 5/16 wavelength such a magically length?
>
> Not magical, just convenient. A 1/4WL monopole has a feedpoint
> impedance of about 35+j0 ohms. A 5/16WL monopole has a feedpoint
> impedance of about 50+j80 ohms. For a perfect 50 ohm match, use
> a series cap with a reactance of -j80 ohms. But 35 ohms is an
> acceptable feedpoint impedance without an antenna tuner.
>
> > What is a doorknob cap and where do I get one?
>
> Doorknob caps are good for high power. But a simple air-variable
> cap may be more convenient because it is adjustable. Mica caps
> also work for relatively low power.

The main problem in the above application is the ability of the capacitor to handle the RF current. True transmitting caps are rated in RF amps at a specific frequency. Air and vacuum caps are the least trouble because they can handle large RF currents without heating.

Lessee, if you want -j80 ohms at 1.9 MHz, you'll need - umm - 1,047 pF. A triple-gang BC variable is just enough.

73 de Jim, N2EY

176. TOPHAT2 source code also available

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 17:15:55 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ankica$n41$1@helle.btinternet.com>
Source record: 133714

Source code available.

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:ankh0s$t5h$1@venus.btinternet.com...
> Program TOPHAT2.exe is an improved version of TopHat1.
>
> Part of introductory notes -
>
> "PERFORMANCE OF SHORT, VERTICAL, TOP-CAPACITANCE-LOADED ANTENNAS
>
> Capacitance loading of a short vertical antenna can improve radiating
> efficiency better than inductance loading. Best possible improvement for a
> 2/3-height loading coil relative to base loading is typically 3 dB. But a
> large top hat can improve performance by more than 6 dB. In this program
> the hat is a number of horizontal radial wires or rods optionally
surrounded
> by a wire circle.
>
> Top-capacitance loading improves radiating efficiency in two ways -
>
> (1) A more uniform distribution of antenna current versus height
results
> in an increase in radiation resistance for no loss in the top-hat.
Whereas
> the high loss resistance of a raised coil can outweigh the benefit of
> increased radiation resistance.
>
> (2) A tuning coil is always necessary. But its inductance is less when
a
> capacitance hat is fitted and if overall coil dimensions are unchanged
then
> loss in the coil is much smaller. A more uniform current due to a top hat
> lessens the advantage of fitting the coil part-way up the antenna. The
coil
> can then be combined with the Z-match network located between antenna and
> the transmitter as in this program."
>
> Download in a few seconds program TOPHAT2 from website below. Run
> immediately.
> ---
> ========================
> Regards from Reg G4FGQ
> Free Radio Design Software
> Go to http://www.g4fgq.com

> ==========
>
>

177. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 17:17:37 UTC
From: "Stephen C. Robbins" <srobbinsNoSPaMDUDES@netacc.net>
Message-ID: <3d9dcd1d$1@news.netacc.net>
Source record: 133715

"Radioguy" <nospam@nospam.com> wrote in message
news:ank0fk$l06$1@nntp9.atl.mindspring.net...
>
> Dental bridges???
>

Sure, the Berylium Copper alloy can be cast to very exact tolerances and is very stiff. It will not deform from the forces of chewing a steak or biting the dog... what have you.

Berylium particles have only been problematic when inhaled into the lungs. No particles can be extracted from the alloy in normal day to day use/wear and tear. That is why it is in every home practically in several applications and not causing any problems.

Steve

178. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 17:41:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uprklrouossl91@corp.supernews.com>
Source record: 133717

Although the units of the line's impedance are ohms, it doesn't represent resistance. For a completely lossless line, the characteristic impedance is the square root of the ratio of inductance per unit length to capacitance per unit length, which has the units ohms. It's also the ratio of voltage to current anywhere along a line that's terminated with its characteristic impedance. This ratio also has ohms as its unit, just like the ratio of voltage to current in a circuit. But it doesn't represent loss resistance -- a completely lossless line has a characteristic impedance that's very nearly the same as a pretty lossy line.

At UHF and below, the primary source of loss in dry, decent quality transmission line is conductor resistance. Because the current flows in a very shallow layer along the surface(*) of the wire at radio frequencies, the resistance is a lot higher than it would be for DC. The layer gets shallower as the frequency increases, resulting in increasing loss at higher frequencies. The loss in any length of line, in watts, is I^2*R, where R is the RF resistance per unit length of the conductors. For a given power, the current is less on a high impedance line, resulting in lower loss.

The presence of a typical amount loss doesn't change a transmission line's impedance much, so the small change is usually ignored.

You'll find a lot more about transmission lines in the ARRL Antenna Book or ARRL Handbook.

Roy Lewallen, W7EL

(*) The current density actually decreases exponentially inward from the surface, and drops to a very low value within a small distance. The distance from the surface where it reaches about 37% (1/e) of the surface value is called the skin depth.

Alan wrote:
> I feel like an imbecile asking this question, especially after having been
> in and out of Ham Radio for years, but why is it a 450 or 600 ohm
> transmission line 'conveys' energy better and more efficiently than a line
> with less resistance?
>
> Alan (shying away from shame now that he reveals his ignorance)
>
> --
> Windsurfing Club: http://www.ibscc.org
> Homepage: http://pw1.netcom.com/~alannc44/qsl.htm
>
>

>

179. Conical Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 17:52:18 UTC
From: WA6LZH <tangeram@lucent.com>
Message-ID: <3D9DD552.40501@lucent.com>
Source record: 133718

I've been going through my collection of old CQ Magazines, yah know when Wayne was there. I ran across a curious type of a dipole called a conical. The author claimed to increase bandwidth as well as radiation resistance close to the ground by parrelleling two folded dipoles Maypole fashion with each dipole leg 90 deg to the other. He claimed an improvement of at least an S unit above a dipole at the same height (28 feet) as well as increased bandwidth due to the staggered resonances of the two dipoles i.e. one tuned to the high and the other to the low end of the band. Does it sound reasonable that this antenna should have any greater efficiency than an ordinary dipole?

Tony

180. FA: Motorola Spectra Hand Held Control Head

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 17:58:02 UTC
From: Dave <jeronamo@REMOVE.aol.com>
Message-ID: <KEkn9.88$th2.14973222@newssvr21.news.prodigy.com>
Source record: 133619

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1386107319

181. Re: Boycott The Body Shop !!! 8624

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 18:06:17 UTC
From: Ernie Logman <turnpike_checkerNOSPAM@yahooREMOVE.com>
Message-ID: <tMkn9.4289$G%1.2527@tornadotest1.news.pas.earthlink.net>
Source record: 133620
Cross-posted to: rec.outdoors.fishing.fly.tying,rec.radio.amateur.antenna,rec.music.artists.springsteen,uk.rec.crafts.sewing

alec - go kiss the Queen's ass

"jotis" <charlesriver@peoplepc.com> wrote in message
news:upr990g4skabaf@corp.supernews.com...
> Well, Alec, we may not be perfect, but at least we have NO "official
secrets
> act", nor do we prohibit public comment regarding current litigation as
you
> do in the UK - and nobody is faulting you for that. So don't make yourself
> into the pot calling the kettle black.
>
> Besides, saying the obvious - that you are for us or against us - has
> nothing to do with free speech.
>
> -Joseph
>
>
>
>
>
>
>
> > America - "the home of the brave", I don't doubt it, but "the land of
the
> > free"? come on, you must be joking.
> >
> > Alec Wood M1BNK
> > Teesside UK
>
>
>

182. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 18:12:00 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <lrlrpu8u9l5dksqohk2io7p66r4s5ocpdt@4ax.com>
Source record: 133621

On Fri, 4 Oct 2002 13:14:24 -0400, "Bert Craig" <wa2si@arrl.netNOSPAM>
wrote:

>"Alan" <alannc44@{nospam}ix.netcom.com> wrote in message
>news:Hujn9.6594$s5.199871@twister.southeast.rr.com...
>> I feel like an imbecile asking this question, especially after having been
>> in and out of Ham Radio for years, but why is it a 450 or 600 ohm
>> transmission line 'conveys' energy better and more efficiently than a line
>> with less resistance?
>>
>> Alan (shying away from shame now that he reveals his ignorance)
>>
>> --
>> Windsurfing Club: http://www.ibscc.org
>> Homepage: http://pw1.netcom.com/~alannc44/qsl.htm
>
>Nonsense, asking questions is nothing to feel ashamed of. If that were true,
>I'd be inducted into the 'Hall of Shame.' <ggg> I believe the correct answer
>(Please correct me if I err, group.) is that the 450 Ohms & 600 Ohms are
>measurements of impedance rather tthan resistance. It's important to match
>the impedance to allow the full transfer of energy wrt an antenna system.
>Hope that helped some. Take care now. :-)

Hi Bert,

The 450 or 600 Ohm specification being for Impedance fails to reveal
that none of that Impedance is reactance - the more important
consideration. That same 450 or 600 Ohms is in relation to the
intended load (even if seen through a transformer to some other value)
which must be entirely resistive (and thus maintaining a match without
reactance).

Another perspective is to consider the Hi Tension lines crossing the
country. They run at elevated potentials (the reason to use
300/450/600 Ohm lines) to reduce current demand for the same power
delivered. Thus the same copper loses less power in passing the low
current high voltage to a distant load.

Now, as it is a rare occasion when that load is actually that high in
Impedance (usually found in very, very, large antennas like a
rhombic), the application of these transmission lines often finds them
terminated in much lower load Impedances. In this regard, the SWR is
usually astronomical (and this is anticipated, not just a whim of
design); but the high-Z of the line copes by the same methodology (low
current high volts) which results in lower loss for the inescapable
mismatch supported on the line before it hits your tuner.

73's
Richard Clark, KB7QHC

183. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 18:15:42 UTC
From: JustThinkin <look@life.org>
Message-ID: <3d9ddadd$0$1434$272ea4a1@news.execpc.com>
Source record: 133623

I want to thank everyone that responded to my inquiry.

I had thought that perhaps the Johnson Matchbox was
originally designed for use with 600ohm ladder-line hence
my inquiry.

I will go with 450 line since it will be easier to route.
Getting it wet is not an issue as it will be run through the
attic and not exposed to the elements.

I had heard that the Matchbox could be modified for use
on 160m, anyone know how or have a link?

Also heard the Matchbox could tune the WARC bands
by simply switching to the nearest band-switch position, true?
Since I don't have an antenna as of yet I havn't been able to try it myself.

Indeed, the WAA award comment was funny.

Thanks again.

184. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 18:18:35 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ankm1q$m14$1@knossos.btinternet.com>
Source record: 133622

There are two line characteristics which matter most. Characteristic impedance Zo and wire resistance R.

A high Zo line alows the SAME power to flow along the line at a HIGHER voltage and at a lower current.

Watts = Amps times Volts.

If it flows at a lower current for the same wire resistance then it suffers less loss.

****

If a 600-ohm line and a 50-ohm line both have the same wire resistance, then the 50-ohm line will have X times more loss (in decibels) than the 600-ohm line.

****

Attenuation of any sort of line is 4.34 * R / Zo decibels per 100 feet,

where R is the HF wire resistance per 100 feet.

****

X = 3.46

(Come on now, own up - how many of you thought the loss would be 12 times higher?)

--
==========
Regards from Reg G4FGQ
Free Radio Design Software
Go to http://www.g4fgq.com
==========
"Alan" <alannc44@{nospam}ix.netcom.com> wrote in message
news:Hujn9.6594$s5.199871@twister.southeast.rr.com...
> I feel like an imbecile asking this question, especially after having been
> in and out of Ham Radio for years, but why is it a 450 or 600 ohm
> transmission line 'conveys' energy better and more efficiently than a line
> with less resistance?
>
> Alan (shying away from shame now that he reveals his ignorance)
>
> --
> Windsurfing Club: http://www.ibscc.org
> Homepage: http://pw1.netcom.com/~alannc44/qsl.htm

>
>
>

185. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 18:22:15 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <anmrpu0rmdjkk7re1lcv9t4i61mpkeee2t@4ax.com>
Source record: 133624

On Fri, 4 Oct 2002 13:17:37 -0400, "Stephen C. Robbins"
<srobbinsNoSPaMDUDES@netacc.net> wrote:

>
>"Radioguy" <nospam@nospam.com> wrote in message
>news:ank0fk$l06$1@nntp9.atl.mindspring.net...
>>
>> Dental bridges???
>>
>
>Sure, the Berylium Copper alloy can be cast to very exact tolerances and is
>very stiff. It will not deform from the forces of chewing a steak or biting
>the dog... what have you.
>
>Berylium particles have only been problematic when inhaled into the lungs.
>No particles can be extracted from the alloy in normal day to day use/wear
>and tear. That is why it is in every home practically in several
>applications and not causing any problems.
>
>Steve
>
>
Hi Steve,

They used to say the mercury in dental work was OK too because of the amalgam, "no problems" - science and dentistry now tends away from amalgam because of the mercury leaching out. My dentist's work has been mercury free for at least 15 years. It is never an issue of any particular single exposure, rather the problem is in constant "low level" exposure. Such toxins are cumulative.

73's
Richard Clark, KB7QHC

186. Re: Threat to worldwide use of 70cm band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 18:30:05 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <v6nrpuk1sfhd6c467dmvualdga98e47ohd@4ax.com>
Source record: 133625
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

On Fri, 04 Oct 2002 04:08:01 GMT, Dwight Stewart <stewart@sc.rr.com>
wrote:

>> They may as well have them since hams do not
>> need them.
>
>
> You consistently refer to hams in the third person. Are you even an ham
>operator?

Hi Dwight,

Such is the personality type that is so willing to give away our
rights in the name of freedom, security, and the american way. Given
any success in that agenda, the Taliban has already won the war even
if they lie buried in their caves moldering away.

73's
Richard Clark, KB7QHC and veteran of less popular wars

187. Re: Conical Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 18:42:17 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <b1orpu0ik27r2hnr7p2j05oq87smv0vhb8@4ax.com>
Source record: 133626

On Fri, 04 Oct 2002 10:52:18 -0700, WA6LZH <tangeram@lucent.com>
wrote:

>I've been going through my collection of old CQ Magazines, yah know when
>Wayne was there. I ran across a curious type of a dipole called a
>conical.

What you then describe comes no where near a conical.

> The author claimed to increase bandwidth as well as radiation
>resistance close to the ground by parrelleling two folded dipoles
>Maypole fashion with each dipole leg 90 deg to the other. He claimed an
>improvement of at least an S unit above a dipole at the same height (28
>feet) as well as increased bandwidth due to the staggered resonances of
>the two dipoles i.e. one tuned to the high and the other to the low end
>of the band. Does it sound reasonable that this antenna should have any
>greater efficiency than an ordinary dipole?
No.
>
>
>Tony

Hi Tony,

This is the problem of one-shot testimonials, they never really answer
anything, but the testifier will thump the bible twice as hard to make
up for it.

More than likely, the added element filled in a coverage gap and that
gain has been applied to the entire design inappropriately.

73's
Richard Clark, KB7QHC

188. Re: 6 meter hamstick mobile?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 18:43:24 UTC
From: k2tl@optonline.net
Message-ID: <a873b5d4.0210041043.46eabd2b@posting.google.com>
Source record: 133627

Andy KC2SSB <vhfradiobuff@yahoo.com> wrote in message
news:<329rpuch18kp37lk2895t1h2percd6rpl0@4ax.com>...
> I am currently looking for an alternative to the 1/4 wave magmount I'm
> using on my car for 6 meters. I've looked at the 6m hamstick. Would
> this be a good antenna? I'm running 100w FM only, no SSB stuff.
> =-
> 73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
> Beachwood, NJ USA Grid FM29vw
> http://vhfradiobuff.tripod.com

I have one, and I could NEVER get it to resonate anywhere in the 6
meter band. It may be just be a bad one, because I have 6 other
Hamsticks, and they all work FB. I bought mine from Iron Horse.
Maybe another brand of Hamstick might be a better choice for 6
meters. Or maybe I just got a lemon.

189. Re: Magnetic Loop 40m

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 18:56:52 UTC
From: k2tl@optonline.net
Message-ID: <a873b5d4.0210041056.76c89a51@posting.google.com>
Source record: 133628

Mike Coslo <mcoslo@adelphia.net> wrote in message news:<3D91658A.3020308@adelphia.net>...
> Alex wrote:
>
> > I would like to build a magnetic loop for 40m using a trombone capacitor.
> > What i was wondering if anyone had a design for one? 73
>
>
> Hi Alex,
>
>
> I'm building one now, but the design isn't quite ready for prime-time
> yet. This antenna should tune well below 40 meters, so might be a little
> overkill for you. But it will be fairly efficient on 40.
>
> I can tell you it is around 7 meters in circumfrence. I have made a four
> pronged trombone capacitor (two prongs in series-two in parallel) using
> 19 mm copper pipe for the loop and outer part of the cap, and 13mm pipe
> and mylar dielectric for the other part. The cap has around 300 mm travel.
>
> The shape is octagonal. The pipe is soldered together.
>
> The motor to adjust the cap hasn't been chosen yet. HOpe this helps a little.
>
> - Mike KB3EIA -

The problem with a trombone capacitor is that you can not easily
adjust it. In a magnetic loop antenna, the bandwidth at resonance is
very narrow, maybe just a few Khz, This means you have to re-adjust
the capacitor every time you QSY even a tad..unless you want to park
on one frequency. A better solution is a vacuum variable capacitor.
You can remotely tune it from your shack using a cordless screwdriver
motor. I built one, so I know.
I spent a ton of money learning about and building magnetic loops.
Almost got divorced over it too! In the end, I discovered it was the
biggest folly of my 38 years in Ham Radio. You will get better
performance from a hunk of wire tossed in a tree. Good luck!
K2TL

190. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 20:05:31 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <fwmn9.6631$s5.211900@twister.southeast.rr.com>
Source record: 133629

Thanks guys. I'll meditate on this over the weekend. It's coming back to me now...

>
> Roy Lewallen, W7EL
>
> (*) The current density actually decreases exponentially inward from the
> surface, and drops to a very low value within a small distance. The
> distance from the surface where it reaches about 37% (1/e) of the
> surface value is called the skin depth.
>

If it's an RF current only though...right?

Alan

191. Re: Threat to worldwide use of 70cm band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 20:17:08 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <uprtq7rmb50v7b@corp.supernews.com>
Source record: 133630
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

Sorry Dwight, it was supposed to read "Dwight, he (meaning Berry)

Since my recent stroke, I sometimes get my words mixed up. I try to
carefully read before hitting send. I screwed this one up.

"Dwight Stewart" <stewart@sc.rr.com> wrote in message
news:B9C2B93A.B8A8%stewart@sc.rr.com...
> "Fred Hambrecht" wrote:
> >
> > Dwight is a troll from the CB world. He enjoys
> > jerking HAM chains when ever he can.
>
>
> Well, since I haven't trolled from the CB world, or posted anything that
> might jerk any ham's chain recently, I assume you must be talking about
> Barry instead of me above.
>
>
> Dwight Stewart (W5NET)
>
> http://www.qsl.net/w5net/
>

192. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 20:56:17 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ankv9hosn0@208.206.142.72>
Source record: 133631

Alan wrote:
>
> I feel like an imbecile asking this question, especially after having been
> in and out of Ham Radio for years, but why is it a 450 or 600 ohm
> transmission line 'conveys' energy better and more efficiently than a line
> with less resistance?

The quick and dirty answer is that higher impedance = higher efficiency
than low impedance line due to lower loss incurred since the current
flow is lower.
Do the Ohm's law math. Low resistance = higher current for a given
power level which = more I^2R loss which = lower efficiency. That = less
RF energy arriving at the antenna.

This is true with any electrical circuit, not just antenna feedlines.

Dick

193. Dipole balun

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 21:33:57 UTC
From: lc <larryc@northwest.com>
Message-ID: <3D9E0945.829E9AB8@northwest.com>
Source record: 133632

I've a purely technical question.

I've built dipoles using a 1/4 wave line from the feed center down 1/4 wave and soldered to the coax braid. Good isolation.

Can I do the same using just a single wire (16 ga solid)? Did not check this aspect out when I had the eqmt to do so...

194. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 21:45:15 UTC
From: tdonaly@aol.com
Message-ID: <20021004174515.21919.00000352@mb-mc.aol.com>
Source record: 133633

>
>Alan wrote:
>>
>> I feel like an imbecile asking this question, especially after having been
>> in and out of Ham Radio for years, but why is it a 450 or 600 ohm
>> transmission line 'conveys' energy better and more efficiently than a line
>> with less resistance?
>
>
> The quick and dirty answer is that higher impedance = higher efficiency
>than low impedance line due to lower loss incurred since the current
>flow is lower.
> Do the Ohm's law math. Low resistance = higher current for a given
>power level which = more I^2R loss which = lower efficiency. That = less
>RF energy arriving at the antenna.
>
> This is true with any electrical circuit, not just antenna feedlines.
>
> Dick
>

Does that mean that 31.623 mA through a 1kilohm resistor will produce more
power dissipation than 1mA through a 1Megohm resistor?

Tom Donaly, KA6RUH

195. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 21:50:01 UTC
From: Jim Pennino <jimp@specsol.com>
Message-ID: <anl2e9$l09$1@mail.specsol.com>
Source record: 133634

Richard Clark <kb7qhc@attbi.com> wrote:
> On Fri, 4 Oct 2002 13:17:37 -0400, "Stephen C. Robbins"
> <srobbinsNoSPaMDUDES@netacc.net> wrote:

>>
>>"Radioguy" <nospam@nospam.com> wrote in message
>>news:ank0fk$l06$1@nntp9.atl.mindspring.net...
>>>
>>> Dental bridges???
>>>
>>
>>Sure, the Berylium Copper alloy can be cast to very exact tolerances and is
>>very stiff. It will not deform from the forces of chewing a steak or biting
>>the dog... what have you.
>>
>>Berylium particles have only been problematic when inhaled into the lungs.
>>No particles can be extracted from the alloy in normal day to day use/wear
>>and tear. That is why it is in every home practically in several
>>applications and not causing any problems.
>>
>>Steve
>>
>>
> Hi Steve,

> They used to say the mercury in dental work was OK too because of the
> amalgam, "no problems" - science and dentistry now tends away from
> amalgam because of the mercury leaching out. My dentist's work has
> been mercury free for at least 15 years. It is never an issue of any
> particular single exposure, rather the problem is in constant "low
> level" exposure. Such toxins are cumulative.

> 73's
> Richard Clark, KB7QHC

They, the ADA, still says mercury is OK in dental work.

http://www.ada.org/public/media/newsrel/amalgam0207/nr-07.html

Dentistry now tends away from amalgam because of the loud and litigious.

--
Jim Pennino

196. Re: W9INN vs. G5RV jr.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 22:03:41 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9E103D.B8453FC1@ieee.org>
Source record: 133635

Reg Edwards wrote:
> For good performance on the
> > higher bands, a G5RV should NOT be used in an inverted-V configuration.

> Why not ? It's no different from any other inverted-V dipole

Of course it's different from inverted-V dipoles that have the maximum
current at the feedpoints. A multi-wavelength inverted-V is absolutely
terrible and only an S-unit better than an expensive vertical.

> Please change your name back to Cecil. "Dear CAM" doesn't sound right.

"CAM" are my initials AND my *nickname* since high school. But my really
close friends call me "Bubba". How does, "Dear Bubba", sound?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

197. Re: Conical Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 22:03:46 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailnospamorama.com>
Message-ID: <Rmon9.19378$YK4.1869913@e3500-atl2.usenetserver.com>
Source record: 133637

```
--
73,
Chuck
KE4ETH

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:b1orpu0ik27r2hnr7p2j05oq87smv0vhb8@4ax.com...
> On Fri, 04 Oct 2002 10:52:18 -0700, WA6LZH <tangeram@lucent.com>
> wrote:
>
> >I've been going through my collection of old CQ Magazines, yah know when
> >Wayne was there. I ran across a curious type of a dipole called a
> >conical.
>
> What you then describe comes no where near a conical.
>
Maybe it was a typo. Possibly should have been comical.
```

198. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 22:07:51 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9E1137.1314611D@ieee.org>
Source record: 133636

Alan wrote:
> I feel like an imbecile asking this question, especially after having been
> in and out of Ham Radio for years, but why is it a 450 or 600 ohm
> transmission line 'conveys' energy better and more efficiently than a line
> with less resistance?

At HF, the transmission line losses are mostly due to copper I^2*R losses.
The current in the transmission line is inversely proportional to the
characteristic impedance, i.e. higher Z0 = lower I^2*R losses.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

199. Dead angle antenna rotor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 22:46:17 UTC
From: Serge Stroobandt <serge@stroobandt.com>
Message-ID: <anl5nn$13nvl$1@sinclair.be.wanadoo.com>
Source record: 133638

Hi there,

I am about to put my first directional HF antenna up.
(An OB6-3M tri-band with 20m Moxon from www.optibeam.de)
However, as directional HF antennas are new to me, I am wondering in what direction I should leave the "dead angel" of my antenna rotor.

For your information, I am living in Belgium (ON). My guess would be North because few day-time 10-20m QSOs would be in that direction.
Is this good reasoning?
Please correct me if I am wrong.

Tnx & 73 de
ON4BAA
Serge

200. The latest mathematical advances.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 23:18:48 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <anl7kn$8db$1@paris.btinternet.com>
Source record: 133639

Dick Carroll wrote - Do the Ohm's law math.

==========

Dick, that's the trouble with education these days !

The kids are taught from the age of 5 that 'maths' is frightening hard work.

Primary school teachers are in short supply and want paying extra for teaching 'maths.'

They get kicks out of being called 'maths' teachers. It's a subtle form of promotion. It sounds more distinguished.

Ill-educated Education Authorities themselves advertise for school teachers with the ability to teach 'maths' to juniors.

The dread of 'maths' and 'advanced maths' propagates all the way to the colleges and universities.

Authors of articles in radio magazines, annuals and compendiums feel they must appologise at the outset for including such mind boggling mathematical phrases as V=I*R.

Technical editors skip whole paragraphs. The printers are no better.

It results in employers having to teach ARITHMETIC to new employees before they can be expected to be of any use.

Beaming Government Ministers of Education visit classrooms and enquire from toddlers how they are doing at 'maths'.

Aged distinguished professors of engineering and science are obliged to teach ARITHMETIC to 1st year, 20-year old students before they can make any sense out of a quadratic equation. Logs come in year 2.

Some years back, just before a General Election, a prospective member of parliament canvassing voters in a bar was asked what seven nines were. He didn't know.

A few days later he lost his cash deposit. Otherwise he might have ended up in number 11 Downing Street as the Chancellor of the Exchequer !

But ragged South American street urchins, never had a school, living with rats in city sewers, pushing home-rolled cannabis cigarettes, can work out the change for 5 ten peseto notes for 7.75 fags at 5.5 pesitos each in milliseconds.

The last I heard was about a team of mathematical research workers visiting Rio to discover how it was done.

And Tony says "Education, Education, Education" before getting on with more important matters like oil.

Reg.

201. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 23:24:22 UTC
From: jgboyles@aol.com
Message-ID: <20021004192422.17466.00000427@mb-ma.aol.com>
Source record: 133640

>but why is it a 450 or 600 ohm
>transmission line 'conveys' energy better and more efficiently than a line
>with less resistance?

I always thought it was because the "lower" impedance transmission lines were coaxial cable. Coax has higher dielectric loss, as well as I^2*R losses. Open wire line generally uses larger conductors than coax. On coaxial lines having a high VSWR, the return loss is high, because of dielectric losses, so less power is radiated. 450 or 600 ohm line does not have these losses, so more power is radiated. These lines can operate with a high VSWR, and still deliver most of your power to your antenna, where it will be radiated.
Air dielectric coaxial cable with a 600 ohm characteristic impedance will work as well as open wire line, but producing it for the average ham to use is impossible because of the physics of transmission lines.
But, you get the idea, 50 ohm coax is a lot more lossy than 600 ohm open wire line at high SWR.

73 Gary N4AST

202. Re: Antenna Length?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-04 23:53:22 UTC
From: JFK <JFK@yahoo.com>
Message-ID: <anl9m5$3gu$1@news7.svr.pol.co.uk>
Source record: 133641

What's dipole?

Sorry :o}

John

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3D9D13EE.1E3EF166@ieee.org...
> JF wrote:
> > Anyone know what the optimum antenna length for FM radio is?
>
> For a dipole, about 468/98 ~ 4.8 ft. Or cut it for your favorite
> frequency.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
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> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

203. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 00:07:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <upsbaajmq0ag74@corp.supernews.com>
Source record: 133642

Nope, that's wrong. The reason coax is lossier than open wire line isn't because of the dielectric. In a coax cable, the field from the center conductor all couples to the outer conductor, with a relatively short path between. It's this very tight coupling (think of it as high capacitance if you like) that leads to the lower impedances for coax than you see with open wire line. The only reason that foam dielectric or partial air dielectric coax cable has lower loss than solid dielctric coax is that for a given Z0 and outer diameter, the center conductor is larger. This of course reduces the conductor loss.

What I've said is verifiable in a number of ways. One is to calculate the dielectric and conductor loss from published material properties. You'll see that the dielectric loss is so much less than the conductor loss as to be insignificant until you reach somewhere around 1 - 10 GHz. Above that, the dielectric loss does dominate. If you have a curve of measured cable loss, you can see where this happens by the change in slope -- in the conductor loss region, the loss in dB increases as the square root of frequency. In the dielectric loss region, it increases in direct proportion to frequency. That is, in fact, how the dielectric loss eventually "catches up" with the conductor loss -- it's a stronger function of frequency.

I assume that the dielectric loss begins dominating at a lower frequency for open wire line than it does for coax, but I don't have any supporting data. Any curves I've seen of open wire or ladder line over the HF-VHF range at least show the expected square root dependency of loss on frequency, so over that range at least the conductor loss still dominates.

Roy Lewallen, W7EL

JGBOYLES wrote:
>>but why is it a 450 or 600 ohm
>>transmission line 'conveys' energy better and more efficiently than a line
>>with less resistance?
>
>
> I always thought it was because the "lower" impedance transmission lines were
> coaxial cable. Coax has higher dielectric loss, as well as I^2*R losses. Open
> wire line generally uses larger conductors than coax. On coaxial lines having
> a high VSWR, the return loss is high, because of dielectric losses, so less
> power is radiated. 450 or 600 ohm line does not have these losses, so more
> power is radiated. These lines can operate with a high VSWR, and still
> deliver most of your power to your antenna, where it will be radiated.
> Air dielectric coaxial cable with a 600 ohm characteristic impedance will work

> as well as open wire line, but producing it for the average ham to use is
> impossible because of the physics of transmission lines.
> But, you get the idea, 50 ohm coax is a lot more lossy than 600 ohm open wire
> line at high SWR.
>
> 73 Gary N4AST

204. Re: Dead angle antenna rotor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 00:08:09 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3d9e31e8_1@news1.prserv.net>
Source record: 133643

Serge:
Here is an alternative way to think about it. Make a list of the bearings
you work, or wish to work, the most. Then put the dead angle where you
don't have to go all the way around to cover most of the popular directions.

--
Crazy George
Remove NO and SPAM from return address
Serge Stroobandt <serge@stroobandt.com> wrote in message
news:anl5nn$13nvl$1@sinclair.be.wanadoo.com...
> Hi there,
>
> I am about to put my first directional HF antenna up.
> (An OB6-3M tri-band with 20m Moxon from www.optibeam.de)
> However, as directional HF antennas are new to me, I am wondering in what
> direction I should leave the "dead angel" of my antenna rotor.
>
> For your information, I am living in Belgium (ON). My guess would be North
> because few day-time 10-20m QSOs would be in that direction.
> Is this good reasoning?
> Please correct me if I am wrong.
>
> Tnx & 73 de
> ON4BAA
> Serge
>
>
>

205. Re: Dead angle antenna rotor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 00:13:03 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <YGmdnQ7rSbP4pQKgXTWcpw@News.GigaNews.Com>
Source record: 133644

Serge,

You usually don't have a chioce, or maybe a choice of two. The stops are usually at SOUTH, so you can have NORTH in the center. Some rotors let you reverse the scale so you can have SOUTH in the center. The reasoning is, when you turn your antenna from EAST to WEST, do you want to go past NORTH or past SOUTH?. There is no dead spot as such. They will turn 360 degrees, or almost. Yaesu rotators will turn 540 degrees. From Belgium, unless you are switching between S. America and the Middle East a lot, you will want North center - which means stop at SOUTH, center on NORTH. If you put the stop at NORTH, you would have to go almost full circle to swing from the UK to say Sweden.

Tam/WB2TT
"Serge Stroobandt" <serge@stroobandt.com> wrote in message
news:anl5nn$13nvl$1@sinclair.be.wanadoo.com...
> Hi there,
>
> I am about to put my first directional HF antenna up.
> (An OB6-3M tri-band with 20m Moxon from www.optibeam.de)
> However, as directional HF antennas are new to me, I am wondering in what
> direction I should leave the "dead angel" of my antenna rotor.
>
> For your information, I am living in Belgium (ON). My guess would be North
> because few day-time 10-20m QSOs would be in that direction.
> Is this good reasoning?
> Please correct me if I am wrong.
>
> Tnx & 73 de
> ON4BAA
> Serge
>
>
>

206. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 00:13:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <upsbkh26fl61d7@corp.supernews.com>
Source record: 133645

Alan wrote:
> Thanks guys. I'll meditate on this over the weekend. It's coming back to me
> now...
>
>
>>Roy Lewallen, W7EL
>>
>>(*) The current density actually decreases exponentially inward from the
>>surface, and drops to a very low value within a small distance. The
>>distance from the surface where it reaches about 37% (1/e) of the
>>surface value is called the skin depth.
>>
>
>
> If it's an RF current only though...right?
>
> Alan

There's no magic frequency where skin effect begins to occur. It's present at any frequency, just not at D.C. But the skin depth decreases in proportion to the square root of the frequency, so it becomes shallower as the frequency increases. Depending on the wire size and conductivity, somewhere well below the RF range the skin depth becomes comparable to the wire diameter. And somewhere around there, and at lower frequencies, the resistance is essentially the same as the DC resistance of the wire. By the time you get to RF, though, all but the very tiniest wires are several skin depths in diameter, so the current decays to a negligible value well before it reaches the center of the wire.

Roy Lewallen, W7EL

207. Re: Antenna Length?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 01:18:46 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <upsffrfskd5jea@corp.supernews.com>
Source record: 133646

Forgetting definitions (I realize you want to know what time it is, and not the history of clocks) do the following:

Get a piece of flat television twinlead, also called 300 ohm twinlead or ribbon.

1. Cut it 5 foot long
1A. then remove the insulation from both wires on one end and the twist the wires together.

1B. Do the same thing at the other end.

You now have a piece of wire that looks like this:

```
_____________________________________ Top Wire
X X
X_____________________________________X Bottom
```

where the X = the twisted wires on the end.

2. go to the middle of the bottom wire and cut ONLY the bottom wire in two and remove the insulation from each side of the cut. Connect another piece of twinlead to the two pieces you just exposed.

you now have:

```
_____________________________________
X X
X_______________ _______________X
| |
```

Make the twinlead of sufficient length to go from your new "folded dipole" to your radio.

Put a thumb tack through each end and stick it to a wall.

Your done!

Improvement #1 Solder all connections.

Improvement #2 align the direction of the antenna , do this by holding your arms out and facing in the direction of the radio station. Now pretend you are holding your dipole in your arms. Mount the dipole so it faces the station exactly as it would held in your arms.

Hope that helps!

"JFK" <JFK@yahoo.com> wrote in message
news:anl9m5$3gu$1@news7.svr.pol.co.uk...
> What's dipole?
>

> Sorry :o}
>
> John
>
>
> "CAM" <Cecil.A.Moore@ieee.org> wrote in message
> news:3D9D13EE.1E3EF166@ieee.org...
> > JF wrote:
> > > Anyone know what the optimum antenna length for FM radio is?
> > >
> > For a dipole, about 468/98 ~ 4.8 ft. Or cut it for your favorite
> > frequency.
> > --
> > cheers, CAM http://www.qsl.net/w5dxp
> > >
> > >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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>
>

208. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 01:46:50 UTC
From: "Stephen C. Robbins" <srobbinsNoSPaMDUDES@netacc.net>
Message-ID: <3d9e4475$1@news.netacc.net>
Source record: 133647

"Jim Pennino" <jimp@specsol.com> wrote in message
news:anl2e9$l09$1@mail.specsol.com...
>
> http://www.ada.org/public/media/newsrel/amalgam0207/nr-07.html
>
> Dentistry now tends away from amalgam because of the loud and litigious.
>
>
> --
> Jim Pennino

AMEN to that Jim!

209. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 01:50:45 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <adaspuo6d4tjag7mq2mb0e7movuti5n8fg@4ax.com>
Source record: 133648

On 04 Oct 2002 23:24:22 GMT, jgboyles@aol.com (JGBOYLES) wrote:

|>but why is it a 450 or 600 ohm
|>transmission line 'conveys' energy better and more efficiently than a line
|>with less resistance?
|
|I always thought it was because the "lower" impedance transmission lines were
|coaxial cable.

No.

|Coax has higher dielectric loss, as well as I^2*R losses.

Technically true, but practically the dielectric loss at HF to VHF is
a non-issue.

| Open
|wire line generally uses larger conductors than coax.

Maybe, maybe not. Six-inch spaced 600 ohm open wire will use 12 AWG
(0.08"). The center conductor of RG213 is the same size and the outer
conductor is a hell of a lot bigger than that. I have some "450 ohm"
window line with 18 AWG conductors

|On coaxial lines having
|a high VSWR, the return loss is high, because of dielectric losses, so less
|power is radiated.

Once again you are overestimating the effects of dielectric loss. The
reason loss is higher in lines using dielectric is that the presence
of the dielectric requires smaller conductors be used if a constant Zo
is to be maintained. It is the reduction of conductor size, hence
higher I^2 R loss, that causes the increased loss, not the presence of
the dielectric.

|450 or 600 ohm line does not have these losses, so more
|power is radiated. These lines can operate with a high VSWR, and still
|deliver most of your power to your antenna, where it will be radiated.

Unless of course, you are using window line and you add water <g>.

Wes N7WS

210. Re: The latest mathematical advances.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 02:00:00 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <rehspuoesic4s0gacu7qbpc8putrlveboh@4ax.com>
Source record: 133649

On Fri, 4 Oct 2002 23:18:48 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

|
|But ragged South American street urchins, never had a school, living with
|rats in city sewers, pushing home-rolled cannabis cigarettes, can work out
|the change for 5 ten peseto notes for 7.75 fags at 5.5 pesitos each in
|milliseconds.

Reminds me of a story told by a fellow engineer. He was in the U.S.
Marine Corps during WW-II and after the JAs surrendered he and his
unit were sent up some river in China to round up some of the folks
that hadn't gotten the word yet that they had lost.

They pulled into some hamlet and set up camp. He said it took about
five minutes for the locals to completely understand U.S. currency.

211. Re: Conical Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 02:00:53 UTC
From: Bob Nielsen <nielsen@remove_this.oz.net>
Message-ID: <anlh4l$583$0@216.39.144.81>
Source record: 133650

On Fri, 4 Oct 2002 17:03:46 -0500, Chuck/KE4ETH wrote:
>
>
> --
> 73,
> Chuck
> KE4ETH
>
> "Richard Clark" <kb7qhc@attbi.com> wrote in message
> news:b1orpu0ik27r2hnr7p2j05oq87smv0vhb8@4ax.com...
>> On Fri, 04 Oct 2002 10:52:18 -0700, WA6LZH <tangeram@lucent.com>
>> wrote:
>>
>> >I've been going through my collection of old CQ Magazines, yah know when
>> >Wayne was there. I ran across a curious type of a dipole called a
>> >conical.
>>
>> What you then describe comes no where near a conical.
>>
> Maybe it was a typo. Possibly should have been comical.
>

Especially when constructed with insulted wire. Maybe it was described
in a column by Scratchi.

73,
Bob, N7XY

212. G5RV, single or double length ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 02:02:36 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210041802.2a8d@posting.google.com>
Source record: 133651

Hi,

After have discussed and questioning many readers of this forum these last weeks about the buying of a vertical vs a dipole for DXing and mainly listening purposes (and very soon to TX I hope), from your comments and the ones of a french forum I am happy to tell you I decided to buy... a G5RV, at last !,
and FYI from http://www.antennasmore.com/g5rv.htm , as it seems to display the best quality and e elelnts reviews on eham website.

This is not a very original announcement but at least I could now do some comparisons between performances of this dipole, my ALA-330 mag loop and my 40m longwire.

There is however one last question : must I buy a full length G5RV (102', 31m) or a double size (204' 67m) if I'm first interested in DXing in bands from 20m to 10m (mainly in the summer time but of course in the lower ones too, 80-40m to 10m, in the winter).

200' is rather long, even if I can fold it a bit in inverted V if I attach it to a pintree or to mast I could install on my roof top (chemny). But don't you think that length could be intersted to get more low angles and narrower lobes ?

Theoretically what are really the benefits of using such a long dipole vs the 100' version ?,
And practically is there really a difference (a boom of the S-meter ?, lower noise, probably not...) with the 100' v ?
At last is there a benefit of using the 200' if one day I have to fold it or to give it a shape in zig-zag (shape of W as seen from above) if there is a lack of place ?

Thanks for your comments

73
Thierry
ONL5183
http://www.astrosurf.com/lombry/menu-qsl.htm

213. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 02:13:11 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <0lispuodg350v53l8r0qj1d4v9hqqat5fv@4ax.com>
Source record: 133655

On Fri, 04 Oct 2002 18:50:45 -0700, Wes Stewart <n7ws@nowhere.com>
wrote:

>Unless of course, you are using window line and you add water <g>.
>
>Wes N7WS

And start to grow moss :-)

Danny, K6MHE

214. Re: G5RV, single or double length ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 02:26:32 UTC
From: Bob Miller <bamiller@texas.net>
Message-ID: <w0yePYmOiPkv6iOS6gmfQmSjyCnK@4ax.com>
Source record: 133652

lombryt@hotmail.com (Thierry) wrote:

>Hi,

>
>There is however one last question : must I buy a full length G5RV
>(102', 31m) or a double size (204' 67m) if I'm first interested in
>DXing in bands from 20m to 10m (mainly in the summer time but of
>course in the lower ones too, 80-40m to 10m, in the winter).

The simple answer is... the 102 foot one is good for 80-10. The longer version is normally purchased so one can also work 160 meters. Don't know if the extra length will help on the higher bands that seem to be of interst to you.

Bob
k5qwg

>
>Thanks for your comments
>
>73
>Thierry
>ONL5183
>http://www.astrosurf.com/lombry/menu-qsl.htm

215. Re: The latest mathematical advances.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 02:29:30 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <anliqa$ar4$0@208.207.71.151>
Source record: 133653

Reg Edwards wrote:
>
> Dick Carroll wrote - Do the Ohm's law math.
>
> ==========
>
> Dick, that's the trouble with education these days !
>
> The kids are taught from the age of 5 that 'maths' is frightening hard work.
>
> Primary school teachers are in short supply and want paying extra for
> teaching 'maths.'
>
> They get kicks out of being called 'maths' teachers. It's a subtle form of
> promotion. It sounds more distinguished.
>
> Ill-educated Education Authorities themselves advertise for school teachers
> with the ability to teach 'maths' to juniors.
>
> The dread of 'maths' and 'advanced maths' propagates all the way to the
> colleges and universities.
>
> Authors of articles in radio magazines, annuals and compendiums feel they
> must appologise at the outset for including such mind boggling mathematical
> phrases as V=I*R.
>
> Technical editors skip whole paragraphs. The printers are no better.
>
> It results in employers having to teach ARITHMETIC to new employees before
> they can be expected to be of any use.
>
> Beaming Government Ministers of Education visit classrooms and enquire from
> toddlers how they are doing at 'maths'.
>
> Aged distinguished professors of engineering and science are obliged to
> teach ARITHMETIC to 1st year, 20-year old students before they can make any
> sense out of a quadratic equation. Logs come in year 2.
>
> Some years back, just before a General Election, a prospective member of
> parliament canvassing voters in a bar was asked what seven nines were. He
> didn't know.
>
> A few days later he lost his cash deposit. Otherwise he might have ended up
> in number 11 Downing Street as the Chancellor of the Exchequer !

>
> But ragged South American street urchins, never had a school, living with
> rats in city sewers, pushing home-rolled cannabis cigarettes, can work out
> the change for 5 ten peseto notes for 7.75 fags at 5.5 pesitos each in
> milliseconds.
>
> The last I heard was about a team of mathematical research workers visiting
> Rio to discover how it was done.
>
> And Tony says "Education, Education, Education" before getting on with more
> important matters like oil.

Nice rant, Reg, but all too accurate, I'm afraid...my YF spent her
working career as a 5th grade schoolteacher. Long ago she mentioned,
much to my surprise, that they no longer taught students to memorize the
multiplication table. The Education Establishment had decided that such
rote memorization wasn't proper. It also always surprised me how many
students arrived at 5th grade level who couldn't read. They usually
could after she got finished with them, though.

Dick

216. A portable antenna for DXing ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 02:30:30 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210041830.5f8061fd@posting.google.com>
Source record: 133654

Hi,

I am searching a portable antenna to use :
- 1st, abroad, in hotels (on the balconery, through the window, in the field, etc)
- 2d, also when there are too much QRM at home and I want to work in "emergency situations" in a quiet spot outdoor, as they are many in LX or south ON.
and mainly on bands from (40m) 20m to 10m.

There are not many portable antenna (commercial) on the place :
- MP-1, http://www.superantennas.com/___Products/___products.html
- B&W AP10, http://www.bwantennas.com/ap10a.htm
- and last but not least the versatile buddipole, http://www.buddipole.com/
NB. The buddipole exceed twice the price of the 2 first but here is not the question.

What are your experience of these whips and ï¿½ verticadipole ï¿½ as I qualify the last one ?
Some say the MP-1 is better than the AP-10 for Dxing
As SWL (but soon licensed I hope) should it be more interesting for Dxing in the field or in hotels to buy a MP-1 or the latest, or both are useless (I don’t think so) and there are other solutions much more efficient, then which ones ?

(I hope you will confirm the interest of the buddipole, it "looks" great !, and seems to use very nice material - it can for what it cost, $200-350+ according the accessories... -).

73
Thierry
ONL5183
http://www.astrosurf.com/lombry/menu-qsl.htm

217. Re: 6 meter hamstick mobile?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 03:27:26 UTC
From: Andy KC2SSB <vhfradiobuff@yahoo.com>
Message-ID: <f0nspuc1tmoduutejchg1jsskq1ni548n1@4ax.com>
Source record: 133656

On 4 Oct 2002 11:43:24 -0700, k2tl@optonline.net (K2TL) wrote:

>I have one, and I could NEVER get it to resonate anywhere in the 6
>meter band. It may be just be a bad one, because I have 6 other
>Hamsticks, and they all work FB. I bought mine from Iron Horse.
>Maybe another brand of Hamstick might be a better choice for 6
>meters. Or maybe I just got a lemon.

The one I've looked at says it is specifically made for 6 meters.
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com

218. Antennas and MORE CD: FS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 03:47:08 UTC
From: George Kinzer <horseflygk@worldnet.att.net>
Message-ID: <0htn9.3526$ue4.200224@bgtnsc04-news.ops.worldnet.att.net>
Source record: 133657

Plans on how to make your own base and mobile antennas, from quarter waves
to beams, quads, and MORE. (These files alone will pay for itself)

UNDERSTANDING coax, swr's, line loss, co-phasing, grounding and MORE. (you
could go to library, copy and forget where you put it..)

CD also includes tuning AND modifications on just about every cb as well as
most 10 meter radios. (for educational purposes) golderscrewdriver is what
$39.95?

Mic wiring to all popular cbs, D104, Sedelata, Turner, standard and of
course MORE. (heck, wanna know whats IN a D-104?)

PLL convertions, adding talk-back, swing kits, roger beeps and MORE
(go to your local shop and ask them to do it, what? more money?)

Packed with pictures, how toos, parts and MORE.

How bout takin a radio and electronics course? FREE
Now includes NTE's cross reference 10.0 program to find over 14,000 parts
!!!! FREE
Schematics, figs, how too's, plus a lot of Amplifier stuff, programs that'll
help you BUILD your own stuff..
need I say MORE?

email for more info, over 130 megs of info in easy to understand format.

Organized for EASY reference.
$20.00

--
If first you don't succeed, do the same thing again...see what happens

.* *)) -:*:-
. .****))
George Kinzer
((**.** ..**
-:*:- ((**
**.*

Those who want to be successful, will find a way,
those that don't, will find an excuse!

219. Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 04:25:01 UTC
From: riffin-rich <riffin-rich@cantspam.me>
Message-ID: <laqspuog7m7vte73jlb6ge1um0v52l61o8@4ax.com>
Source record: 133658

Hello fellow hams. Please help me solve this problem...subject says
it all. 20M appears to be the only band I'm having a problem on...
If I leave my stereo on, forget it... I blast myself out of the truck
with the interference. With the stereo off, I still hear my audio
over the speaker system (very heavily distorted).

Ultimately, I want to leave my stereo on, because I run the radio
output into a casette/adapter to play the radio output across my
stereo. As I said, this works great on all bands except 20M

Setup:
Ford F-250 diesel (no ignition noise--SWEET! ;-)
Icom IC-706, barefoot, 100W
SGC SG-230 Coupler
SGC SG-303 Antenna

Radio is wired to the battery directly...

Thanks,
Rich Seifert, KB2ZMF, Co Springs

220. License plate mount for Hamstick?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 04:31:24 UTC
From: Andy KC2SSB <vhfradiobuff@yahoo.com>
Message-ID: <2lqspuoth1favdqm1cq0merh8adg1dpcvk@4ax.com>
Source record: 133659

Hello. I am considering a hamstick for 6 meters and someone suggested
that I use a license plate mount offered on the hamstick website at
http://www.hamstick.com/Tm-1.html. Has anyone ever used one of these
mounts? Does it require that you use metal screws on the license plate
(I use plastic to prevent rust). Any idea how this will perform with
the 6m hamstick compared to a magmounted 1/4 wave on the roof
(actually, a 2m 5/8 wave, but used as a 1/4 wave on 6m)?
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com

221. Re: Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 04:36:20 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <3%tn9.143$Qj3.86713@news20.bellglobal.com>
Source record: 133661

"riffin-rich"
> subject says it all.

Ferrite cores on the speaker leads, fairly close to the stereo (?).

> Ford F-250 diesel (no ignition noise--SWEET! ;-)

Just the clatter of the diesel... :-)

222. Re: Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 04:37:37 UTC
From: mailfrmpa@aol.com
Message-ID: <20021005003737.28535.00007457@mb-cm.aol.com>
Source record: 133660

Radio grounded to the chassis? Physical seperation between audio line to the cassette deck and the antenna feedline? Any bonding of truck parts to chassis? Where is the antenna mounted?

K0MB

223. Re: License plate mount for Hamstick?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 04:42:25 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3D9E6D33.4498EC7C@tampabay.rr.com>
Source record: 133662

andy
as i told you when i suggested this mount it comes with the required
hardware which includes stainless steel bolts to attach the mount and
license plate you cant use plastic cause it wouldnt hold up to the stress
of the antenna on it
if you would pay attention to what these people write to you you may just
learn something
i am currently using this mount i suggested to you and it is working
wonderfully i have used it with a 102" whip a 17 meter hamstick and
several of the hustler mobile resonators on a 54" mast with no problems
what so ever

Andy KC2SSB wrote:

> Hello. I am considering a hamstick for 6 meters and someone suggested
> that I use a license plate mount offered on the hamstick website at
> http://www.hamstick.com/Tm-1.html. Has anyone ever used one of these
> mounts? Does it require that you use metal screws on the license plate
> (I use plastic to prevent rust). Any idea how this will perform with
> the 6m hamstick compared to a magmounted 1/4 wave on the roof
> (actually, a 2m 5/8 wave, but used as a 1/4 wave on 6m)?
> =-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
> 73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
> Beachwood, NJ USA Grid FM29vw
> http://vhfradiobuff.tripod.com

224. Re: Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 04:46:02 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3D9E6E0B.18FE2CFA@tampabay.rr.com>
Source record: 133663

sounds like your speaker wires are on the resonat lenght for 20 meters i
would shorten them of get some ferrit cores to wrap around them to stop
any stray RF from getting in
i would suggest going to your local car audio installer and tell them
your problem and see uf they have the cure in stock if not they try
messing with the wire lengths going to the amp and to the speakers since
you are getting with it on and off
good luck

riffin-rich wrote:

> Hello fellow hams. Please help me solve this problem...subject says
> it all. 20M appears to be the only band I'm having a problem on...
> If I leave my stereo on, forget it... I blast myself out of the truck
> with the interference. With the stereo off, I still hear my audio
> over the speaker system (very heavily distorted).
>
> Ultimately, I want to leave my stereo on, because I run the radio
> output into a casette/adapter to play the radio output across my
> stereo. As I said, this works great on all bands except 20M
>
> Setup:
> Ford F-250 diesel (no ignition noise--SWEET! ;-)
> Icom IC-706, barefoot, 100W
> SGC SG-230 Coupler
> SGC SG-303 Antenna
>
> Radio is wired to the battery directly...
>
> Thanks,
> Rich Seifert, KB2ZMF, Co Springs

225. Re: The latest mathematical advances.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 05:57:16 UTC
From: tdonaly@aol.com
Message-ID: <20021005015716.02776.00007631@mb-cc.aol.com>
Source record: 133664

>
>Dick Carroll wrote - Do the Ohm's law math.
>
>==========
>
>Dick, that's the trouble with education these days !
>
>The kids are taught from the age of 5 that 'maths' is frightening hard work.
>
>Primary school teachers are in short supply and want paying extra for
>teaching 'maths.'
>
>They get kicks out of being called 'maths' teachers. It's a subtle form of
>promotion. It sounds more distinguished.
>
>Ill-educated Education Authorities themselves advertise for school teachers
>with the ability to teach 'maths' to juniors.
>
>The dread of 'maths' and 'advanced maths' propagates all the way to the
>colleges and universities.
>
>Authors of articles in radio magazines, annuals and compendiums feel they
>must appologise at the outset for including such mind boggling mathematical
>phrases as V=I*R.
>
>Technical editors skip whole paragraphs. The printers are no better.
>
>It results in employers having to teach ARITHMETIC to new employees before
>they can be expected to be of any use.
>
>Beaming Government Ministers of Education visit classrooms and enquire from
>toddlers how they are doing at 'maths'.
>
>Aged distinguished professors of engineering and science are obliged to
>teach ARITHMETIC to 1st year, 20-year old students before they can make any
>sense out of a quadratic equation. Logs come in year 2.
>
>Some years back, just before a General Election, a prospective member of
>parliament canvassing voters in a bar was asked what seven nines were. He
>didn't know.
>
>A few days later he lost his cash deposit. Otherwise he might have ended up
>in number 11 Downing Street as the Chancellor of the Exchequer !
>

>But ragged South American street urchins, never had a school, living with
>rats in city sewers, pushing home-rolled cannabis cigarettes, can work out
>the change for 5 ten peseto notes for 7.75 fags at 5.5 pesitos each in
>milliseconds.
>
>The last I heard was about a team of mathematical research workers visiting
>Rio to discover how it was done.
>
>And Tony says "Education, Education, Education" before getting on with more
>important matters like oil.
>---
>Reg.
>

You must have been educated during the Golden Age of British mathematical education. Both George Bernard Shaw, and your hero, Heaviside, complained about the state of mathematical education in their time.

Tom Donaly, KA6RUH

226. Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 06:01:02 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <upt017irq5q6d2@corp.supernews.com>
Source record: 133665

I received an e-mail that had something about a 940 in the subject line, when I opened it it appeared to be a message between K5JOE and another person involved in a trade.

It apparently had been used by a third party to spread the W32BugBear virus. I noted after opening it, it was not addressed to me, but landed in my mailbox.

Be careful!

227. Lazy quad...how to connect feeder?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 08:38:52 UTC
From: Henrik <henrik>
Message-ID: <3d9ea51b$0$18117$edfadb0f@dspool01.news.tele.dk>
Source record: 133666

Hi,
Have been off the waves for a while, moved to a smaller lot, and wish to test a horizontal loop to get on the air, as I understand it is very quiet in respect to man made noise, and as I have difficulties with long runs of wire....

Thought of making a 40m loop, and hope for some performance also on 80m, and even better on the higher bands, but height over ground is a restriction too...so it will be low....say 6 feet above ground.

I want to run coax from my transceiver to the antenna, and find little help in the literature of how to connect the feeder to the loop....any experience out there with you guys?

Does it make sense with the lazy quad, or should I rather go for a vertical, which may also have to stay close to the ground with its feed point? (I have an R5 from previous times, disassembled in the basement)

Tnx in advance,
73's
de OZ6F, Henrik

228. Re: Where to get aluminium tubing???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 08:50:11 UTC
From: Les Kramer <wa3sgz@mindspring.com>
Message-ID: <anm969$g9f$1@slb0.atl.mindspring.net>
Source record: 133667
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,uk.radio.amateur

Hi Brian,

As a working professional metallurgical engineer in the USA, there are many sources of aluminum tubing available at metal warehouses in the USA. After a quick scan using google, I found that Future Metals (www.futuremetals.com/pages/branches/htm) has a UK warehouse in Hampshire. I don't know where Hampshire is relative to your QTH, but they probably have what you need. Beyond metal warehouses, try suppliers of aircraft materials or aircraft salvage yards for aluminum tubing. Metal warehouses will usually sell small amounts (i.e., a couple of meters), but the cost and cutting charge may be dear.

In the USA, suppliers ink stamp their tubing with an ASTM spec number, and in the UK they probably do the same for the appropriate British Standard. Try to get tubing of the 6061 grade in the T6 or T651 heat treatments (6061 T6 or 6061 T651 Marking) since this alloy is easy to machine, highly corrosion resistant unless it's underwater in the North Sea, easy to weld, relatively strong, and generally available.

By the way, what's B&Q? In the USA, we add another B (i.e., BBQ) and eat it as chicken, pork or beef.

Regards,

Les Kramer,

WA3SGZ

"Brian Reay" <brian.reay@bigfoot.com> wrote in message
news:ycfl9.1705$YE1.25775@newsfep1-win.server.ntli.net...
>
> "Howard Long" <howard@howardlongxxx.com> wrote in message
> news:an3rgo$n3j$1@venus.btinternet.com...
> > Hello Brian
> >
> > > Well my local 'normal' B&Q does rod, tube, and strip in Al, brass,
and
> > some
> > > composite material (plus others not so interesting to hams).
> >
> > Any chance you could point me in the area of the store I should be
> looking?
> > I've been in the hardware area, generally nearby where the screws and
nuts
> &

> > bolts are.
>
> Well in my local store (Gillingham, Kent) it is right next to the items
you
> list, along with Al and mesh sheets.
>
> I found the 6mm O/D Al tube pretty good and hard enough for my needs- I
was
> even able to tap it sucessfully for one experiment.
> There are 2 tubes- a plain finish @ £1.46 a 1m length and an anodised
finish
> which is more expensive.
>
> I think it is too hard not to be an alloy- for 'quick lashups' I sometimes
> us Al welding rod- that is much softer.
>
> >
> > My experience is that your average B&Q employee responds with a grunt if
> > you're lucky, and then if you're really lucky points you vaguely to
> nowhere
> > because they really don't know. :-(
>
> The older ones are OK but the real problem is the stock control- no
concept
> of ordering things that seem to be selling out but pack the floor space
> with stuff that never seems to move until the next sale.
> >
> > BTW, here's one of my creations, courtesy of B&Q
> > http://www.g6lvb.com/dayton_demo_2002.htm made of 4mm Al rod from B&Q.
> 70cm
> > RHCP yagi, 8+8 elements, tunes to better than 1.1:1 VSWR in the
satellite
> > portion of 70cm, under 1.4:1 across the entire band. Plans at
> > http://www.clarc.org/Articles/uhf.htm. I can recommend these antennas if
> you
> > have a history of antenna failure like I do.
>
> I'll have a look. I plan to build a 2m and 70cm handheld Yagi like the
> Arrow one- if I ever I get time for my own projects ;-)
>
> Check out my download page for the 'BRAT Hunt DF antenna' - it has proved
> very popular and I've yet to have an adverse comment as regards its
> working.
>
> 73
>
> Brian
> --
> Brian Reay

> www.g8osn.org.uk
>
>
>

229. Re: The latest mathematical advances.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 10:56:31 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <GX1Lq6FfVsn9EAk7@ifwtech.co.uk>
Source record: 133569

Wes Stewart wrote:
>On Fri, 4 Oct 2002 23:18:48 +0000 (UTC), "Reg Edwards"
><g4fgq.regp@btinternet.com> wrote:
>
>
>|
>|But ragged South American street urchins, never had a school, living with
>|rats in city sewers, pushing home-rolled cannabis cigarettes, can work out
>|the change for 5 ten peseto notes for 7.75 fags at 5.5 pesitos each in
>|milliseconds.
>
>Reminds me of a story told by a fellow engineer. He was in the U.S.
>Marine Corps during WW-II and after the JAs surrendered he and his
>unit were sent up some river in China to round up some of the folks
>that hadn't gotten the word yet that they had lost.
>
>They pulled into some hamlet and set up camp. He said it took about
>five minutes for the locals to completely understand U.S. currency.

It isn't all bad, even in Britain.

For some years, a village school in our county operated a shopping service that brought in essentials for the local old people who couldn't get into town easily. All the stock control and accounting - including taxes - was done by the primary school kids (2nd-4th graders in the USA).

My wife runs programmes linking schools with the construction industry, right down to primary level, and you should see these kids estimating quantities of materials and numbers of bricks! How do they do it? Because it's really not so difficult, when you get down to it. But what fires them up to do it? Because it's *real* - they're going to see those walls built, right there in their school.

At older ages, young people run micro-businesses in British schools, using real money, and again they take the math in their stride - including Value Added Tax.

Older still, an interior decorator who used to work with my Dad claimed that he was useless at arithmetic. But when he had to estimate rolls of wallpaper, he just went ahead, measured-up and did it. Extra rolls for large patterns with long repeat lengths? No problem - never a roll short, never a roll wasted.

The common factor in all these stories is that when you have a good practical reason to do arithmetic, it suddenly becomes very easy.

It's important to expose young people to the higher concepts of pure math, but realistically it's mostly for the sake of the one in a hundred for whom it really clicks - because we do need the next generation of pure mathematicians [1]. On the other hand, education in basic numeracy for "the rest of us" is too important to be left entirely in the hands of people with math degrees, because the talented can never truly understand why the rest of us don't find it easy too!

Fortunately something is being done about it. British primary (elementary) schools now have a fixed, timetabled Numeracy Hour every day, in an effort to get everybody up to a certain basic level of written and mental arithmetic. Rote learning of multiplication tables is back... because you get there faster if you don't have to work out 7 x 9 from first principles every single time. Calculators are used for some things, but they're banned when developing mental arithmetic skills. Suddenly it's all turned very practical.

Primary school teachers have to cover a wide range of subjects - their weak ones as well as their strong ones - and because this math problem is much more than a generation old, many teachers had some catching-up to do!

When kids are coming out of primary school with some confidence about basic arithmetic, it will give them a flying start into the higher levels of math. These developments will take another 10-20 years to trickle through into the adult population, but I think we will then see some positive results.

[1] Seriously. If you don't believe that pure math is important to a civilized world, then you'd be a hypocrite to use a DSP filter, a digital cellphone or even a CD player - because they're all "powered" by mathematics.

For radio hams, the reason to get into some math - as a first step, the simple arithmetic of Ohm's Law, power and reactance - is because IT MAKES LIFE EASIER!

That's the missing link: just realising that MATH WORKS IN REAL LIFE. It isn't "just abstract theory" - it's a basic part of the real world, and totally connected to it. If you start with real-world facts, and then do some math, the results that come out will be real-world facts too... even if you could never have guessed at them. That's what makes math useful.

Start believing in math, start using it, notice that it works... and it will all come true for you. Promise.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

230. Re: A portable antenna for DXing ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 10:58:59 UTC
From: John <my-callsign@qsl.net>
Message-ID: <TBzn9.4721$975.226177@newsfep2-win.server.ntli.net>
Source record: 133668

Thierry

I've just been operating from a hotel balcony in The Gambia (C56/G4IRN) using a 10mtr long fibreglass pole with a wire running up it.The pole was mounted on a first floor balcony and I ran a radial, or counterpoise wire, down to a tree behind the room. I centre fed the antenna with 450 Ohn ribbon through an ATU. I guess you could call it a semi vertical doublet? It seemed to work pretty well - I had nearly 6000 QSO's in 5 and a half days of operating..

I have used a simliar set-up with the pole ground mounted and running 4 ten meter long radials out from it. Again, ribbon fed through an ATU. Working with this /P in France I have successfully made QSO's with the Pacific area.

The poles are available from DK9SQ.

73 de John
G4IRN.

"Thierry" <lombryt@hotmail.com> wrote in message
news:db35a0c.0210041830.5f8061fd@posting.google.com...
> Hi,
>
> I am searching a portable antenna to use :
> - 1st, abroad, in hotels (on the balconery, through the window, in the
> field, etc)
> - 2d, also when there are too much QRM at home and I want to work in
> "emergency situations" in a quiet spot outdoor, as they are many in LX
> or south ON.
> and mainly on bands from (40m) 20m to 10m.
>
> There are not many portable antenna (commercial) on the place :
> - MP-1, http://www.superantennas.com/___Products/___products.html
> - B&W AP10, http://www.bwantennas.com/ap10a.htm
> - and last but not least the versatile buddipole,
> http://www.buddipole.com/
> NB. The buddipole exceed twice the price of the 2 first but here is
> not the question.
>
> What are your experience of these whips and verticadipole as I
> qualify the last one ?
> Some say the MP-1 is better than the AP-10 for Dxing
> As SWL (but soon licensed I hope) should it be more interesting for
> Dxing in the field or in hotels to buy a MP-1 or the latest, or both

> are useless (I don’t think so) and there are other solutions
> much more efficient, then which ones ?
>
> (I hope you will confirm the interest of the buddipole, it "looks"
> great !, and seems to use very nice material - it can for what it
> cost, $200-350+ according the accessories... -).
>
> 73
> Thierry
> ONL5183
> http://www.astrosurf.com/lombry/menu-qsl.htm

231. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 11:01:01 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <y35GiZGtZsn9EAgV@ifwtech.co.uk>
Source record: 133570

Fred Hambrecht wrote:
>I received an e-mail that had something about a 940 in the subject line,
>when I opened it it appeared to be a message between K5JOE and another
>person involved in a trade.
>
>It apparently had been used by a third party to spread the W32BugBear virus.

It had been used by the virus itself. Somebody has been careless or
naive, but it isn't necessarily any of the people whose names you see.

One of the worst features of these viruses that raid people's address
lists is the way that relationships get soured by blaming innocent
parties. So let's not do it.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

232. Re: G5RV, single or double length ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 11:32:26 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <anmik9$jf5$1@knossos.btinternet.com>
Source record: 133571

Dear Thierry,

Try to erase G5RV from your mind. With the best and kindest of motives I suggest you de-brainwash yourself.

Don't buy anything except a reel of 16 or 14 gauge enamelled copper wire.

Erect a dipole of no particular length, as high as possible, which will nicely fit into your back yard. It will do very well if its overall length is greater than about 1/3-wavelength at the lowest frequency you are interested in.

Feed it roughly at its centre with open-wire or 450-ohm ladder line, of no particular length except that it's long enough to come all the way back to the shack with 5 or 10 extra feet to allow for contingencies.

And there you have it. It will be the most power-efficient, multi-band, multi-directional, multi-elevation angle, DX and local, radiating and receiving system possible for your site.

Its beautiful simplicity is an obvious self-recommendation.

But I do not want to deter experimentation. Try the easiest to erect antenna first.

Reg.

233. Re: License plate mount for Hamstick?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 12:47:27 UTC
From: Andy KC2SSB <vhfradiobuff@yahoo.com>
Message-ID: <mintpuse4f39umfhhm596c0tln1ch5g010@4ax.com>
Source record: 133572

On Sat, 05 Oct 2002 04:42:25 GMT, Dennis Kaylor
<k4oxg@tampabay.rr.com> wrote:

>andy
>as i told you when i suggested this mount it comes with the required
>hardware which includes stainless steel bolts to attach the mount and
>license plate you cant use plastic cause it wouldnt hold up to the stress
>of the antenna on it
>if you would pay attention to what these people write to you you may just
>learn something
>i am currently using this mount i suggested to you and it is working
>wonderfully i have used it with a 102" whip a 17 meter hamstick and
>several of the hustler mobile resonators on a 54" mast with no problems
>what so ever

I do pay attention. Not everyone on this newsgroup is a member of the
6 meter sked reflector. I am seeking multiple opinions from multiple
sources, not just the opinion of 1 person. I do not base my decisions
to buy things based on *1* opinion. I also read 4 reviews of it on
eham.net and it appears that I may go that route, but I want to hear
from more operators that have used it. Thank you for your reply.
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com
REMOVE "SPAMSUX" TO EMAIL ME

234. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 12:48:23 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <mcBn9.4190$8e7.150765@news20.bellglobal.com>
Source record: 133573

"Ian White, G3SEK"
> ...viruses that raid people's address lists...

O/T - Free PC tip (especially for those without an antivirus program):

Put this entry into your e-mail program's address book.
Display Name = *virus_trap
E-mail address = <illegaladdressxyz

Be sure to include the '*' and the '<'. This new entry should show up at the top of the list. If an outgoing e-mail message (as created by a virus or worm) happens to include this entry, then it will cause an error and the message won't be sent. A good line of defense, especially considering the cost is nil.

235. Re: License plate mount for Hamstick?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 13:06:35 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <L16dnSP5SIBZfgOgXTWcog@News.GigaNews.Com>
Source record: 133574

Dennis,

Do you know if suitable mast hardware exists for using this mount with a Halo/Squalo type of antenna for horizontally polarized 6M? I don't see this as being very usefol for a vertically polarized VHF radiator (unless it is used with a mast).

Tam/WB2TT

"Dennis Kaylor" <k4oxg@tampabay.rr.com> wrote in message news:3D9E6D33.4498EC7C@tampabay.rr.com...
> andy
> as i told you when i suggested this mount it comes with the required
> hardware which includes stainless steel bolts to attach the mount and
> license plate you cant use plastic cause it wouldnt hold up to the stress
> of the antenna on it
> if you would pay attention to what these people write to you you may just
> learn something
> i am currently using this mount i suggested to you and it is working
> wonderfully i have used it with a 102" whip a 17 meter hamstick and
> several of the hustler mobile resonators on a 54" mast with no problems
> what so ever
>
> Andy KC2SSB wrote:
>
> > Hello. I am considering a hamstick for 6 meters and someone suggested
> > that I use a license plate mount offered on the hamstick website at
> > http://www.hamstick.com/Tm-1.html. Has anyone ever used one of these
> > mounts? Does it require that you use metal screws on the license plate
> > (I use plastic to prevent rust). Any idea how this will perform with
> > the 6m hamstick compared to a magmounted 1/4 wave on the roof
> > (actually, a 2m 5/8 wave, but used as a 1/4 wave on 6m)?
> > =-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
> > 73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
> > Beachwood, NJ USA Grid FM29vw
> > http://vhfradiobuff.tripod.com
>

236. Re: Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 13:29:37 UTC
From: riffin-rich <riffin-rich@cantspam.me>
Message-ID: <9optpu47836hp2ro9q9pnbdmoea96rbo28@4ax.com>
Source record: 133575

On 05 Oct 2002 04:37:37 GMT, mailfrmpa@aol.com (MailfrmPA) wrote:

>Radio grounded to the chassis? Physical seperation between audio line to the
>cassette deck and the antenna feedline? Any bonding of truck parts to chassis?
>Where is the antenna mounted?
>
>K0MB

Hello Martin. (You sure have a lot of toys in your shack!)

>Radio grounded to the chassis?

No...I did not know I needed to do this but it makes perfect sense!

>Physical seperation between audio line to the cassette deck and the antenna feedline?

Yes...2 feet from the coax and 4-5 feet from the SG-230 coupler's
"hot" output.

>Any bonding of truck parts to chassis?

No...didn't realize this was necessary given there isn't any other
noise. Will doing this fix the problem I described?

>Where is the antenna mounted?

I have a vertical mount setup in the front section of my truck's
bed...the antenna mount sits about 6 inches below the plane of my
cab's top. Radiation starts about 3 inches below the top of the cab
and goes up 9' from there.

Thanks for your time/help!!!

Regards,
Rich, KB2ZMF, Co Springs

237. Re: Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 13:33:54 UTC
From: riffin-rich <riffin-rich@cantspam.me>
Message-ID: <v9qtpukku3mpniod1dsitr6ho7mq99af4c@4ax.com>
Source record: 133576

On Sat, 5 Oct 2002 00:36:20 -0400, "J. Harvey"
<JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote:

>"riffin-rich"
>> subject says it all.
>
>Ferrite cores on the speaker leads, fairly close to the stereo (?).
>
>> Ford F-250 diesel (no ignition noise--SWEET! ;-)
>
>Just the clatter of the diesel... :-)
>

A quick question regarding ferrite cores...where do I find these
things and install them? Is there a particular part number from a
given manufacturer that you'd suggest?

And yes...just the clatter of the diesel...sometimes enough to get
frustrated...especially while driving and talking on the phone. ;-)
On the other hand, that masculine sound just gets my blood
flowing--especially when I have to start her up in the cold Colorado
mornings--to get her warmed up. I'm thinking it gets my neighbors'
blood flowing for at least 3 houses in all directions... ;-)

Take care,
Rich, KB2ZMF, Co Springs

238. Re: Where to get aluminium tubing???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 13:43:30 UTC
From: MW0CDO <gw7lhi@hotmail.com>
Message-ID: <anmq9q$f1i4i$1@ID-117699.news.dfncis.de>
Source record: 133577
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,uk.radio.amateur

"Les Kramer" <wa3sgz@mindspring.com> wrote in message
news:anm969$g9f$1@slb0.atl.mindspring.net...
.
>
> By the way, what's B&Q? In the USA, we add another B (i.e., BBQ) and eat
it
> as chicken, pork or beef.
>
> Regards,
>
> Les Kramer,
>
> WA3SGZ

B&Q = large retailer of DIY materials and tools etc.

Paul MW0CDO.

239. Re: Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 13:47:36 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <T3Cn9.4219$8e7.166509@news20.bellglobal.com>
Source record: 133579

"riffin-rich"
> A quick question regarding ferrite cores...
> where do I find these things and install them?

The type you would probably want is a small split core type that will fit over a single wire. You'll need a handful of them as it might take several per wire to ensure good results.

The wires in your truck probably won't have enough slack to wind around a larger core, but if they do then that would be better (you should check the available slack - it might change your approach if you have an extra foot in the cable bundle near the stereo).

Where to buy ? I dunno but here is a list of vendors...
http://www.google.com/search?q=ferrite+cores
I'm sure that others will help you to find a source and spec a mix.

240. Where to get aluminium tubing???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 13:53:53 UTC
From: Ragnar Otterstad <otterstad@enter.vg>
Message-ID: <anmqoo$ps9$1@oslo-nntp.eunet.no>
Source record: 133578
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,uk.radio.amateur

I have an American beam with a broken boom. For us on the continent it is impossible to get alu.tubing in inches. As everything else is a bit old fashioned in UK, perhaps you even still have tubes in inches so I dont need to get it from USA ???
What say, fellows ?

73 Rag LA5HE/ OZ8RO

241. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 14:03:16 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <iortpukeltpqiu11ihu9pbqceogcv683ic@4ax.com>
Source record: 133580

On Sat, 5 Oct 2002 12:01:01 +0100, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

|Fred Hambrecht wrote:
|>I received an e-mail that had something about a 940 in the subject line,
|>when I opened it it appeared to be a message between K5JOE and another
|>person involved in a trade.
|>
|>It apparently had been used by a third party to spread the W32BugBear virus.

I received a lot of messages that told me I was spreading the virus
via the ARRL mail forwarding site. I DO NOT send mail from there, nor
do I use Microsoft's email program. I also use separate programs for
browsing (Netscape), news (Free Agent) and mail (Eudora), so there is
no sharing of addresses.

My ISP also blocked a number of virus containing messages that
supposedly came from people other than hams.

Symantec's web site has a free tool to determine whether you are
infected and if so, to clean your system. Per their instructions I
ran it twice and was clean. Therefore, I couldn't have been passing
it on.
|
|It had been used by the virus itself. Somebody has been careless or
|naive, but it isn't necessarily any of the people whose names you see.
|
|One of the worst features of these viruses that raid people's address
|lists is the way that relationships get soured by blaming innocent
|parties. So let's not do it.

Right on.

242. Re: License plate mount for Hamstick?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 14:04:51 UTC
From: Dan/W4NTI <w4nti@mindspringnospam.com>
Message-ID: <anmrhsjfr1@slb4.atl.mindspring.net>
Source record: 133581

Careful Dennis...he will threaten you by direct mail next.

Dan/W4NTI

"Dennis Kaylor" <k4oxg@tampabay.rr.com> wrote in message
news:3D9E6D33.4498EC7C@tampabay.rr.com...

> if you would pay attention to what these people write to you you may just
> learn something
>

243. Center Fed Doublet

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 14:07:36 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <ImCn9.50270$VQ2.9849586@twister.midsouth.rr.com>
Source record: 133582

Hello all,

I'm putting up a center fed doublet to cover all frequencies between 3 and 29 MHz. Have several options available and wanted to know which would be the most efficient feed arrangement for my automatic tuner.

1. Tuner at feedpoint with one leg attached to the antenna terminal and the other leg attached to the ground terminal. The tuner is left "floating", not grounded and I assume some type of isolation (ferrite beads) on the coax should be added to prevent a return current on the braid.

2. Fed with autotuner to balun attached to the antenna.

3. Feed the center of the wire with the output from the tuner. (no breaks in the antenna) Am I nuts for even suggesting this one?

4. My favorite - Autotuner at ground level feeding a balun with a short run (less than 30 feet) of ladder line to the antenna.

Thanks,
Ken N4VSD

244. Re: Lazy quad...how to connect feeder?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 14:15:55 UTC
From: Dan/W4NTI <w4nti@mindspringnospam.com>
Message-ID: <anms6kuui1@slb3.atl.mindspring.net>
Source record: 133583

At 6foot above ground you will have a straight up radiator, if you can get it to resonate at all.

I would suggest you use ladder or open wire feed. Run it into the shack to the tuner. Better yet put a balun outside and run the coax into the house into a tuner. Feed it where you feel good.. corner or the middle. Since its horizontal with the other limitations I doubt it would make much difference.

Dan/W4NTI

"Henrik" <henrik> wrote in message
news:3d9ea51b$0$18117$edfadb0f@dspool01.news.tele.dk...
> Hi,
> Have been off the waves for a while, moved to a smaller lot, and wish to
> test a horizontal loop to get on the air, as I understand it is very quiet
> in respect to man made noise, and as I have difficulties with long runs of
> wire....
>
> Thought of making a 40m loop, and hope for some performance also on 80m,
and
> even better on the higher bands, but height over ground is a restriction
> too...so it will be low....say 6 feet above ground.
>
> I want to run coax from my transceiver to the antenna, and find little
help
> in the literature of how to connect the feeder to the loop....any
experience
> out there with you guys?
>
> Does it make sense with the lazy quad, or should I rather go for a
vertical,
> which may also have to stay close to the ground with its feed point? (I
have
> an R5 from previous times, disassembled in the basement)
>
> Tnx in advance,
> 73's
> de OZ6F, Henrik
>
>

245. Re: Singer NM-25T

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 14:25:26 UTC
From: maxshiloh@yahoo.com
Message-ID: <8c7550c8.0210050625.3267aa51@posting.google.com>
Source record: 133584
Cross-posted to:
rec.radio.amateur.antenna,sci.electronics.equipment,misc.industry.electronics.marketplace,alt.ham-radio.marketplace

The price is reduced to $1200.00 and I will pay for any shipping
charges. Photos of the unit can be e-mailed if you are interested.

Thank you.

email address: maxshiloh@yahoo.com

246. Re: Where to get aluminium tubing???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 14:32:41 UTC
From: "Alexander S. Wood" <alec_wood@dont.spam.me.ntlworld.com>
Message-ID: <U%Cn9.7474$h43.76433@newsfep3-gui.server.ntli.net>
Source record: 133588
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,uk.radio.amateur

"Ragnar Otterstad" <otterstad@enter.vg> wrote in message
news:anmqoo$ps9$1@oslo-nntp.eunet.no...
> I have an American beam with a broken boom. For us on the continent it is
> impossible to get alu.tubing in inches. As everything else is a bit old
> fashioned in UK, perhaps you even still have tubes in inches so I dont
need
> to get it from USA ???
> What say, fellows ?
>
> 73 Rag LA5HE/ OZ8RO

While tubing (and wood) is not sold in inches in the UK any more (thanks to those bloody Europeans making it illegal to use non-metric measure in EU states) it is still available, it's just labelled in the metric measure. So inch square tubing is 25mm (nom). The (nom) after the 25mm is for nominal, and allows for the difference between 25mm and one inch. It's a bit hit and miss though. I bought three lengths of inch square aluminium tube for an antenna project and found a pronounced difference in the size of one (bought from another supplier) to the other two.

Metric equivalents of imperial measures are only readily available for those things that were "standard" imperial measures, like 4" water pipe, 2"x4" wood joists etc. Unfortunately these old standards are slowly being eroded in favour of close metric ones. For most imperial measurement, the nearest metric size will usually do the job OK, the difference in size will be less than the usual tolerances accepted in hand measuring and cutting.

Alec Wood M1BNK
Teesside UK

247. How to find out frequency range of an omni antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 14:35:40 UTC
From: Aaron Rogerson <arogerso@bigpond.net.au>
Message-ID: <0NCn9.4393$vg.9919@news-server.bigpond.net.au>
Source record: 133585

I found a rather sturdy vertical antenna at the tip a while back which had a n type female socket for the coax. This lead me to believe that it is for the microwave spectrum. I have 2.4ghz wireless access point for intranet connectivity and was wondering how would I go about testing this antenna and finding out its frequency range? I have it plugged up currently and the signal coming from it at 2.4ghz is good, but Im not entirely sure it was designed for that frequency.
Thanks,
Aaron.

248. Re: License plate mount for Hamstick?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 14:45:37 UTC
From: k9sqg@aol.com
Message-ID: <20021005104537.00932.00009414@mb-fk.aol.com>
Source record: 133586

Andy,

I'd like to hear about the mounts also.

73s,

Evan

249. Re: Lazy quad...how to connect feeder?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 14:47:51 UTC
From: k9sqg@aol.com
Message-ID: <20021005104751.00932.00009416@mb-fk.aol.com>
Source record: 133587

Henrik,

It depends on your needs for local or DX operation. Multiband operation would best be handled by open wire feed with a link coupled tuner, or double balanced tuner, in the shack. Another alternative is to use coax with a 4:1 balun at the feedpoint.

73s,

Evan

250. Re: Threat to worldwide use of 70cm band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 14:59:33 UTC
From: Dwight Stewart <stewart@sc.rr.com>
Message-ID: <B9C47690.B8E9%stewart@sc.rr.com>
Source record: 133591
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

"Richard Clark" wrote:
>
> Such is the personality type that is so willing
> to give away our rights in the name of freedom,
> security, and the american way. Given any success
> in that agenda, the Taliban has already won the
> war even if they lie buried in their caves
> moldering away.

You're preaching to the choir, Richard. I couldn't agree more.

Dwight Stewart (W5NET)

http://www.qsl.net/w5net/

251. Hygain DB-1015 Info Wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 14:59:58 UTC
From: Charley Schwartz <charley@net1plus.com>
Message-ID: <3D9EFE6D.888AC3F4@net1plus.com>
Source record: 133589

I need a manual or an assembly sheet for the Hygain DB-1015 10/15 meter
3 element yagi .. Thanks Charley W1TE

252. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 15:01:04 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <zlumWQAw6vn9EAxx@ifwtech.co.uk>
Source record: 133593

Wes Stewart wrote:
>I received a lot of messages that told me I was spreading the virus via
>the ARRL mail forwarding site. I DO NOT send mail from there, nor do I
>use Microsoft's email program.
[...]
> Therefore, I couldn't have been passing it on.

That's right. The infected computer belonged to someone *else* who just happened to have you on their mailing list.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

253. Re: Threat to worldwide use of 70cm band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 15:02:36 UTC
From: Dwight Stewart <stewart@sc.rr.com>
Message-ID: <B9C47747.B8EB%stewart@sc.rr.com>
Source record: 133590
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

"Fred Hambrecht" wrote:

> Sorry Dwight, it was supposed to read
> "Dwight, he (meaning Berry)
>
> Since my recent stroke, I sometimes get
> my words mixed up. I try to carefully
> read before hitting send. I screwed
> this one up.

Don't worry about it, Fred. I just wish I had such a good excuse for the many screw ups I've made. And thanks for the info about Berry. It helps to know who you're really talking to.

Dwight Stewart (W5NET)

http://www.qsl.net/w5net/

254. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 15:33:32 UTC
From: tmgroatatpeakpeakdotcom
Message-ID: <3d9ef98d.1383891@news.peakpeak.com>
Source record: 133592

Adding on to Roy and Reg's comments, there's one more factor that makes the higher impedance lines better for multi-band antennas.

The antenna feed point impedance of a wire antenna over ground will range from a low near 50 ohms (or less for very low wires) to a high of thousands of ohms. Consider how that high impedance translates through low and high impedance feedlines:

5000 ohm antenna, 50 ohm line, SWR = 100:1. The impedance on the line ranges from 0.5 ohm to 5000 ohms.

Same antenna, 500 ohm line, SWR=10:1. The impedance on the line ranges from 50 ohms to 5000 ohms.

A feedline near the geometric mean of the antenna impedance range has moderate SWR all bands. It prevents very low impedances from occurring anywhere on the line. This reduces I^2R losses, and is less likely to be outside the transmatch's adjustment range.

So to answer your original question: either 450 or 600 ohm line works well with a multi-band wire antenna (and so would 300 ohm line).

--KR0U

255. Re: KENWOOD AT-130 ANTENNA TUNER

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 15:56:35 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <TYDn9.165113$TX5.6706153@news1.east.cox.net>
Source record: 133594

How does that work? Is it an L network? How do they
swap the network for different impedances?

Pete

"AO KD5FXT" <aokd5fxt@aol.com> wrote in message
news:20020930081636.13307.00006040@mb-cn.aol.com...
> Good condition, clean...
>
> http://members.aol.com/aokd5fxt/at130top.JPG
> $110 shipped conus
>
> Bill, KD5FXT

256. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 16:12:43 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ann31qouk1@helle.btinternet.com>
Source record: 133595

> Put this entry into your e-mail program's address book.
> Display Name = *virus_trap
> E-mail address = <illegaladdressxyz
>
> Be sure to include the '*' and the '<'. This new entry should show up at
> the top of the list. If an outgoing e-mail message (as created by a virus
> or worm) happens to include this entry, then it will cause an error and
the
> message won't be sent.

==========

Can't see how the above will work. No virus would be stupid enough to
include that entry.

Or have I missed something ?

Reg.

257. Re: Where to get aluminium tubing???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 16:13:40 UTC
From: Trevor Thompson <trevor@ecosse.net>
Message-ID: <gcEn9.5019$975.274760@newsfep2-win.server.ntli.net>
Source record: 133596
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,uk.radio.amateur

"MW0CDO" <gw7lhi@hotmail.com> wrote in message
news:anmq9q$f1i4i$1@ID-117699.news.dfncis.de...
>
> "Les Kramer" <wa3sgz@mindspring.com> wrote in message
> news:anm969$g9f$1@slb0.atl.mindspring.net...
> .
> >
> > By the way, what's B&Q? In the USA, we add another B (i.e., BBQ) and eat
> it
> > as chicken, pork or beef.
> >
> > Regards,
> >
> > Les Kramer,
> >
> > WA3SGZ
>
> B&Q = large retailer of DIY materials and tools etc.
>
> Paul MW0CDO.

B+Q looks almost identical to your Home Depot or should I say Home DeePo!

Trevor
G6EQP

258. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 16:52:25 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <nf2upukktc0ns80a9k10jie9lctjtivvu7@4ax.com>
Source record: 133597

On Sat, 05 Oct 2002 07:03:16 -0700, Wes Stewart <n7ws@nowhere.com>
wrote:

>|One of the worst features of these viruses that raid people's address
>|lists is the way that relationships get soured by blaming innocent
>|parties. So let's not do it.
>
>Right on.

So let's nail the principle culprit - Windows in whatever form and
design dominated by marketing.

The local (Seattle) paper's business section continues to announce new
major security breaches in MS client and server software. Warnings
have come twice-a-week average for some time now, and weekly for a
year before that.

MS has had major problems with their Passport service revealing
personal data to simple attacks. MS has also lost its third party
designer base to Java or other languages run on Linux. Microsoft's
.NET has failed to attract designers who perceive numerous security
issues.

Chairman Bill pronounced a war on insecure design about a year ago.
Skip forward that same year: low and behold they have a trade show of
their PC of the future (about 5 years away) which reportedly lacks
security features. The artwork shown in the paper features the glazed
expression of the owner sitting about 2 foot back from a 2' X 4'
display curved like a windshield (actually quite radical, about 60ï¿½).
The subtle implication is that the office cubicle will soon shrink to
the size of a desktop holodeck.

I once recall an incident in installing Windows 3. I had already been
a part of the their beta test, so I knew my system was up to the
install. Such smug hubris is inevitably cracked by Microsoft and as
testimony, the installation refused to acknowledge my mouse existed.
It's always the low tech problems that cripple you. Stumped by this
obstacle, I called MS support and we spent an hour re-installing
Windows to arrive at the same report: Mouse does not exist. The tech
asked what kind of mouse I was using. I replied a Microsoft Mouse.
Bingo! The tech dryly reported that Windows did not support my mouse
- and he was right.

73's
Richard Clark, KB7QHC

259. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 17:12:12 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9F1D6C.73FA6FDE@ieee.org>
Source record: 133598

Roy Lewallen wrote:
> I assume that the dielectric loss begins dominating at a lower frequency
> for open wire line than it does for coax, ...

Especially when it's raining. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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260. Re: G5RV, single or double length ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 17:19:56 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9F1F3C.DCFDE058@ieee.org>
Source record: 133602

Thierry wrote:
> There is however one last question : must I buy a full length G5RV
> (102', 31m) or a double size (204' 67m) if I'm first interested in
> DXing in bands from 20m to 10m (mainly in the summer time but of
> course in the lower ones too, 80-40m to 10m, in the winter).

A double-sized G5RV is designed for 40m and also works well on 80m & 160m.
A regular-sized G5RV is designed for 20m and also works well on 40m & 80m.
A half-sized G5RV is designed for 10m and also works well on 20m & 40m.
--
cheers, CAM http://www.qsl.net/w5dxp

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261. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 17:20:11 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <qj7upugahblnq1cl5m8qfvee2ka9m6hgvk@4ax.com>
Source record: 133606

On Sat, 05 Oct 2002 16:52:25 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

>So let's nail the principle culprit - Windows in whatever form and
>design dominated by marketing.

Oh, come on now! Any operating system is susceptible to viruses. It
just so happens that most people are using Windows and therefore if
you were making virus to affect as many users as possible then it
makes good sense that the Windows operating system would be the best
candidate.

Danny

262. Re: Lazy quad...how to connect feeder?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 17:20:25 UTC
From: 'Doc <w5lz@icok.net>
Message-ID: <3D9F1F42.FA28CD31@icok.net>
Source record: 133599

Henrik,
The cinnections are between one end of the loop to the
center conductor, the other end of the loop to the braid.
While loops tend to be 'quieter' than verticals or a
dipole, do not expect it to be very much quieter. The
difference is noticable, but small. With the restrictions
you have as to height, and the use of coaxial feed line,
I think you may be happier with the 'R-5'. Feeding the
loop with 'ladder line' through a tuner would be a 'better'
way of using the loop on other bands than the one it is
designed for. The impedance on other bands is easier to
handle with a tuner and ladder line.
A 40 meter loop on 80 meters, for example, is not a very
satisfactory antenna, no matter what type of feed line is
used. It can be done, though, and naturally, any antenna
is better than none.
Good luck...
'Doc

263. Re: Lazy quad...how to connect feeder?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 17:20:35 UTC
From: 'Doc <w5lz@icok.net>
Message-ID: <3D9F1F4E.B00ABE28@icok.net>
Source record: 133600

Henrik,
The connections are between one end of the loop to the
center conductor, the other end of the loop to the braid.
While loops tend to be 'quieter' than verticals or a
dipole, do not expect it to be very much quieter. The
difference is noticable, but small. With the restrictions
you have as to height, and the use of coaxial feed line,
I think you may be happier with the 'R-5'. Feeding the
loop with 'ladder line' through a tuner would be a 'better'
way of using the loop on other bands than the one it is
designed for. The impedance on other bands is easier to
handle with a tuner and ladder line.
A 40 meter loop on 80 meters, for example, is not a very
satisfactory antenna, no matter what type of feed line is
used. It can be done, though, and naturally, any antenna
is better than none.
Good luck...
'Doc

264. Re: Lazy quad...how to connect feeder?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 17:21:05 UTC
From: 'Doc <w5lz@icok.net>
Message-ID: <3D9F1F6C.D57F3C42@icok.net>
Source record: 133601

Henrik,
The connections are between one end of the loop to the
center conductor, the other end of the loop to the braid.
While loops tend to be 'quieter' than verticals or a
dipole, do not expect it to be very much quieter. The
difference is noticable, but small. With the restrictions
you have as to height, and the use of coaxial feed line,
I think you may be happier with the 'R-5'. Feeding the
loop with 'ladder line' through a tuner would be a 'better'
way of using the loop on other bands than the one it is
designed for. The impedance on other bands is easier to
handle with a tuner and ladder line.
A 40 meter loop on 80 meters, for example, is not a very
satisfactory antenna, no matter what type of feed line is
used. It can be done, though, and naturally, any antenna
is better than none.
Good luck...
'Doc

265. Re: The latest mathematical advances.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 17:22:50 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9F1FEA.A2842021@ieee.org>
Source record: 133603

Dick Carroll wrote:
> Nice rant, Reg, but all too accurate, I'm afraid...my YF spent her
> working career as a 5th grade schoolteacher. Long ago she mentioned,
> much to my surprise, that they no longer taught students to memorize the
> multiplication table. The Education Establishment had decided that such
> rote memorization wasn't proper. It also always surprised me how many
> students arrived at 5th grade level who couldn't read. They usually
> could after she got finished with them, though.

Half of the GED math exam requires the use of a calculator.
--
cheers, CAM http://www.qsl.net/w5dxp

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266. Re: Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 17:34:20 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9F229C.EFD0A548@ieee.org>
Source record: 133604

riffin-rich wrote:
> A quick question regarding ferrite cores...where do I find these
> things and install them? Is there a particular part number from a
> given manufacturer that you'd suggest?

For exactly those type problems, I use Amidon FT-150A-F toroids.
My mobile amplified speaker was noisey during transmit. One of
these toroids cured the problem.
--
cheers, CAM http://www.qsl.net/w5dxp

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267. Re: Center Fed Doublet

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 17:39:57 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9F23ED.C93FC94B@ieee.org>
Source record: 133605

Ken N4VSD wrote:
>
> Hello all,
>
> I'm putting up a center fed doublet to cover all frequencies between 3 and
> 29 MHz. Have several options available and wanted to know which would be
> the most efficient feed arrangement for my automatic tuner.
>
> 1. Tuner at feedpoint with one leg attached to the antenna terminal and the
> other leg attached to the ground terminal. The tuner is left "floating",
> not grounded ...

This is the configuration recommended by SGC for their SG-230 autotuner.
Note the voltage handling properties of that output insulator.
--
cheers, CAM http://www.qsl.net/w5dxp

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268. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 18:16:42 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9F2C8A.A79D7220@ieee.org>
Source record: 133607

Dan Richardson wrote:
>
> On Sat, 05 Oct 2002 16:52:25 GMT, Richard Clark <kb7qhc@attbi.com>
> wrote:
>
> >So let's nail the principle culprit - Windows in whatever form and
> >design dominated by marketing.
>
> Oh, come on now! Any operating system is susceptible to viruses. It
> just so happens that most people are using Windows and therefore if
> you were making virus to affect as many users as possible then it
> makes good sense that the Windows operating system would be the best
> candidate.

Not only Windows, but Microsoft products in general. I use Netscape
4.7 which seems to be relatively immune from viruses designed for
Microsoft products.
--
cheers, CAM http://www.qsl.net/w5dxp

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269. Re: G5RV, single or double length ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 18:30:49 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9F2FD9.9147EE38@ieee.org>
Source record: 133608

Thierry wrote:
> There is however one last question : must I buy a full length G5RV
> (102', 31m) or a double size (204' 67m) if I'm first interested in
> DXing in bands from 20m to 10m (mainly in the summer time but of
> course in the lower ones too, 80-40m to 10m, in the winter).

I just modeled a double-size G5RV using EZNEC. It is a 204 ft dipole fed with 58 ft of 300 ohm twinlead (VF=0.9). As I suspected, the antenna does a good job on 160m, 80m, & 40m. The SWR's on the 50 ohm coax are 4:1 on 1.95 MHz, 4:1 on 4.0 MHz, and 2.4:1 on 7.19 MHz.

SWR on the 50 ohm coax is 15-20:1 for all higher frequency HF bands except 20m where it jumps to 57:1. This is not a good antenna for HF ham frequencies above 7.3 MHz unless one is using a very short run of ordinary coax or very low loss (expensive) coax.

The regular-size G5RV works well on 80m, 40m, 20m, & 12m and marginally on 15m, but the 50 ohm SWR is too high on 30m, 17m, & 10m.

Reg gave some pretty good advice. Put up a 1/2WL resonant dipole on your lowest frequency of interest, feed it with ladder-line, and have an all-HF-band antenna. You may have to adjust the feedline length on certain bands. Such an antenna is presented on my web page and requires no conventional antenna tuner.
--
cheers, CAM http://www.qsl.net/w5dxp

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270. FS: Bird model 43P Peak Reading Wattmeter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 18:52:33 UTC
From: jonweiner@aol.com
Message-ID: <20021005145233.08983.00014055@mb-cg.aol.com>
Source record: 133609

I have for sale a brand new unused Bird model 43P peak reading wattmeter complete with dummy slug, connector caps, and unused original Bird manual. Has standard SO-239 connectors. Price is $330., including shipping (USA).

Jon, K1VVC

271. help needed in notch antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 19:18:12 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0210051118.267c1ed2@posting.google.com>
Source record: 133610

Hi,
I have a problem in notch antenna. I am designing it for 2.4GHz. The length is lambda/4(17) and width is 1mm with a dielectric substrate of 2.2 fed by a microstrip line. Instead of 2.4GHz i am getting match at 1.8GHz. Kindly help me.

Thanks in advance.

272. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 20:29:04 UTC
From: "Dee D. Hays" <dee.hays@sbcglobal.net>
Message-ID: <jYHn9.2402$F53.2338478@newssvr28.news.prodigy.com>
Source record: 133611

If everyone were using Netscape then the virus authors would focus on it.
Netscape has no special immunity other than it is less commonly used.

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3D9F2C8A.A79D7220@ieee.org...
> Dan Richardson wrote:
> >
> > On Sat, 05 Oct 2002 16:52:25 GMT, Richard Clark <kb7qhc@attbi.com>
> > wrote:
> >
> > >So let's nail the principle culprit - Windows in whatever form and
> > >design dominated by marketing.
> >
> > Oh, come on now! Any operating system is susceptible to viruses. It
> > just so happens that most people are using Windows and therefore if
> > you were making virus to affect as many users as possible then it
> > makes good sense that the Windows operating system would be the best
> > candidate.
>
> Not only Windows, but Microsoft products in general. I use Netscape
> 4.7 which seems to be relatively immune from viruses designed for
> Microsoft products.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
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273. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 21:19:14 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <upulqq4al33sce@corp.supernews.com>
Source record: 133612

Are we having problems reading today Ian? I went out of my way not to blame anyone. Please re-read the "third party" part.

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message news:y35GiZGtZsn9EAgV@ifwtech.co.uk...
> Fred Hambrecht wrote:
> >I received an e-mail that had something about a 940 in the subject line,
> >when I opened it it appeared to be a message between K5JOE and another
> >person involved in a trade.
> >
> >It apparently had been used by a third party to spread the W32BugBear virus.
>
> It had been used by the virus itself. Somebody has been careless or
> naive, but it isn't necessarily any of the people whose names you see.
>
> One of the worst features of these viruses that raid people's address
> lists is the way that relationships get soured by blaming innocent
> parties. So let's not do it.
>
> --
> 73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
> Editor, 'The VHF/UHF DX Book'
> http://www.ifwtech.co.uk/g3sek

274. Re: Singer NM-25T

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 21:27:40 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <upumafa2l82n2d@corp.supernews.com>
Source record: 133613
Cross-posted to:
rec.radio.amateur.antenna,sci.electronics.equipment,misc.industry.electronics.marketplace,alt.ham-radio.marketplace

I am not trying to be a smartbutt, but advertise this in the paranormal and
ghost finders type news groups. These guys swear by them to detect spooks...

"max" <maxshiloh@yahoo.com> wrote in message
news:8c7550c8.0210050625.3267aa51@posting.google.com...
> The price is reduced to $1200.00 and I will pay for any shipping
> charges. Photos of the unit can be e-mailed if you are interested.
>
> Thank you.
>
> email address: maxshiloh@yahoo.com

275. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 21:41:25 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3D9F5C85.1A0F387@ieee.org>
Source record: 133614

"Dee D. Hays" wrote:
> If everyone were using Netscape then the virus authors would focus on it.
> Netscape has no special immunity other than it is less commonly used.

I'll gladly take any special immunity for any reason.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

276. Re: Lazy quad...how to connect feeder?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 22:00:34 UTC
From: Henrik <henrik>
Message-ID: <3d9f6101$0$91372$edfadb0f@dspool01.news.tele.dk>
Source record: 133615

Thanks for your comments Dan, Evan and 'Doc...

(erected an inverted V dipole about 10m long on the loft, and hear the 14,1 beacon from Israel even with 0,1w here in Copenhagen at 22:00 UTC. on my PCR-1000)
H.

277. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 22:07:13 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <djoupuc9dc8226j0phl8qkqabp8gg22set@4ax.com>
Source record: 133616

On Sat, 05 Oct 2002 20:29:04 GMT, "Dee D. Hays"
<dee.hays@sbcglobal.net> wrote:

>If everyone were using Netscape then the virus authors would focus on it.
>Netscape has no special immunity other than it is less commonly used.
>

This is denial plain and simple. Those who write viruses can thrive
by this alone.

73's
Richard Clark, KB7QHC

278. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 23:12:59 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3D9F71FB.35D66E90@cwis.net>
Source record: 133617

Reg,
That entry in your address book will stop most
virus programs that use your address book to resend
it's self. That entry, or one simular to it, will
cause your email program to stop for an error, then
notify you that there's a problem. It's still up to
you to 'cure' the problem by running an anti-virus
program or whatever. All the entry does is prevent a
virus from sending email. You still have the virus.
'Doc

279. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 23:26:41 UTC
From: "Dee D. Hays" <dee.hays@sbcglobal.net>
Message-ID: <RyKn9.2423$F53.2354979@newssvr28.news.prodigy.com>
Source record: 133618

No this was not meant to be denial. It was meant to say that if we all switch to Netscape, the problem will come back because now the authors of such viruses will go after it for maximum effectiveness. Switching to Netscape would actually be a form of denial that wouldn't work for long.

I keep my anti-virus software up to date and never open any attachments that I didn't specifically ask for.

"Richard Clark" <kb7qhc@attbi.com> wrote in message news:djoupuc9dc8226j0phl8qkqabp8gg22set@4ax.com...
> On Sat, 05 Oct 2002 20:29:04 GMT, "Dee D. Hays"
> <dee.hays@sbcglobal.net> wrote:
>
> >If everyone were using Netscape then the virus authors would focus on it.
> >Netscape has no special immunity other than it is less commonly used.
> >
>
> This is denial plain and simple. Those who write viruses can thrive
> by this alone.
>
> 73's
> Richard Clark, KB7QHC

280. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-05 23:38:32 UTC
From: mike c <md_removeunderscores_cola@evenlink.com>
Message-ID: <MPG.18094203c1b2ebe29896cd@news.evenlink.com>
Source record: 133519

In article <qj7upugahblnq1cl5m8qfvee2ka9m6hgvk@4ax.com>,
k6mhe@mendolink.com says...
> On Sat, 05 Oct 2002 16:52:25 GMT, Richard Clark <kb7qhc@attbi.com>
> wrote:
>
> >So let's nail the principle culprit - Windows in whatever form and
> >design dominated by marketing.
>
> Oh, come on now! Any operating system is susceptible to viruses. It
> just so happens that most people are using Windows and therefore if
> you were making virus to affect as many users as possible then it
> makes good sense that the Windows operating system would be the best
> candidate.
>
> Danny
>
>
Linux Rules!! any OS may be susceptible, but MS tends to deny there's
a problem at first - like in the case of the Nimda virus - the only
one that comes to mind since i don't have time to read everything.

Per "In The Trenches", a column in Linux Magazine about a year or so
ago, the Linux kernel team, on the other hand, responded to and fixed
a vulnerability within 24 hrs. the problem was brought to their
attention by a programmer who just decided to see what would happen
if he sent a malformed IP header.

I like that story about MS not supporting their own mouse. If that's
true, it's crack addiction at it's finest.

OT:

I just love MS's updates, too. I haven't determined the exact
problem, but between MS IE 5.0 thru 6.0 along with MS Visual Studio.
The latest MSDN library, which is HTML help, doesn't work. But the
MSDN library from years ago does. Well, I guess I don't need all that
.NET BS anyway. Problem is, the new MSDN CD files have an extra link
for API functions that tells you what header to include and what
library to link.

And you can't uninstall IE6.0 to revert. It seems that after updating
IE, a Visual Studio install trashes it with previous IE files. So I
think you have to reinstall the whole OS, Install VS, then do the IE
update because IIRC, the IE update is what got MSDN working again for
me after who knows what trashed it in the first place.

--
Best Regards,
Mike Colasono

Linux - Saving you from the Gates of HELL!

281. Re: W9INN vs. G5RV jr.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 00:17:26 UTC
From: Ed Senior <eseniors@earthlink.net>
Message-ID: <qiLn9.10723$OB5.1083036@newsread2.prod.itd.earthlink.net>
Source record: 133520

Hi Reggie -

It's not clear which W9INN antenna you intended to use in your comparison.
He has a couple of dozen standard models, plus an indeterminate number of
custom variations. His most popular designs are the MPD-5-xx models,
which include 80m. But if you want to compare to a smaller design that
only goes down to 40m, then the SSD-045-xx might be the one. It covers
10m, 15m, 20m, and 40m.

I have an MBD-847 (17m, 40m, and 80m) hung as a LOW inverted vee:
The center is about 28' up, and the ends about 8' up. It's also folded into
a 60-degree vee (ouch!), because that's all the space I have.

It works extremely well on all three bands, notwithstanding the severely
compromised installation. In fact, a net control on one of the big 80m nets
out here said I was so loud I should sign up as one of the net controls!
Maybe he was just trying to share the work, though. ;-)

So if you are correct in accessing the performance of your G5RV Junior
as "lousy" on some bands, then YES, you could expect the corresponding
W9INN to outperform it handily. This would not be surprising, since
the W9INN uses a more complex design, with fanned elements and traps,
to achieve true half-wave resonance on all bands (most models).

"RC" <rcuffee@hotmail.com> wrote in message
news:df27559b.0210031303.543d5309@posting.google.com...
> I currently have a G5RV installed at 35'as an inverted-vee; however,
> it has lousy performance on 10 and 15 meters. Has anyone compared the
> W9INN antenna to the G5RV jr(10 -40 meters? Do you think the W9INN
> dipole will outperform the the G5RV?
>
> Thanks,
>
> Reggie

282. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 00:30:39 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <3D9FAE61.3040103@adelphia.net>
Source record: 133521

Dee D. Hays wrote:

> If everyone were using Netscape then the virus authors would focus on it.
> Netscape has no special immunity other than it is less commonly used.

Yes, yes, yes!

But computer user's mindless insistence that all computers must be running the same software, and that they be running the same essential platform, is just not very clever.

I use Netscape specifically *because* there are not many virii written for it. If so many people switched to Netscape that the bad guys wrote virii for it, I would change to yet another program.

I have to shake my head at all the poor people who insist on using the poorly written (popularity is only one part of the problem) programs, spend much time trying to stay ahead of the bad guys, then inevitably fail.

It doesn't have to be that way.

And I think if people didn't just buy MS software because they are the "standard", that MS might actually have to write better software.

Mike KB3EIA -

283. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 00:34:03 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <3D9FAF43.9010603@adelphia.net>
Source record: 133522

Richard Clark wrote:

> On Sat, 05 Oct 2002 20:29:04 GMT, "Dee D. Hays"
> <dee.hays@sbcglobal.net> wrote:
>
>
>>If everyone were using Netscape then the virus authors would focus on it.
>>Netscape has no special immunity other than it is less commonly used.
>>
>>
>
> This is denial plain and simple. Those who write viruses can thrive
> by this alone.

And HOW! Most people I know think getting infected with virii is a fact
of life. It ain't necessarily so.

- Mike KB3EIA -

284. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 01:31:30 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <7g1vpug5q09baksv9v286v12jgo4q1ps74@4ax.com>
Source record: 133523

On Sat, 05 Oct 2002 23:26:41 GMT, "Dee D. Hays"
<dee.hays@sbcglobal.net> wrote:

>No this was not meant to be denial.

Saying "no" that it is not denial is a classic self-fulfilling
example.

>It was meant to say that if we all
>switch to Netscape, the problem will come back because now the authors of
>such viruses will go after it for maximum effectiveness.

And this is further denial in that Netscape offers no vectors
similarly presented by the Microsoft security lapses. Netscape is not
integrated with the desktop and it is THAT integration that is the
security problem, not any particular or isolated executable. In this
sense denial comes in the form of compartmentalization of the problem
to explain it away, and it is this compartmentalization that leads
exactly to the blindsiding that serve the virus writers so.

It further denies the obvious lack of concern: Microsoft doesn't
perceive this as their problem. This is most obvious when they whine
how it is our fault for poor security settings (it's all there, but we
as customers are just too stupid to configure it correctly). Blame
the customer is poor service and is no defense for doing nothing.

Projecting the problem into terms that Netscape "could be" attacked is
specious. All systems suffer the same potential threat, again, the
survivors already exhibit a solution and the failures exhibit a
problem. Saying the survivors are at risk while holding onto failure
is denial in the extreme.

> Switching to
>Netscape would actually be a form of denial that wouldn't work for long.

This is denial through automatic rejection. I have never suffered any
attack through Netscape and the idea that this will not hold long
simply does not track history nor the respond to the actual evidence
of what fails (MS) and what does not (Netscape).

>
>I keep my anti-virus software up to date and never open any attachments that
>I didn't specifically ask for.

That is commendable, but really only offers virus protection through
autopsy when you should be tackling the problem and not the bug.
Proving you can find the virus in the corpse does not bring vitality

back to the dead. A virus cannot exist when it cannot sustain itself. Microsoft design is chock full of sustaining mechanisms that keep these bugs active. This has been most manifest and reported on a twice weekly basis for the better part of the last year. How many service packs have you downloaded? If your only activity has been confined to picking nits off the crashed system - you have insured your future activities to an endless cycle of repetition.

The simple fact of the matter, already identified and admitted to by Microsoft, is that if you want a secure IE browser, you have to turn off most the features. If you have not done this, you are in denial. I have seen some crow about how they have performed their security settings (which Microsoft implements to default to the most insecure configuration) - and their cozy denial is in ignoring that Microsoft security is broke (as glaringly evidenced by those same twice weekly announcements). It doesn't matter what your settings are anyway, they don't work! Or worse, some work - guess which ones?

Denial is most obvious in users of MSIE when they ignore the hundred-odd reports of security violation (and never perform the fixes), they don't maintain their security settings, and they still run full-featured. This probably covers only 99% of the Windows user population. Only Anderson bookkeeping could turn this into a positive reading - and to the same results, catastrophic failure guaranteed.

73's
Richard Clark, KB7QHC

285. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 01:39:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <upv52jhhlv5o7b@corp.supernews.com>
Source record: 133524

A lot of the common viruses get addresses from the victim's address book to send copies of the virus to. They fake the headers to conceal the real source of the message, in a manner similar to that used by spammers. Often, the "From:" portion of the header contains the email address of someone else fished from the victim's address book, and other than that, bears no relationship to the unwitting owner of the machine sending the virus.

There are several things everyone can do to reduce the spread of these viruses. One is to prevent yourself from getting infected. NEVER open an email attachment unless you know for certain what it contains. If you're in doubt, email the sender for confirmation before you open it. Also, in your web browser options, make sure that JavaScript is turned off for email and newsgroups. This prevents an email message from inserting a virus even without your even opening an attachment. Careful users also turn off JavaScript for web browsing, and turn it on only when needed and when visiting trusted sites.

Today's anti-virus software can be set to scan email messages before you open them and alert you if a virus is detected. Get and use an anti-virus program, and keep it updated with the latest definitions. Do a full virus scan regularly. Two of the most popular are Norton and McAfee.

Another step to take is to install a firewall that monitors both incoming and outgoing Internet activity. There are many "back doors" into your system. Hackers can use these to implant software on your system without your knowledge that can be used for spreading viruses, sending spam, launching denial-of-service attacks, or acting as a remotely-controlled computer for any purpose. People with DSL or other high speed connections are much more vulnerable to "back door" entry, but even modem-connected users can be victims. A firewall that monitors outgoing activity will detect when an implanted virus or other pernicious software attempts to transmit, so is an added line of defense. A number of good firewalls are available. One of the better ones is free, so no one should be without one. You can get the free version of ZoneAlarm at http://www.zonelabs.com/store/content/home.jsp.

When you do receive email with a suspect attachment, you can help prevent its further spread by notifying the sender. Remember, the real sender probably isn't the person shown in the "From:" or "Reply-To:" lines of the header. But there's a great service called SpamCop that can go through a header and identify the actual sending ISP, even when the header has been faked. To use SpamCop, go to http://spamcop.net, then click "Overview of Services" under "Services", and register for the free service. Once you're signed up for the free service, use your browser to

view the email message source, which shows the entire message including the header. Select and copy this entire message to the Windows Clipboard. Paste it into the SpamCop window and have it analyze the message. When it's finished, the first reporting suggestion will be the source of the message. BUT DON'T USE SPAMCOP TO REPORT THE VIRUS -- IT SHOULD ONLY BE USED FOR REPORTING SPAM. Record the suggested reporting address, and click "Cancel". Then compose an email message to the reporting address. Explain that the email message contains a virus, and ask that the ISP notify the individual sender (which they, but not you, can identify) that he's sending a virus. Include in your message the entire email message you received, including the full header. (This is the same thing you pasted into the SpamCop window.) The header is vital, since it's what the ISP will use to determine the individual sender.

And now that you've signed up for SpamCop, you can do us all a favor by using it to report all the spam you receive.

Folks, it's the Wild West out here in cyberspace. There're no lawmen looking out for you, so you've gotta wear your own six-gun. And never sit at the bar with your back to the door.

Roy Lewallen, W7EL

286. FS r Trade HG-37 tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 02:09:16 UTC
From: wb4una@aol.com
Message-ID: <20021005220916.15152.00009512@mb-fy.aol.com>
Source record: 133525

this is a 38' crank up tower..i have the gin pole to tilt it over also..I will sell it for 800.00 or trade it for a new model hf radio..what do you have to trade..?let talk..

Randy wb4una

ARS: WB4UNA
Randy Chavis
247 Goff Court
West Columbia
S.C. 29172

287. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 02:21:02 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ano6md$3i1$1@paris.btinternet.com>
Source record: 133526

As it's taken 15 or 20 years to write Windows it will take another 15 or 20 years to re-write it.

The Internet must eventually be placed under internationally agreed control in order to eliminate virus's and spam.

Unfortunately this means Big Brother.

==========

> And I think if people didn't just buy MS software because they are the
> "standard", that MS might actually have to write better software.

288. Re: Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 02:29:50 UTC
From: mailfrmpa@aol.com
Message-ID: <20021005222950.15697.00007601@mb-cv.aol.com>
Source record: 133527

If the ferrites don't do the job, try to get the antenna to the back of the truck, at least temporarily for a test. You may have fundamental overload and/or rectification happening because the stereo is in the near-field/max rf from the antenna. Physical seperation might help.

I can't use 17m in my Jeep without the automatic tranny shifting gears on cw.

K0MB

289. Re: License plate mount for Hamstick?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 02:46:29 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3D9FA374.B024FCB@tampabay.rr.com>
Source record: 133528

hey tam
this thing was designed more for HF and 6 meter hamsticks
i have not seen anyhting like what you are asking about
i used it with a 102 inch whip for 10 meters and all of the hustler resonators on the 54 in mast
but that entire mast resonates i believe not justb the tip so if you took one of hustlers M0-1 54 in masts and attached a halo i think it would mess up its pattern

Tarmo Tammaru wrote:

> Dennis,
>
> Do you know if suitable mast hardware exists for using this mount with a
> Halo/Squalo type of antenna for horizontally polarized 6M? I don't see this
> as being very usefol for a vertically polarized VHF radiator (unless it is
> used with a mast).
>
> Tam/WB2TT
>
> "Dennis Kaylor" <k4oxg@tampabay.rr.com> wrote in message
> news:3D9E6D33.4498EC7C@tampabay.rr.com...
> > andy
> > as i told you when i suggested this mount it comes with the required
> > hardware which includes stainless steel bolts to attach the mount and
> > license plate you cant use plastic cause it wouldnt hold up to the stress
> > of the antenna on it
> > if you would pay attention to what these people write to you you may just
> > learn something
> > i am currently using this mount i suggested to you and it is working
> > wonderfully i have used it with a 102" whip a 17 meter hamstick and
> > several of the hustler mobile resonators on a 54" mast with no problems
> > what so ever
> >
> > Andy KC2SSB wrote:
> >
> > > Hello. I am considering a hamstick for 6 meters and someone suggested
> > > that I use a license plate mount offered on the hamstick website at
> > > http://www.hamstick.com/Tm-1.html. Has anyone ever used one of these
> > > mounts? Does it require that you use metal screws on the license plate
> > > (I use plastic to prevent rust). Any idea how this will perform with
> > > the 6m hamstick compared to a magmounted 1/4 wave on the roof
> > > (actually, a 2m 5/8 wave, but used as a 1/4 wave on 6m)?
> > > =-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
> > > 73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)

> > > Beachwood, NJ USA Grid FM29vw
> > > http://vhfradiobuff.tripod.com
> >

290. Re: G5RV, single or double length ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 03:05:03 UTC
From: Roger Appleby <rappleby@ihug.co.nz>
Message-ID: <ano9d4eko1@lust.ihug.co.nz>
Source record: 133529

I would echo the feeling of at least one other reply in that get rid of the
G5RV thoughts and go for a centre-fed dipole with open wire feeder.
I started with a G5RV (1/2 length) and it worked very well on 20m but on
other bands not so well.
I then converted it to 66ft overall length (2 x 33 ft) and fed it with 450
ohm open wire feeder. The feeder length shouldn't be important but it is in
my configuration..it's about 10m in length. This is then tuned by a MFJ941
into the internal 4:1 balun.
It works very well on 40m, 20m,17m and 15m and reasonably well on 12m and
10m when things are happening.
But as echoed...experiment as your surroundings will also come into play and
may influence one set-up more than another!
Good luck!
Roger
ZL4AFM.

"Thierry" <lombryt@hotmail.com> wrote in message
news:db35a0c.0210041802.2a8d@posting.google.com...
> Hi,
>
> After have discussed and questioning many readers of this forum these
> last weeks about the buying of a vertical vs a dipole for DXing and
> mainly listening purposes (and very soon to TX I hope), from your
> comments and the ones of a french forum I am happy to tell you I
> decided to buy... a G5RV, at last !,
> and FYI from http://www.antennasmore.com/g5rv.htm , as it seems to
> display the best quality and e elelnts reviews on eham website.
>
> This is not a very original announcement but at least I could now do
> some comparisons between performances of this dipole, my ALA-330 mag
> loop and my 40m longwire.
>
> There is however one last question : must I buy a full length G5RV
> (102', 31m) or a double size (204' 67m) if I'm first interested in
> DXing in bands from 20m to 10m (mainly in the summer time but of
> course in the lower ones too, 80-40m to 10m, in the winter).
>
> 200' is rather long, even if I can fold it a bit in inverted V if I
> attach it to a pintree or to mast I could install on my roof top
> (chemny). But don't you think that length could be intersted to get
> more low angles and narrower lobes ?
>
> Theoretically what are really the benefits of using such a long dipole
> vs the 100' version ?,

> And practically is there really a difference (a boom of the S-meter ?,
> lower noise, probably not...) with the 100' v ?
> At last is there a benefit of using the 200' if one day I have to fold
> it or to give it a shape in zig-zag (shape of W as seen from above) if
> there is a lack of place ?
>
> Thanks for your comments
>
> 73
> Thierry
> ONL5183
> http://www.astrosurf.com/lombry/menu-qsl.htm

291. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 03:07:31 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <3D9FD33A.3090203@adelphia.net>
Source record: 133532

Reg Edwards wrote:

> As it's taken 15 or 20 years to write Windows it will take another 15 or 20
> years to re-write it.

Doesn't need re-written. Needs discarded and something else put in its place.

I was aware of this years ago when I started in computers with an Amiga, and learned enough that the "standard" system was broken. We've "improved" that broken system through the years, mostly with faster and faster processors, but it's still broken. As some in the States say, "You can't polish a turd!" ;^)

> The Internet must eventually be placed under internationally agreed control
> in order to eliminate virus's and spam.

This is what some would have you believe. Unneeded "features" that expose the innards of your computer to outside manipulation automatically place it in a vulnerable position.

Lets look at a "feature". Someone decided that it was too much trouble to type your credit card info into a web page when you were trying to buy software or whatever over the web. So they come up with a whiz-bang system to store your info on your computer, or even better on *their* server. Sounds good.

Problem is that for people who do coding, it isn't all that difficult to get into either your computer or theirs to find this out. Not to mention, it isn't too good to trust your cc information to be sitting on a server.

Now it is very true that we have to give out our number from time to time over the phone or an encrypted web page. Those are fairly safe tho'. Having it sitting there on a server is like dangling a big fat carrot in front of the hacker bunnies. and there is the difference.

- Mike KB3EIA -

292. removing busted bolts from bottom of tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 03:12:51 UTC
From: Dave Benham <dodgeboy@mindspring.com>
Message-ID: <ano9k7$j9d$1@nntp9.atl.mindspring.net>
Source record: 133530

I picked up an old tower that was probably originally designed for TV, CB or very light ham use. It's aluminum and all the cross braces are put together with bolts and nuts, not welded. At the bottom of the lower section there are two holes in each leg. Two legs have these holes lined up on the same axis, so those legs can be bolted to the base and the tower walked up and the final leg bolted in. All I wanted it for was as a way to raise an R7 up higher.

My problem is that two of these total of six holes have broken off bolts inside them. The bolts are broken flush with the tower leg so there's nothing to grab onto. The bolts are steel and they pass through some sort of reinforcement metal inside the tube of the leg -- I'm not sure what this material is. I've drilled holes in them and tried an easy-out -- no luck whatsoever. They don't budge. From the appearance of the other clear holes, I don't believe these broken bolts are threaded through the holes -- there may be threads on the bolts, but not in the female portion it passes through. I've applied heat with a fine tipped OA torch with no luck -- that's tricky because of the nearby aluminum -- too much heat and there goes the tower leg, so I may not have applied enough heat. I also tried Liquid Wrench -- no luck.

My holes in these bolts are not perfectly on center, so it would be almost impossible for me to drill out the bolts without enlarging and elongating the hole itself. In fact, one of the bolts is so hard that I can't get a drill to pass through it. The bit just spins. I resharpened the bit, and still no luck. I got a good way in from both sides of this bolt, but there is some sort of hard spot in the center that I can't get through.

I am about to cut off the bottom 4" of each leg and start over, but then I'd be faced with drilling the holes on the 2 legs perfectly in line which would be very difficult "in the field" (the tower won't fit in my basement where the drill press is!).

Any ideas?

Thanks.

Dave K8TRF

293. Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 03:22:59 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <CIKcnSr07szkJD2gXTWcqg@News.GigaNews.Com>
Source record: 133531

Is there any information available regarding the analysis of the
Screwdriver type of antenna some where? For example how much does the
loading coil contribute to the total antenna radiation, the radiation
resistance of the loading coil, the skin effect losses etc.

--
Leland C. Scott
KC8LDO

ARRL Member
NCI Member

294. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 04:00:27 UTC
From: Tom Smith <end@spam.com>
Message-ID: <anoci3$9h$1@slb4.atl.mindspring.net>
Source record: 133533

About 10 months ago I saw an email in my inbox with a subject line having to do with coax---Coax Loss---or some such topic. I was very alarmed when I saw it and suspected it to be a virus---I had no memory of participating in that thread of discussion. I suspected it originated from this newsgroup whereupon I attempted to find the message in the archive before doing anything else. I found the thread and it all seemed harmless---just a short, routine discussion on some aspect of coax. My memory was correct, I had not submitted to the thread---as a matter of fact, I think I even left the newsgroup before the discussion took place.

I figured I would open the email---WRONG! I loaded my system with a Trojan horse and a virus that started to send out emails to my friends and folks I never heard of before. Thankfully, a number of those recipients emailed back telling me that I had a virus---I shut down the system. Odd I thought, I don't even have an address book---I type in the addresses manually on the emails I send and I keep my folders cleared of accumulating emails.

I wondered why I got this email/virus in the first place. Studying the thread I found only one commonality---Reg Edwards had responded to the 'Coax' thread and I sent a personal email to Reg about a year and half ago (well before the thread). I suspect in some way this was the path the virus took to my computer---NO BLAME IS BEING PLACED ON REG FOR THE VIRUS. With the help of a specialist at the university we analyzed the key logger.

Reg Edwards <g4fgq.regp@btinternet.com> wrote in message
news:ano6md$3i1$1@paris.btinternet.com...
> As it's taken 15 or 20 years to write Windows it will take another 15 or
20
> years to re-write it.
>
> The Internet must eventually be placed under internationally agreed
control
> in order to eliminate virus's and spam.
>
> Unfortunately this means Big Brother.
>
> ==============================
>
> > And I think if people didn't just buy MS software because they are the
> > "standard", that MS might actually have to write better software.
>
>
>

295. Re: removing busted bolts from bottom of tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 04:12:11 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <anod6r$342$0@208.206.142.89>
Source record: 133534

Dave Benham wrote:
>
> I picked up an old tower that was probably originally designed for TV, CB or
> very light ham use. It's aluminum and all the cross braces are put together
> with bolts and nuts, not welded. At the bottom of the lower section there
> are two holes in each leg. Two legs have these holes lined up on the same
> axis, so those legs can be bolted to the base and the tower walked up and
> the final leg bolted in. All I wanted it for was as a way to raise an R7 up
> higher.
>
> My problem is that two of these total of six holes have broken off bolts
> inside them. The bolts are broken flush with the tower leg so there's
> nothing to grab onto. The bolts are steel and they pass through some sort
> of reinforcement metal inside the tube of the leg -- I'm not sure what this
> material is. I've drilled holes in them and tried an easy-out -- no luck
> whatsoever. They don't budge. From the appearance of the other clear
> holes, I don't believe these broken bolts are threaded through the holes --
> there may be threads on the bolts, but not in the female portion it passes
> through. I've applied heat with a fine tipped OA torch with no luck --
> that's tricky because of the nearby aluminum -- too much heat and there goes
> the tower leg, so I may not have applied enough heat. I also tried Liquid
> Wrench -- no luck.
>
> My holes in these bolts are not perfectly on center, so it would be almost
> impossible for me to drill out the bolts without enlarging and elongating
> the hole itself. In fact, one of the bolts is so hard that I can't get a
> drill to pass through it. The bit just spins. I resharpened the bit, and
> still no luck. I got a good way in from both sides of this bolt, but there
> is some sort of hard spot in the center that I can't get through.
>
> I am about to cut off the bottom 4" of each leg and start over, but then I'd
> be faced with drilling the holes on the 2 legs perfectly in line which would
> be very difficult "in the field" (the tower won't fit in my basement where
> the drill press is!).
>
> Any ideas?
>

Have you tried blocking the tower leg off the ground and driving them
out with a hammer and a punch just smaller than the bolt diameter?
Sometimes a soft but sharp blow is needed to loosen 'frozen' bolts. Of
course care must be taken to keep from damaging the aluminum, and that
may be the catch here.

Dick

296. Re: Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 04:21:57 UTC
From: riffin-rich <riffin-rich@cantspam.me>
Message-ID: <9fevpugj5cif6qtvtngab2mrcki8gojb1q@4ax.com>
Source record: 133535

On Sat, 05 Oct 2002 12:34:20 -0500, CAM <Cecil.A.Moore@ieee.org>
wrote:

>riffin-rich wrote:
>> A quick question regarding ferrite cores...where do I find these
>> things and install them? Is there a particular part number from a
>> given manufacturer that you'd suggest?
>
>For exactly those type problems, I use Amidon FT-150A-F toroids.
>My mobile amplified speaker was noisey during transmit. One of
>these toroids cured the problem.

CAM, where do you get the Amidon FT-150A-F toroids? And what exactly
do they look like? do you have to cut a wire and wrap it or do these
things just slip over the wire? Where did you put them? One on each
of the two wires going to the speaker? Or one per pair of wire?
Thx...

Regards,
Rich, KB2ZMF, Co Springs

297. Re: Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 04:33:11 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <upvf8a21ebkm1a@corp.supernews.com>
Source record: 133536

SME member as well?

"Leland C. Scott" <no-spam@junk-mail.net> wrote in message
news:CIKcnSr07szkJD2gXTWcqg@News.GigaNews.Com...
> Is there any information available regarding the analysis of the
> Screwdriver type of antenna some where? For example how much does the
> loading coil contribute to the total antenna radiation, the radiation
> resistance of the loading coil, the skin effect losses etc.
>
>
> --
> Leland C. Scott
> KC8LDO
>
> ARRL Member
> NCI Member
>
>

298. RFI problem with TOUCH SWITCH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 04:54:57 UTC
From: Leland Cox <lcox107@comcast.net>
Message-ID: <3D9FC221.5030803@comcast.net>
Source record: 133537

My wife has several lamp s with touch switches. When I try to transmit on HF with even low power, the lamps switch on and off!

I am using an Icom 706 Mk2G. I had a TVI problem on 2M and 440 but found a bad cable causing that problem.

I have a bunch of ferrite chokes on the power wire for these lamps. Not much help!

No problem on the dummy load!

Anyone have an answer to this problem other than removing the touch switches or divorcing the XYL?

Les, AA4F

299. Re: RFI problem with TOUCH SWITCH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 05:20:47 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3D9FC82F.282B818D@cwis.net>
Source record: 133538

Les,
The capacitive circuit the 'touch' lamps use makes
a fantastic all band antenna! Unfortunately, without
a lot of work in the lamp, there isn't much you can do.
The chokes, as you found out, won't help at all. There
was an article about 'touch' lamps in one of the mafazines
a while back, sorry, I have no idea which one. Not a lot
of help, huh?
'Doc

300. Re: removing busted bolts from bottom of tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 05:29:28 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3D9FCA38.9D68FEC3@cwis.net>
Source record: 133539

Dave,
I think you may be on the right track by cutting the
legs off. It may be easier to make a base plate that
will bolt to the shortened tower section to act as the
hinge. It shouldn't be that difficult to make the base
in such a way that the holes in the tower legs can be
drilled using the base plate as a template.
'Doc

301. Re: Antennas and MORE CD: FS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 05:40:37 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3D9FCCD5.1DEEED42@cwis.net>
Source record: 133540

George,
Could you maybe throw in a set of gensu knives, or
a 'flo-bee', how about a 'pocket-fisherman'?
'Doc

302. Re: RFI problem with TOUCH SWITCH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 06:14:58 UTC
From: George Kinzer <horseflygk@worldnet.att.net>
Message-ID: <CxQn9.7931$ue4.338440@bgtnsc04-news.ops.worldnet.att.net>
Source record: 133541

no help..

--
If first you don't succeed, do the same thing again...see what happens

�.��� ��)) -:�:-
�.�� .����))
George Kinzer
((��.�� ..��
-:�:- ((��
�.�

Those who want to be successful, will find a way,
those that don't, will find an excuse!

303. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 08:04:44 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <a018i2Cc6+n9EAll@ifwtech.co.uk>
Source record: 133546

Roy Lewallen wrote:
>
>And now that you've signed up for SpamCop, you can do us all a favor by
>using it to report all the spam you receive.
>
>Folks, it's the Wild West out here in cyberspace. There're no lawmen
>looking out for you, so you've gotta wear your own six-gun. And never
>sit at the bar with your back to the door.
>
Please be careful about using SpamCop as your bodyguard - it's too trigger-happy, and some of the ricochets can come right back at you.

One of the things SpamCop can do is block mail from IP addresses that have been used for spamming. "Great!" you say... but what actually happens?

If some idiot tries to use *your* ISP to send spam, your ISP can only shut them down after the offence has been committed (or is in progress). Some spam will get out, and if SpamCop notices, it will then target *all* mail from the offending IP address. But that address is usually an outgoing mail server which is being shared among all of your ISP's customers - including *you*.

So any of *your* outgoing messages that happen to be routed through that server will not reach anyone who is "protected" by SpamCop. It takes several days before a timer inside SpamCop graciously decides to "forgive" your ISP.

IMO, this particular cure is worse than the original problem.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

304. Re: Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 10:45:53 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <anp490$1k0$1@helle.btinternet.com>
Source record: 133542

Leland wrote
> Is there any information available regarding the analysis of the
> Screwdriver type of antenna some where? For example how much does the
> loading coil contribute to the total antenna radiation, the radiation
> resistance of the loading coil, the skin effect losses etc.
==========

Hello Leland,

At HF, loading coils contribute towards total radiation in direct proportion to their length. Or, if you like, height.

The following programs take length of loading coils, and current distribution versus length, into account in their analyses. Skin and proximity effect is taken into account by entering coil Q. Coil Q can be estimated with sufficient accuracy by using program SOLNOID2.

Download in a few seconds programs HELICAL3, VERTLOAD, LOADCOIL. All deal with short, loaded, vertical antennas, either in back yards or vehicle mounted. They will tell you most of what you want to know except the radiating pattern of short verticals which everybody knows already.

Between them they differ mainly in what data is input and what is output.

Enter dimensions of your antenna to obtain radiating performance estimates, feedpoint impedance, etc. Sometimes tuner L and C values. "What if ?" data entry.

==========
Regards from Reg G4FGQ
Free Radio Design Software
Go to http://www.g4fgq.com
==========

305. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 11:20:31 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <anp69o07hi@enews1.newsguy.com>
Source record: 133543

sorry, but with klez or bugbear it won't work. those viruses don't just use your address book, they raid other files that have addresses in them. they also run their own smtp engine that bypasses your own mail software so it won't stop just because you try to bugger up your address book. this worked on some of the early mass mail viruses but this 'fix' has been so well publisized that any virus writer out there is sure to have bypassed it by now.

"'Doc" <w5lz@cwis.net> wrote in message news:3D9F71FB.35D66E90@cwis.net...
> Reg,
> That entry in your address book will stop most
> virus programs that use your address book to resend
> it's self. That entry, or one simular to it, will
> cause your email program to stop for an error, then
> notify you that there's a problem. It's still up to
> you to 'cure' the problem by running an anti-virus
> program or whatever. All the entry does is prevent a
> virus from sending email. You still have the virus.
> 'Doc

306. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 11:28:47 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <anp6p80851@enews1.newsguy.com>
Source record: 133544

these virus don't just work on your address book, they take addresses out of mail you have sent or received. so all it takes is for someone who has received the messages from the group, read a newsgroup, or in any other way has your address on their computer and the virus will use it. worse yet, they randomly select not only the 'to' address which sent it to you, but also the 'from' address so you can't tell who it is coming from, and this bugbear apparently copies subjects and snippets out of other messages to make them look more realistic.

the best defense against these virii i have seen is to have an isp that scans mail before it even gets to you. my current isp updates their virus scan lists like every hour or so, my virus software hasn't seen a virus come in for a year or more now. all i get are these messages saying the contents were infected and removed.

"Tom Smith" <end@spam.com> wrote in message
news:anoci3$9h$1@slb4.atl.mindspring.net...
> About 10 months ago I saw an email in my inbox with a subject line having
to
> do with coax---Coax Loss---or some such topic. I was very alarmed when I
> saw it and suspected it to be a virus---I had no memory of participating
in
> that thread of discussion. I suspected it originated from this newsgroup
> whereupon I attempted to find the message in the archive before doing
> anything else. I found the thread and it all seemed harmless---just a
> short, routine discussion on some aspect of coax. My memory was correct,
I
> had not submitted to the thread---as a matter of fact, I think I even left
> the newsgroup before the discussion took place.
>
> I figured I would open the email---WRONG! I loaded my system with a
Trojan
> horse and a virus that started to send out emails to my friends and folks
I
> never heard of before. Thankfully, a number of those recipients emailed
> back telling me that I had a virus---I shut down the system. Odd I
thought,
> I don't even have an address book---I type in the addresses manually on
the
> emails I send and I keep my folders cleared of accumulating emails.
>
> I wondered why I got this email/virus in the first place. Studying the
> thread I found only one commonality---Reg Edwards had responded to the
> 'Coax' thread and I sent a personal email to Reg about a year and half ago
> (well before the thread). I suspect in some way this was the path the

virus
> took to my computer---NO BLAME IS BEING PLACED ON REG FOR THE VIRUS. With
> the help of a specialist at the university we analyzed the key logger.
>
>
> Reg Edwards <g4fgq.regp@btinternet.com> wrote in message
> news:ano6md$3i1$1@paris.btinternet.com...
> > As it's taken 15 or 20 years to write Windows it will take another 15 or
> 20
> > years to re-write it.
> >
> > The Internet must eventually be placed under internationally agreed
> control
> > in order to eliminate virus's and spam.
> >
> > Unfortunately this means Big Brother.
> >
> > ==============================
> >
> > > And I think if people didn't just buy MS software because they are
the
> > > "standard", that MS might actually have to write better software.
> >
> >
> >
>
>

307. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 12:55:35 UTC
From: K7JEB <k7jeb@arrl.no_spam.net>
Message-ID: <bpWn9.8255$ue4.363025@bgtnsc04-news.ops.worldnet.att.net>
Source record: 133545

W7EL:
> Folks, it's the Wild West out here in cyberspace.
> There're no lawmen looking out for you, so you've
> gotta wear your own six-gun. And never
> sit at the bar with your back to the door.

Or find yoreself holdin' aces and eights.

K7JEB

308. Re: Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 14:01:56 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA04254.7BB3E62E@ieee.org>
Source record: 133547

riffin-rich wrote:
> CAM, where do you get the Amidon FT-150A-F toroids?

http://www.amidon-inductive.com/

> And what exactly
> do they look like? do you have to cut a wire and wrap it or do these
> things just slip over the wire? Where did you put them? One on each
> of the two wires going to the speaker? Or one per pair of wire?

OD = 1.5", ID = 0.75", Hgt = 0.5" typical toroid

How you wrap them depends on whether it is a differential problem or
a common-mode problem. Most problems are common-mode. I put about
ten turns of speaker wire on the toroid, then cut the original speaker
wires and crimp the choke into the circuit close to the speaker
using automotive butt terminal lugs.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

309. OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 14:42:32 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <2si0qu0vej2q6ckmkv2j24ik7svohbbovp@4ax.com>
Source record: 133548

Sorry to be OT but since there are a lot of computer savvy folks here I figured I'd ask a few questions here instead of some group where I would be a newbie.

Is there any compelling reason to migrate to XP (pro) from Win98? I'm in the process of "upgrading" but I feel "degraded" instead.

Note: "Stability" is not a compelling reason. The latest example I observed of superior stability was when the XYL asked me to drive her someplace and I told XP to shut down the computer. It dutifully popped up a screen that said "Windows shutting down" so I left. When I returned four hours later, it was still "shutting down." But maybe that's what Bill Gates means by stable.

Half of my software doesn't work with XP, and of the half that does often I have to install it twice on the two "virtual machines" that I've tried to set up.

I used windows update to install Service pack 1, which only took four hours to download and install and it appears that if I blow away the operating system and want to reinstall it I get to do the four hour drill again because the service pack wasn't actually placed on my hard drive for backup.

I put this on a new hard drive, which I partitioned into two logical drives. According to the best info I could find I first installed Win98 on one partition, then XP on the other. XP then made a boot.ini file that is supposed to allow dual booting. Not on your life.

I previously used Zone Alarm with Win98. Is the XP "firewall" adequate or do I need Zone Alarm too?

I seem to be spending half of my waking hours maintaining a computer, which is supposed to be a tool, not an avocation.

Should I buy a Mac?

73,

Wes

310. Re: removing busted bolts from bottom of tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 14:46:57 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210060646.769b6e69@posting.google.com>
Source record: 133549

"Dave Benham" <dodgeboy@mindspring.com> wrote in message
news:<ano9k7$j9d$1@nntp9.atl.mindspring.net>...
> I picked up an old tower that was probably originally designed for TV, CB or
> very light ham use. It's aluminum and all the cross braces are put together
> with bolts and nuts, not welded. At the bottom of the lower section there
> are two holes in each leg. Two legs have these holes lined up on the same
> axis, so those legs can be bolted to the base and the tower walked up and
> the final leg bolted in. All I wanted it for was as a way to raise an R7 up
> higher.
>
> My problem is that two of these total of six holes have broken off bolts
> inside them. The bolts are broken flush with the tower leg so there's
> nothing to grab onto. The bolts are steel and they pass through some sort
> of reinforcement metal inside the tube of the leg -- I'm not sure what this
> material is. I've drilled holes in them and tried an easy-out -- no luck
> whatsoever. They don't budge. From the appearance of the other clear
> holes, I don't believe these broken bolts are threaded through the holes --
> there may be threads on the bolts, but not in the female portion it passes
> through. I've applied heat with a fine tipped OA torch with no luck --
> that's tricky because of the nearby aluminum -- too much heat and there goes
> the tower leg, so I may not have applied enough heat. I also tried Liquid
> Wrench -- no luck.
>
> My holes in these bolts are not perfectly on center, so it would be almost
> impossible for me to drill out the bolts without enlarging and elongating
> the hole itself. In fact, one of the bolts is so hard that I can't get a
> drill to pass through it. The bit just spins. I resharpened the bit, and
> still no luck. I got a good way in from both sides of this bolt, but there
> is some sort of hard spot in the center that I can't get through.
>
> I am about to cut off the bottom 4" of each leg and start over, but then I'd
> be faced with drilling the holes on the 2 legs perfectly in line which would
> be very difficult "in the field" (the tower won't fit in my basement where
> the drill press is!).
>
> Any ideas?

Any way to keep the tower cool while you torch the bolts out? Try
wrapping wet rags on all the nearby metal as close the the bolts as
you can get. That "should" keep it cool enough to keep from melting if
you work fast. I'd get everything wrapped in wet rags/towels, and
blast it out with the torch. A cutting tip would help, but if you
don't have one, just crank up the oxygen when it's red hot and you are
ready to blast it out. If that doesn't work, you may have to cut the

legs off.
MK
>
> Thanks.
>
> Dave K8TRF

311. Re: RFI problem with TOUCH SWITCH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 14:54:01 UTC
From: Robert Fanfant <fanfant1@attbi.com>
Message-ID: <d8Yn9.59363$xI5.11806@sccrnsc02>
Source record: 133550

QST had an article that an individual wrote how he solved this problem. It was about 3 to 4 years ago so you should be able to go the the ARRL site and search on "touch lamp" and capacitor. The solution was to put add a capcitor to the input power and switch.

"George Kinzer" <horseflygk@worldnet.att.net> wrote in message news:CxQn9.7931$ue4.338440@bgtnsc04-news.ops.worldnet.att.net...
> no help..
>
> --
> If first you don't succeed, do the same thing again...see what happens
>
> ?.??? ?)) -:?:-
> ?.?? .????))
> George Kinzer
> ((??.?? ..??
> -:?:- ((??
> ?.?
>
> Those who want to be successful, will find a way,
> those that don't, will find an excuse!
>
>
>

312. Re: Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 14:56:54 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210060656.3d448bec@posting.google.com>
Source record: 133551

riffin-rich <riffin-rich@cantspam.me> wrote in message n
>
> I have a vertical mount setup in the front section of my truck's
> bed...the antenna mount sits about 6 inches below the plane of my
> cab's top. Radiation starts about 3 inches below the top of the cab
> and goes up 9' from there.
>
> Thanks for your time/help!!!

I would double check all grounds. I've seen this problem on my 706 when I had a marginal ground. Mainly at the antenna base. I was mounting on the front edge of a truck bed, and ended up not really having enough metal under the antenna. I moved it to a different spot, and it mostly cleared up. I think I had this problem the worst on 17m. I'd ground the radio, antenna base, and make sure all grounds tie to the frame of the truck as a common point. Also double check your power wiring. Make sure it's thick enough wire and well connected. MK

313. Re: RFI problem with TOUCH SWITCH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 15:05:18 UTC
From: Robert Fanfant <fanfant1@attbi.com>
Message-ID: <OiYn9.56868$FO4.12179@sccrnsc03>
Source record: 133552

Here are a few links from the ARRL site. Hope you're a member...

http://www.arrl.org/tis/info/touchlamp.html
http://www.arrl.org/tis/info/pdf/59378.pdf
http://www.arrl.org/news/features/2001/10/18/1/
http://www.arrl.org/tis/info/pdf/49572.pdf

-rob

"Robert Fanfant" <fanfant1@attbi.com> wrote in message
news:d8Yn9.59363$xI5.11806@sccrnsc02...
> QST had an article that an individual wrote how he solved this problem. It
> was about 3 to 4 years ago so you should be able to go the the ARRL site
and
> search on "touch lamp" and capacitor. The solution was to put add a
capcitor
> to the input power and switch.
>
>
> "George Kinzer" <horseflygk@worldnet.att.net> wrote in message
> news:CxQn9.7931$ue4.338440@bgtnsc04-news.ops.worldnet.att.net...
> > no help..
> >
> > --
> > If first you don't succeed, do the same thing again...see what happens
> >
> > ?.??? ?)) -:?:-
> > ?.?? .????))
> > George Kinzer
> > ((??.?? ..??
> > -:?:- ((??
> > ?.?
> >
> > Those who want to be successful, will find a way,
> > those that don't, will find an excuse!
> >
> >
> >
>
>

314. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 15:30:13 UTC
From: "Donnie (N4JZH)" <n4jzh@knology.net>
Message-ID: <4ml0qu8pecvjd7v7gl3bkgh4dqqhgn8uqb@4ax.com>
Source record: 133553

On Sun, 06 Oct 2002 07:42:32 -0700, Wes Stewart <n7ws@nowhere.com>
wrote:

>Sorry to be OT but since there are a lot of computer savvy folks here
>I figured I'd ask a few questions here instead of some group where I
>would be a newbie.
>
>Is there any compelling reason to migrate to XP (pro) from Win98? I'm
>in the process of "upgrading" but I feel "degraded" instead.
>
>Note: "Stability" is not a compelling reason. The latest example I
>observed of superior stability was when the XYL asked me to drive her
>someplace and I told XP to shut down the computer. It dutifully
>popped up a screen that said "Windows shutting down" so I left. When I
>returned four hours later, it was still "shutting down." But maybe
>that's what Bill Gates means by stable.
>
>Half of my software doesn't work with XP, and of the half that does
>often I have to install it twice on the two "virtual machines" that
>I've tried to set up.
>
>I used windows update to install Service pack 1, which only took four
>hours to download and install and it appears that if I blow away the
>operating system and want to reinstall it I get to do the four hour
>drill again because the service pack wasn't actually placed on my hard
>drive for backup.
>
>I put this on a new hard drive, which I partitioned into two logical
>drives. According to the best info I could find I first installed
>Win98 on one partition, then XP on the other. XP then made a boot.ini
>file that is supposed to allow dual booting. Not on your life.
>
>I previously used Zone Alarm with Win98. Is the XP "firewall"
>adequate or do I need Zone Alarm too?
>
>I seem to be spending half of my waking hours maintaining a computer,
>which is supposed to be a tool, not an avocation.
>
>Should I buy a Mac?
>
>
>73,
>
>Wes

Is your XP a legal or a bootlegged version?

315. Re: Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 15:39:17 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <FOYn9.50464$VQ2.10205473@twister.midsouth.rr.com>
Source record: 133560

Hello,

While I do not have "empirical" evidence concerning the efficiency of screwdriver antennas... Can share some anecdotal evidence... A top loaded mobile antenna (Hustler) or whip using an automatic tuner is the best way to go. A screwdriver antenna is a very lossy device and your radiation efficiency will suffer. Ask one of the screwdriver antenna manufacturers about their field strength measurements versus a top loaded hustler. The usual response is... you can tune it from inside the car, I've worked a 100 countries, (those of us with the more efficient mobile antennas have probably worked 300 in the same amount of time!) and look at the wonderful SWR!! Sure, the SWR is great... So is the SWR into my dummy load. I would recommend spending a few extra dollars and investing in an automatic tuner with a mobile whip. In the long run this arrangement is probably more cost effective (screwdrivers are prone to breaking due to vibration) and a much more efficient than a screwdriver. And, a much safer means of operating while driving. Our eyes should be on the road not the swr meter. If the budget cannot support an automatic tuner, purchase a top loaded mobile whip for two or three of your favorite bands. If you can stand ugly the Texas Bugcatcher is an excellent choice as well. It's fun having the guy at the other end give you an excellent signal report and then tell him your mobile. Whatever antenna you buy be sure to have an excellent grounding system and the base of the antenna as high on the car as possible. The two worse culprits for a bad mobile install are poor grounding and the antenna in an impossible place to work efficiently.

Ken N4VSD

"Leland C. Scott" <no-spam@junk-mail.net> wrote in message news:CIKcnSr07szkJD2gXTWcqg@News.GigaNews.Com...
> Is there any information available regarding the analysis of the
> Screwdriver type of antenna some where? For example how much does the
> loading coil contribute to the total antenna radiation, the radiation
> resistance of the loading coil, the skin effect losses etc.
>
>
> --
> Leland C. Scott
> KC8LDO
>
> ARRL Member
> NCI Member
>
>

316. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 15:44:59 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <%TYn9.50465$VQ2.10206636@twister.midsouth.rr.com>
Source record: 133554

Hello,

If your current OS is working for you then stick with it. The latest greatest is not always the best way to go.

Ken

N4VSD

"Donnie (N4JZH)" <n4jzh@knology.net> wrote in message news:4ml0qu8pecvjd7v7gl3bkgh4dqqhgn8uqb@4ax.com...
> On Sun, 06 Oct 2002 07:42:32 -0700, Wes Stewart <n7ws@nowhere.com>
> wrote:
>
> >Sorry to be OT but since there are a lot of computer savvy folks here
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> >that's what Bill Gates means by stable.
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> >hours to download and install and it appears that if I blow away the
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> >file that is supposed to allow dual booting. Not on your life.
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> >adequate or do I need Zone Alarm too?

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> >I seem to be spending half of my waking hours maintaining a computer,
> >which is supposed to be a tool, not an avocation.
> >
> >Should I buy a Mac?
> >
> >
> >73,
> >
> >Wes
>
> Is your XP a legal or a bootlegged version?
>

317. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 15:54:50 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <e1Zn9.50466$VQ2.10208727@twister.midsouth.rr.com>
Source record: 133555

Hello,

I would like to apologize for my fellow ham implying you would steal
software. He probably has stock in Microsloth!!

Ken

"Donnie (N4JZH)" <n4jzh@knology.net> wrote in message
news:4ml0qu8pecvjd7v7gl3bkgh4dqqhgn8uqb@4ax.com...
> On Sun, 06 Oct 2002 07:42:32 -0700, Wes Stewart <n7ws@nowhere.com>
> wrote:
>
> >Sorry to be OT but since there are a lot of computer savvy folks here
> >I figured I'd ask a few questions here instead of some group where I
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> >drill again because the service pack wasn't actually placed on my hard
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> >
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> >Win98 on one partition, then XP on the other. XP then made a boot.ini
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> >Should I buy a Mac?
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> >
> >73,
> >
> >Wes
>
> Is your XP a legal or a bootlegged version?
>

318. Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 16:02:15 UTC
From: riffin-rich <riffin-rich@cantspam.me>
Message-ID: <b9l0qus5t70cupehfl92h045l8rf995qv2@4ax.com>
Source record: 133556

Sounds simple enough, but how do I cleanly/professionally accomplish it? I've been to Lowes, Home Depot, a couple of auto parts stores and auto-electronics install shops and found no ideas worth pursuing...

My desire is to use some really heavy gauge wire -- I'll need about 16' -- (what gauge will I need for this kind of a run?) -- enough to handle current to support all radios and the linear amplifier to extend power directly from my dual battery/dual alternator engine compartment into the truck's interier. From there, I want a really clean power distribution strip/bar or something better than crimp-on connectors fastened together with 3/16" nuts/bolts (suggested by all the places I was at before).

As far as radios, I'll be using two primary radios: an IC-706 and IC-2070 (when they finally release it). I don't have the 500W linear amplifier yet, but I intend to add it to my setup at some point in the future and I'd like to use existing wires unless you all don't think it's practical...

Thoughts / Suggestions? Many thanks....

73 Rich KB2ZMF, CO Springs
(sorry about the dead e-mail address ... I hate spam and this technique works!)

319. Re: How to find out frequency range of an omni antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 16:04:33 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <laZn9.50473$VQ2.10210539@twister.midsouth.rr.com>
Source record: 133557

What is the length of the antenna? And, does it have a model number or manufacturer stamped on it? If it wasn't designed for 2.4GHz it will eventually fry anything hooked up to it. As far as determining it's frequency without some type of marking on the antenna is going to be difficult. Ask around in your area if there are any hams using microwave or Oscar-40, they should have a means of measuring it. A picture would help if nothing else.

Ken

"Aaron Rogerson" <arogerso@bigpond.net.au> wrote in message news:0NCn9.4393$vg.9919@news-server.bigpond.net.au...
> I found a rather sturdy vertical antenna at the tip a while back which had a
> n type female socket for the coax. This lead me to believe that it is for
> the microwave spectrum. I have 2.4ghz wireless access point for intranet
> connectivity and was wondering how would I go about testing this antenna and
> finding out its frequency range? I have it plugged up currently and the
> signal coming from it at 2.4ghz is good, but Im not entirely sure it was
> designed for that frequency.
> Thanks,
> Aaron.
>
>

320. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 16:11:56 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA060CC.247D42A0@cwis.net>
Source record: 133558

Wes,
That's odd, I'm using 'XP' and am having no trouble
with it. In fact, except for the period of time it
took for me to 'un-learn' W98SE and learn 'XP', I honestly
have to say this has been the most 'painless' up grade,
and operating system I've used.
As with any version of 'Windows', the more memory you
have, the better it works. The 'average' suggested memory
amount that MS recomends is the absolute minimum you can
'get by' with, the more the merrier. Also, the more things
'registered' on the computer (in the registery), the slower
it is. Even with a 'slug' of programs, my 'XP' is still
faster to start/stop than '98 was, and if you really want to,
there are 'tricks' that make it shut down almost as fast as
flipping the switch (well, sort of).
I have to agree with you that Mr. Gates, or the designers
at MS, need to quit worrying about making things 'new', and
start polishing the operating systems they have now. The
'holes' that they seem to design in, need to be filled. There
are 'better' OS's, but 'Windows' is the easiest to live with
as far as convenience is conserned...
'Doc
PS - What can you say about any company that considers a
keyboard an accessory?

321. Re: RFI problem with TOUCH SWITCH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 16:15:45 UTC
From: Dan/W4NTI <w4nti@mindspringnospam.com>
Message-ID: <anpnrecvp1@slb5.atl.mindspring.net>
Source record: 133559

My wife did the same thing. But these also had a standard on/off switch. I found that by just turning it off as normal it ended my 'flashing trouble'.

Dan/W4NTI

"Leland Cox" <lcox107@comcast.net> wrote in message news:3D9FC221.5030803@comcast.net...
> My wife has several lamp s with touch switches. When I try to transmit
> on HF with even low power, the lamps switch on and off!
>
> I am using an Icom 706 Mk2G. I had a TVI problem on 2M and 440 but
> found a bad cable causing that problem.
>
> I have a bunch of ferrite chokes on the power wire for these lamps. Not
> much help!
>
> No problem on the dummy load!
>
> Anyone have an answer to this problem other than removing the touch
> switches or divorcing the XYL?
>
> Les, AA4F
>

322. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 16:37:16 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA066BC.62F5031D@cwis.net>
Source record: 133561

JustThinkin,
About using a 'Match Box' on 160 and the WARC bands, all
it needs is to add in switchable capacitance (a door-knob or
two). I haven't done it, but have seen a couple done locally.
Really, the only thing going for the Hohnson MatchBoxes is the
link coupling. 'Course, that's enough, huh?
'Doc

323. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 16:45:36 UTC
From: "Ron P." <rpackerii@neo.rr.com>
Message-ID: <QMZn9.47401$Cz.5995920@twister.neo.rr.com>
Source record: 133562

Rich,

Personally, in my car I used 6 gauge wire, routed away from any moving parts (I have had people come into my shop and ask why their amp wasn't working, and when I looked at the wiring, lo-and-behold!!! Wire caught in the cruise control motor (older s-10 with vaccuum motor)), drilled a hole through the fire wall (be sure to check for wires and other stuff on the other side!), put a grommet on the wire (keeps wire away from the edges of the metal that will chafe it and cause a short and keeps cold wind out of the car), run it up into a distribution block (4 connections is good, I used 8, since I never know what new toys I might get in the future hihi). Since it is a truck, and an ic-706, use the remote kit in it, and put your radio under the seat, making sure it has enough room for cooling, and run your distribution block back there. Make sure the block can't be messed with though, since you have around, and this is a guess, 1600 amps or so running back there, since you said you have a dual batt., and I am guessing they are in parrallel. Any other questions, e-mail me, and I will give you pics of some of the installs I have done. A couple are ham installs, most are high current car radio (total of 4000 of amps needs a lot of power!!).

Ron - kc8ulu

"riffin-rich" <riffin-rich@cantspam.me> wrote in message
news:b9l0qus5t70cupehfl92h045l8rf995qv2@4ax.com...
> Sounds simple enough, but how do I cleanly/professionally accomplish
> it? I've been to Lowes, Home Depot, a couple of auto parts stores and
> auto-electronics install shops and found no ideas worth pursuing...
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> My desire is to use some really heavy gauge wire -- I'll need about
> 16' -- (what gauge will I need for this kind of a run?) -- enough to
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> extend power directly from my dual battery/dual alternator engine
> compartment into the truck's interier. From there, I want a really
> clean power distribution strip/bar or something better than crimp-on
> connectors fastened together with 3/16" nuts/bolts (suggested by all
> the places I was at before).
>
> As far as radios, I'll be using two primary radios: an IC-706 and
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> amplifier yet, but I intend to add it to my setup at some point in the
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> Thoughts / Suggestions? Many thanks....
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> technique works!)

324. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 16:46:06 UTC
From: riffin-rich <riffin-rich@cantspam.me>
Message-ID: <3mo0quos7nigt56kj927917r95uc1lfltj@4ax.com>
Source record: 133563

Hi Wes. 3 months ago, I built a new system--a 2.4GHZ P4 with 1GB RAM and twin 120GB drives...even more bells and whistles as it pertains to Audigy Platinum sound, 48x readers/writers, etc... I thought it was best to install Win XP Pro (the state of the art OS to complement my state of the art H/W).

Let me define a problem using a common legacy program, Office 2000 or previous. Win XP needs Office XP to run "properly" if you want to follow the ideal security model. The point of Win XP Pro was to allow an administrator to install the software and create user accounts with limited permissions. The limited user accounts would then log on and use the system without having full-up sys admin priveleges, thereby limiting the damage they could cause if they encountered a virus or if a hacker somehow ingressed the system while they were on-line.

Office 2K, like its predecessors, doesn't follow the newest/strongest security model of XP-certified software. While Office 2K works great as when you're logged on as an administrator, it doesn't work great if you log on as a limited user. That's because the Office 2K software is trying to write to directories (and the registry) which Win XP has locked down. While there are ways to fix this problem so that it can work for a limited user, you're ultimately compromising the intent of Win XP Pro.

For what it's worth, I have an always-on 4+Mb/sec connection to the internet. So, security is important to me...but because I'm not running all XP compliant software, I'm actually comprimising security. (I do run a h/w firewall, ZoneAlarm, and I check for antivirus updates DAILY...).

Also, your slow shut down is based on using legacy hardware and/or drivers and/or software. My shutdown was screaming fast...under 5 secs until I installed my old smartmedia card reader. Now shutdowns take nearly 2 mins...but I won't pay for a new one because this one works for the limited applications.

Bottom lines: (1) If you're going to use non XP-certified software, and you're not terribly concerned about maximizing your security model, then you're probably better off using Win 98SE. (2) If you're using Win XP and going to use log-on as an administrator all the time--you probably don't need Win XP Pro because you're not fanatically concerned about enforcing security (my opinion...no flames intended...) (3) Do not, repeat, do not rely on the very limited Win XP firewall. I suggest disabling it altogether and running Zone Alarm (far more comprehensive a solution).

Enough for now. Good luck with your tough decision.

Regards,

73 Rich KB2ZMF, CO Springs
(sorry about the dead e-mail address ... I hate spam and this
technique works!)

On Sun, 06 Oct 2002 07:42:32 -0700, Wes Stewart <n7ws@nowhere.com>
wrote:

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>which is supposed to be a tool, not an avocation.
>
>Should I buy a Mac?
>
>
>73,
>
>Wes

325. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 17:27:27 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-0610021027270001@bni030qny8kc.bc.hsia.telus.net>
Source record: 133564

In article <a018i2Cc6+n9EAll@ifwtech.co.uk>, "Ian White, G3SEK"
<g3sek@ifwtech.co.uk> wrote:

> Please be careful about using SpamCop as your bodyguard - it's too
> trigger-happy, and some of the ricochets can come right back at you.
>
> One of the things SpamCop can do is block mail from IP addresses that
> have been used for spamming. "Great!" you say... but what actually
> happens?
>
> If some idiot tries to use *your* ISP to send spam, your ISP can only
> shut them down after the offence has been committed (or is in progress).
> Some spam will get out, and if SpamCop notices, it will then target
> *all* mail from the offending IP address. But that address is usually an
> outgoing mail server which is being shared among all of your ISP's
> customers - including *you*.
>
> So any of *your* outgoing messages that happen to be routed through that
> server will not reach anyone who is "protected" by SpamCop. It takes
> several days before a timer inside SpamCop graciously decides to
> "forgive" your ISP.
>
> IMO, this particular cure is worse than the original problem.

Unfortunately Ian is quite right about this. My otherwise excellent ADSL provider, Telus, regularly gets put on the SpamCop list for this very reason, and outgoing mail from my computer or my wife's computer then gets returned from some ISPs. Fortunately, fewer and fewer ISPs are paying attention to SpamCop. At one time, Telus had two different machines acting as SMTPservers, with different IP addresses. Depending upon the luck of the draw, a given e-mail message would go out through the first machine (IP address not blocked) or the second (IP address blocked). If a message bounced, we'd just try again.

SPAM is a very real problem. But many of the cures are even worse than the disease. The "Delete" button is cheap and effective and if you throw something away that you should have kept, it's your own fault. My wife and I have to use it an average of 50 times per day, and this number is increasing rapidly with time. SPAM is even more a pain in the neck when away from home and using a slow dialup connection with per-minute charges, in places like motels too many miles from the local telephone office in the middle of South Dakota.

David, ex-W8EZE

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

326. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 17:39:19 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <58s0qu4dctghi13ra080f33pggipos656e@4ax.com>
Source record: 133565

On Sun, 06 Oct 2002 07:42:32 -0700, Wes Stewart <n7ws@nowhere.com>
wrote:

>Sorry to be OT but since there are a lot of computer savvy folks here
>I figured I'd ask a few questions here instead of some group where I
>would be a newbie.
>
>Is there any compelling reason to migrate to XP (pro) from Win98? I'm
>in the process of "upgrading" but I feel "degraded" instead.
>
snip
>
>Should I buy a Mac?
>
>
>73,
>
>Wes

Hi Wes,

Abandon the Win98 path entirely and go for Win2000 (NT derivative).

Buy a Mac? A super-sized big Mac meal-deal maybe. This wormy Apple
has been trading on stale laurels (ripped off from Xerox) for 20 years
while contributing absolutely nothing new technologically for more
than half that period. Making see-thru cases is the lamest step
forward they've offered. I've found nothing more amusing than the
standard snub of "my Mac doesn't crash," and then observe it crash as
frequently as any PC - the Mac form of denial. Apple survives simply
by being the not-Microsoft computer - BFD.

73's
Richard Clark, KB7QHC

327. Re: FS r Trade HG-37 tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 17:48:22 UTC
From: wb4una@aol.com
Message-ID: <20021006134822.24535.00010243@mb-mr.aol.com>
Source record: 133566

TOWER IS SOLD ..

THANKS RANDY

ARS: WB4UNA
Randy Chavis
247 Goff Court
West Columbia
S.C. 29172

328. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 17:48:50 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <aft0qukc3b9dbup2jl2e6j6bortalh2ej8@4ax.com>
Source record: 133567

On Sun, 06 Oct 2002 16:02:15 GMT, riffin-rich
<riffin-rich@cantspam.me> wrote:

>Sounds simple enough, but how do I cleanly/professionally accomplish
>it? I've been to Lowes, Home Depot, a couple of auto parts stores and
>auto-electronics install shops and found no ideas worth pursuing...
>
>My desire is to use some really heavy gauge wire -- I'll need about
>16' -- (what gauge will I need for this kind of a run?) -- enough to
>handle current to support all radios and the linear amplifier to
>extend power directly from my dual battery/dual alternator engine
>compartment into the truck's interier. From there, I want a really
>clean power distribution strip/bar or something better than crimp-on
>connectors fastened together with 3/16" nuts/bolts (suggested by all
>the places I was at before).
>
>As far as radios, I'll be using two primary radios: an IC-706 and
>IC-2070 (when they finally release it). I don't have the 500W linear
>amplifier yet, but I intend to add it to my setup at some point in the
>future and I'd like to use existing wires unless you all don't think
>it's practical...
>
>Thoughts / Suggestions? Many thanks....
>
>73 Rich KB2ZMF, CO Springs
>(sorry about the dead e-mail address ... I hate spam and this
>technique works!)

Hi Rich,

Fuse the lead at the battery end. Make sure the lead goes through a
protecting grommet in the firewall (that knife edge will saw through
the insulation pronto - and all the more reason to fuse at the
battery). Use what are called forklift connectors to mate to
equipment (or the distribution panel and use smaller versions of the
same connector to the equipment). Integrate a sub-fuse-panel into
this so that individual feeds are not relying on that one huge fuse.
I actually don't use fuses, I go for the resetable circuit breakers.

73's
Richard Clark, KB7QHC

329. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 17:54:00 UTC
From: tmgroatatpeakpeakdotcom
Message-ID: <3da0760b.10516921@news.peakpeak.com>
Source record: 133568

You need to know the load current to select a good wire size. For a 500W amp alone, that may be 80A or more...probably at least 100A including the transceiver. Get the amplifier specs before you make the decision.

I doubt 6AWG will be good enough. 6AWG at 0.4 mohm per foot, x 2 wires, x 16feet, x 100A = 1.28V drop in the wires alone. Add more voltage drop for the fuses and battery internal resistance, and things don't look too good. You probably want at least 10AWG for the rigs alone (20-30A fuses), or at least 2AWG when you add the amplifier (100A fuses).

--KR0U

330. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 17:59:58 UTC
From: Francois Pare <francoispare2002@yahoo.ca>
Message-ID: <yS_n9.1729$%21.86966@charlie.risq.qc.ca>
Source record: 133470

hi Wes.

For now i would suggest you keep your current OS.
Since the XP is giving you so much problems. As you
say ... you dont have a tool anymore but a time
consuming machine.

For long term consideration ... maybe you would like
to use your own OS insted of M$. I meen GNU/Linux.
It is public and when you will feel that your current
pc doesn't give you anymore fast service with M$
products, you could experiment with thousands
pieces of public software that includes radio
software, antenna software, propagation, ect all
publicly accessible on the net. The source code is
open so bugs cannot survive.

There are several companies who are assembling the
free public packages of GNU/Linux and selling them
as easy installation cdroms with books ect ...

But I know you mentionned that your computer is to be
used most of the time not administered so that's
why i'm only suggesting. You would have a cost effective
computer and software that's regulary updated and
free of cost. It's public. It' yours.

Maybe reserve a night of serching and learning on the web for
the distribution of Gnu/Linux that would suit you the
best. I tell you Wes, they're is fantastic software for
the radio-amateurs like us in the public domain.
Very cheap but powerfull in the same phylosophy of hams.

Some place to start http://www.linux.org
http://www.linux.com

http://www.mandrake.com (great for newbies)

http://www.debian.org (use to be managed
by a ham... lots
of software for
us. A bit rough
for the new user
though ...)

http://www.redhat.com (largest market share)

http://www.suse.com (highly stable)

You can even have a dual boot machine. That is M$ Windows
and Gnu/Linux on the same PC.

Bonne chance mon ami.

73

Francois.
VE2-FFP

Wes Stewart wrote:

> Sorry to be OT but since there are a lot of computer savvy folks here
> I figured I'd ask a few questions here instead of some group where I
> would be a newbie.
>
> Is there any compelling reason to migrate to XP (pro) from Win98? I'm
> in the process of "upgrading" but I feel "degraded" instead.
>
> Note: "Stability" is not a compelling reason. The latest example I
> observed of superior stability was when the XYL asked me to drive her
> someplace and I told XP to shut down the computer. It dutifully
> popped up a screen that said "Windows shutting down" so I left. When I
> returned four hours later, it was still "shutting down." But maybe
> that's what Bill Gates means by stable.
>
> Half of my software doesn't work with XP, and of the half that does
> often I have to install it twice on the two "virtual machines" that
> I've tried to set up.
>
> I used windows update to install Service pack 1, which only took four
> hours to download and install and it appears that if I blow away the
> operating system and want to reinstall it I get to do the four hour
> drill again because the service pack wasn't actually placed on my hard
> drive for backup.
>
> I put this on a new hard drive, which I partitioned into two logical
> drives. According to the best info I could find I first installed
> Win98 on one partition, then XP on the other. XP then made a boot.ini
> file that is supposed to allow dual booting. Not on your life.
>
> I previously used Zone Alarm with Win98. Is the XP "firewall"
> adequate or do I need Zone Alarm too?
>
> I seem to be spending half of my waking hours maintaining a computer,
> which is supposed to be a tool, not an avocation.
>
> Should I buy a Mac?
>
>
> 73,

>
> Wes

331. Re: RFI problem with TOUCH SWITCH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 18:08:45 UTC
From: Leland Cox <lcox107@comcast.net>
Message-ID: <3DA07C2D.6020807@comcast.net>
Source record: 133469

Thanks for the ideas. It seems I am not the only one with this problem!
The links to the ARRL site gave me plenty ideas to try! I will be
working on this tonight!

Thanks to all,
Les, AA4F

Leland Cox wrote:

> My wife has several lamp s with touch switches. When I try to transmit
> on HF with even low power, the lamps switch on and off!
>
> I am using an Icom 706 Mk2G. I had a TVI problem on 2M and 440 but
> found a bad cable causing that problem.
>
> I have a bunch of ferrite chokes on the power wire for these lamps. Not
> much help!
>
> No problem on the dummy load!
>
> Anyone have an answer to this problem other than removing the touch
> switches or divorcing the XYL?
>
> Les, AA4F
>

332. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 18:13:42 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA07D56.F4A06B8E@ieee.org>
Source record: 133472

Wes Stewart wrote:
> Is there any compelling reason to migrate to XP (pro) from Win98?

My daughter, who designs web pages, found out the only way to
reliably upgrade from Win98 to XP was to re-format her hard
drive, install XP from scratch, and re-install all her software.
She tried for a week to install the XP upgrade over Win98 and
it failed to ever function properly.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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333. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 18:15:18 UTC
From: Leland Cox <lcox107@comcast.net>
Message-ID: <3DA07DB6.8010806@comcast.net>
Source record: 133471

Wes,

I remoted my Icom 706 under the back seat and routed the wiring under the floorboard of my Yukon. There was even a metal knock out where I wanted to run the wires up through the floor.

I used some #6 wire from the + and - battery post and installed a circuit breaker near the battery on the + wire.

LOOK BEFORE YOU DRILL! The gas tank is on the driver side and close to the floor.

Les, AA4F

riffin-rich wrote:

> Sounds simple enough, but how do I cleanly/professionally accomplish
> it? I've been to Lowes, Home Depot, a couple of auto parts stores and
> auto-electronics install shops and found no ideas worth pursuing...
>
> My desire is to use some really heavy gauge wire -- I'll need about
> 16' -- (what gauge will I need for this kind of a run?) -- enough to
> handle current to support all radios and the linear amplifier to
> extend power directly from my dual battery/dual alternator engine
> compartment into the truck's interier. From there, I want a really
> clean power distribution strip/bar or something better than crimp-on
> connectors fastened together with 3/16" nuts/bolts (suggested by all
> the places I was at before).
>
> As far as radios, I'll be using two primary radios: an IC-706 and
> IC-2070 (when they finally release it). I don't have the 500W linear
> amplifier yet, but I intend to add it to my setup at some point in the
> future and I'd like to use existing wires unless you all don't think
> it's practical...
>
> Thoughts / Suggestions? Many thanks....
>
> 73 Rich KB2ZMF, CO Springs
> (sorry about the dead e-mail address ... I hate spam and this
> technique works!)
>

334. Re: Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 18:23:34 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA07FA6.CE476F7D@ieee.org>
Source record: 133473

Ken N4VSD wrote:
> A screwdriver antenna is a very lossy device and your radiation
> efficiency will suffer.

Hmmmmmm, someone should tell that to Vern, W6MMA who tied for first
place using a screwdriver in one of the last CA 75m shootouts. He beat
out all the bugcatchers except the one he tied with. Methinks your
data is obsolete.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

335. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 18:27:37 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA08099.37C17273@ieee.org>
Source record: 133474

Leland Cox wrote:
> I remoted my Icom 706 under the back seat and routed the wiring under
> the floorboard of my Yukon.

I run my 706 off the auxiliary power connector in my GMC pickup,
the one right next to the cigarette lighter. I've had no problems.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

336. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 18:41:40 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <8t01qu42s8pm6diq7m66rvsfg69v05ljo2@4ax.com>
Source record: 133475

On Sun, 06 Oct 2002 11:30:13 -0400, "Donnie (N4JZH)"
<n4jzh@knology.net> wrote:

|
| Is your XP a legal or a bootlegged version?

Well since I said that I used Windows Update to install SP1 what do
you think?

337. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 18:48:05 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <u111qu4iip4jlkplan9pe2irrf1ffdbnig@4ax.com>
Source record: 133476

On Sun, 06 Oct 2002 16:46:06 GMT, riffin-rich
<riffin-rich@cantspam.me> wrote:

|Hi Wes. 3 months ago, I built a new system--a 2.4GHZ P4 with 1GB RAM
|and twin 120GB drives...even more bells and whistles as it pertains to
|Audigy Platinum sound, 48x readers/writers, etc... I thought it was
|best to install Win XP Pro (the state of the art OS to complement my
|state of the art H/W).
|
|Let me define a problem using a common legacy program, Office 2000 or
|previous. Win XP needs Office XP to run "properly" if you want to
|follow the ideal security model. The point of Win XP Pro was to allow
|an administrator to install the software and create user accounts with
|limited permissions. The limited user accounts would then log on and
|use the system without having full-up sys admin priveleges, thereby
|limiting the damage they could cause if they encountered a virus or if
|a hacker somehow ingressed the system while they were on-line.
|
|Office 2K, like its predecessors, doesn't follow the newest/strongest
|security model of XP-certified software. While Office 2K works great
|as when you're logged on as an administrator, it doesn't work great if
|you log on as a limited user. That's because the Office 2K software
|is trying to write to directories (and the registry) which Win XP has
|locked down. While there are ways to fix this problem so that it can
|work for a limited user, you're ultimately compromising the intent of
|Win XP Pro.
|
|For what it's worth, I have an always-on 4+Mb/sec connection to the
|internet. So, security is important to me...but because I'm not
|running all XP compliant software, I'm actually comprimising security.
|(I do run a h/w firewall, ZoneAlarm, and I check for antivirus updates
|DAILY...).
|
|Also, your slow shut down is based on using legacy hardware and/or
|drivers and/or software. My shutdown was screaming fast...under 5
|secs until I installed my old smartmedia card reader. Now shutdowns
|take nearly 2 mins...but I won't pay for a new one because this one
|works for the limited applications.
|
|Bottom lines: (1) If you're going to use non XP-certified software,
|and you're not terribly concerned about maximizing your security
|model, then you're probably better off using Win 98SE. (2) If you're
|using Win XP and going to use log-on as an administrator all the
|time--you probably don't need Win XP Pro because you're not

|fanatically concerned about enforcing security (my opinion...no flames
|intended...) (3) Do not, repeat, do not rely on the very limited Win
|XP firewall. I suggest disabling it altogether and running Zone Alarm
|(far more comprehensive a solution).
|
|Enough for now. Good luck with your tough decision.

Thanks for all of this. My "old" 98SE was slowing down from bloat and I figured the best way to avoid losing stuff was a second hard drive and a new install. Since I was going to the trouble, I thought XP might be the way to go, however, the learning curve and some of the things you bring up suggest that since 98 was serving my needs before it might be best to stick with it.

73,

Wes

338. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 18:49:27 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <lc11qu8vht329ggvjtmp08b40imr78ra2a@4ax.com>
Source record: 133477

On Sun, 06 Oct 2002 13:13:42 -0500, CAM <Cecil.A.Moore@ieee.org>
wrote:

|Wes Stewart wrote:
|> Is there any compelling reason to migrate to XP (pro) from Win98?
|
|My daughter, who designs web pages, found out the only way to
|reliably upgrade from Win98 to XP was to re-format her hard
|drive, install XP from scratch, and re-install all her software.
|She tried for a week to install the XP upgrade over Win98 and
|it failed to ever function properly.

Yes, this was a new install on a new drive.

339. Re: Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 19:19:58 UTC
From: Jim <kg4enu@carolina.rr.com>
Message-ID: <k431quc65qcao9m7ed3hdidh5t2j8g3k4u@4ax.com>
Source record: 133478

Shoot-outs...isnt that a CB type thing.

On Sun, 06 Oct 2002 10:22:36 -0700, Dick Hughes
<rhughes33@cableone.net> wrote:

>Surely you must be joking. Have you read any of the antenna
>shoot-outs? The screwdriver is usually in second place behind some
>guy with an Eiffel Tower mounted to his truck.
>
>Dick - W6CCD
>
>On Sun, 06 Oct 2002 15:39:17 GMT, "Ken N4VSD"
><REMOVECAPSn4vsd@yahoo.com> wrote:
>
>>Hello,
>>
>>While I do not have "empirical" evidence concerning the efficiency of
>>screwdriver antennas... Can share some anecdotal evidence... A top loaded
>>mobile antenna (Hustler) or whip using an automatic tuner is the best way to
>>go. A screwdriver antenna is a very lossy device and your radiation
>>efficiency will suffer.
>>
>>Ken N4VSD
>>
>>"Leland C. Scott" <no-spam@junk-mail.net> wrote in message
>>news:CIKcnSr07szkJD2gXTWcqg@News.GigaNews.Com...
>>> Is there any information available regarding the analysis of the
>>> Screwdriver type of antenna some where? For example how much does the
>>> loading coil contribute to the total antenna radiation, the radiation
>>> resistance of the loading coil, the skin effect losses etc.
>>>
>>> Leland C. Scott
>>> KC8LDO

340. Steppir antenna adjustments

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 19:24:07 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210061124.71f3e39a@posting.google.com>
Source record: 133479

The AEA loop antenna used signal strength and/or
SWR to determine position of antenna setting.
Reading the instruction book for the STEPPIR Antenna
it would appear that the 3 element yagi element lengths
are pre programmed per frequency, which would 'appear'
that they are not optimumised for different heights.
Would the difference of height be of no consequence
compared to preprogrammed figures for front to rear
etc. for all frequencies between 14 and 30Mhz?
The antenna was tested at 40 ft when designed.
Art

341. Re: RFI problem with TOUCH SWITCH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 19:29:03 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <anq2tv$e6h$0@208.207.71.138>
Source record: 133480

Leland Cox wrote:
>
> My wife has several lamp s with touch switches. When I try to transmit
> on HF with even low power, the lamps switch on and off!
>
> I am using an Icom 706 Mk2G. I had a TVI problem on 2M and 440 but
> found a bad cable causing that problem.
>
> I have a bunch of ferrite chokes on the power wire for these lamps. Not
> much help!
>
> No problem on the dummy load!
>
> Anyone have an answer to this problem other than removing the touch
> switches or divorcing the XYL?

Sure- move your antennas away from the house far enough that they don't induce RF onto the house wiring. If you can't do that, looks like you'll have to crank down the wick....maybe a long way down, to QRP.

Dick

342. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 19:47:09 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <anq3vthcp0@208.207.71.138>
Source record: 133481

Richard Clark wrote:
>
> Abandon the Win98 path entirely and go for Win2000 (NT derivative).
>

Rich, where does ME fit into this picture? Is it a home version of
2000? Or a different beast entirely?

Dick

343. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 20:00:55 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <kb51quo1vgu0ks5fard8b9piicoo43du7g@4ax.com>
Source record: 133482

On 6 Oct 2002 19:47:09 GMT, Dick Carroll <dixie@townsqr.com> wrote:

>
>
>Richard Clark wrote:
>>
>> Abandon the Win98 path entirely and go for Win2000 (NT derivative).
>>
>
>
> Rich, where does ME fit into this picture? Is it a home version of
>2000? Or a different beast entirely?
>
>Dick

Hi Dick,

That abomination is in the Win98 family. I used to crow how good the system recover tools were, because I used them every day - even that statement became false (it flat refused to recover to the fresh re-install I performed several days before - that I called on that function that soon is telling).

73's
Richard Clark, KB7QHC

344. Re: Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 20:41:59 UTC
From: Larry Johnson <larryj@teleport.com>
Message-ID: <3DA09C76.24753FBA@teleport.com>
Source record: 133483

Which model Screwdriver was he using? Looks like there are lots of
manufacturers out there, all claiming that their antenna is better than
everyone else's.
LJ

CAM wrote:
>
> Ken N4VSD wrote:
> > A screwdriver antenna is a very lossy device and your radiation
> > efficiency will suffer.
>
> Hmmmmmm, someone should tell that to Vern, W6MMA who tied for first
> place using a screwdriver in one of the last CA 75m shootouts. He beat
> out all the bugcatchers except the one he tied with. Methinks your
> data is obsolete.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
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> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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345. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 21:13:12 UTC
From: John Franklin <jpfrank@peoplepc.com>
Message-ID: <uq19ra5f2ri1ff@corp.supernews.com>
Source record: 133484

Make sure the block can't be messed with
> though, since you have around, and this is a guess, 1600 amps or so
running
> back there, since you said you have a dual batt., and I am guessing they
are
> in parrallel.

Don't you mean 1600 WATTS? 1600 amps is getting into the kind of current
draw that a SUBMARINE uses.....

Pat

346. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 21:39:13 UTC
From: nx7u@arrl.net
Message-ID: <3da0ad76.24411050@news.west.cox.net>
Source record: 133485

http://www.k2bj.com
http://members.cox.net/nx7u

the last one is mine :-)

On Sun, 06 Oct 2002 16:02:15 GMT, riffin-rich
<riffin-rich@cantspam.me> wrote:

>Sounds simple enough, but how do I cleanly/professionally accomplish
>it? I've been to Lowes, Home Depot, a couple of auto parts stores and
>auto-electronics install shops and found no ideas worth pursuing...
>
>My desire is to use some really heavy gauge wire -- I'll need about
>16' -- (what gauge will I need for this kind of a run?) -- enough to
>handle current to support all radios and the linear amplifier to
>extend power directly from my dual battery/dual alternator engine
>compartment into the truck's interier. From there, I want a really
>clean power distribution strip/bar or something better than crimp-on
>connectors fastened together with 3/16" nuts/bolts (suggested by all
>the places I was at before).
>
>As far as radios, I'll be using two primary radios: an IC-706 and
>IC-2070 (when they finally release it). I don't have the 500W linear
>amplifier yet, but I intend to add it to my setup at some point in the
>future and I'd like to use existing wires unless you all don't think
>it's practical...
>
>Thoughts / Suggestions? Many thanks....
>
>73 Rich KB2ZMF, CO Springs
>(sorry about the dead e-mail address ... I hate spam and this
>technique works!)

347. need help refurbishing Aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 21:49:51 UTC
From: Peter Shintani <shintani@cts.com>
Message-ID: <3DA0AFFF.B2DAEBF1@cts.com>
Source record: 133486

hi:
thanks for replying to this posting.
I have a MFJ magnetic loop antenna.
I removed the plastic housing and to my surprise the
aluminum loop and variable cap were all covered in whitish
Al oxide.

I would like to remove the Al oxide and then put a protective
clear coat of varnish or lacquer or paint.
1) can anyone recommend an easy way to remove the Al oxide ?
someone suggested a Scotch Brite pad ?
2) what sort of covering is transparent to RF up to 30 MHz, and will
stick to bare aluminum ?

Peter

348. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 23:17:46 UTC
From: "Dee D. Hays" <dee.hays@sbcglobal.net>
Message-ID: <uw3o9.2554$F53.2478265@newssvr28.news.prodigy.com>
Source record: 133487

"Mike Coslo" <mcoslo@adelphia.net> wrote in message
news:3D9FD33A.3090203@adelphia.net...
> Reg Edwards wrote:
>
> > As it's taken 15 or 20 years to write Windows it will take another 15 or
20
> > years to re-write it.
>
>
> Doesn't need re-written. Needs discarded and something else put in its
place.

It will still take years to do that. Either way there will be a
considerable time lag.

>
>... This is what some would have you believe. Unneeded "features" that
expose
> the innards of your computer to outside manipulation automatically place
> it in a vulnerable position.
>
> Lets look at a "feature". Someone decided that it was too much trouble to
> type your credit card info into a web page when you were trying to buy
> software or whatever over the web. So they come up with a whiz-bang
> system to store your info on your computer, or even better on *their*
> server. Sounds good.
>
> Problem is that for people who do coding, it isn't all that difficult to
> get into either your computer or theirs to find this out. Not to
> mention, it isn't too good to trust your cc information to be sitting on
> a server.
>
> Now it is very true that we have to give out our number from time to time
> over the phone or an encrypted web page. Those are fairly safe tho'.
> Having it sitting there on a server is like dangling a big fat carrot in
> front of the hacker bunnies. and there is the difference.

That doesn't mean the software is "bad". It means the consumer wants
features that are bad for him. Someone will fill that market. You don't
have to use the feature.

349. Re: Portable Magloop from 80-6m (also working on 2m)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 23:21:14 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <3DA0EFB2.5040308@adelphia.net>
Source record: 133488

Frank Stevens wrote:

> Hi,
>
> just wanna inform you that I found a new antenna for those who cannot
> setup antennas outside.
>
> On www.hamradio-portal.com they have an 100W-Loop-Version in stock
> which covers 80-6m and also 2m.
>
> Seems to be a quite nice antenna.
>
> If you like - take a look
> Bye Frank
>

I wonder how they get 8 kHz BW out of the thing on 80 meters? I would expect more like 2.5 kHz.

It also won't be very efficient on 80 meters, something in the 1 percent neighborhood.

It's too bad that people will try to squeeze too much out of a good thing.

Should work nicely above 20 meters though.

- Mike KB3EIA -

350. Re: need help refurbishing Aluminum antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 23:36:46 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DA0C87C.9BD555CD@tampabay.rr.com>
Source record: 133489

The scotch bright pad and WD40 works very well just spray the aluminum down with the WD40 and let it set for a few mins the scrub with the scotch bright pad will shine up nicely then wipe down with paper towel to remove WD40 left overs

Peter Shintani wrote:

> hi:
> thanks for replying to this posting.
> I have a MFJ magnetic loop antenna.
> I removed the plastic housing and to my surprise the
> aluminum loop and variable cap were all covered in whitish
> Al oxide.
>
> I would like to remove the Al oxide and then put a protective
> clear coat of varnish or lacquer or paint.
> 1) can anyone recommend an easy way to remove the Al oxide ?
> someone suggested a Scotch Brite pad ?
> 2) what sort of covering is transparent to RF up to 30 MHz, and will
> stick to bare aluminum ?
>
> Peter

351. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-06 23:48:54 UTC
From: K7JEB <k7jeb@arrl.no_spam.net>
Message-ID: <GZ3o9.9024$ue4.425346@bgtnsc04-news.ops.worldnet.att.net>
Source record: 133490

riffin-rich (Rich KB2ZMF):
> My desire is to use some really heavy gauge wire -- I'll need about
> 16' -- (what gauge will I need for this kind of a run?) -- enough to
> handle current to support all radios and the linear amplifier to
> extend power directly from my dual battery/dual alternator engine
> compartment into the truck's interier.

One other suggestion as to the KIND OF WIRE to use:
Check out arc-welding cable from your local welding
supply. It starts at 4 AWG and goes up (down) from
there. Welding cable is extremely flexible and yet
has an insulation that is resistant to chafing and
high temperatures. It is no more expensive than
the "super cables" car-audio suppliers palm off on
the gullible but is a far superior product. (However,
it's not certified to be "oxygen-free" and doesn't
come with gold-plated connectors installed ;-)).

--
Jim Bromley, K7JEB k7jeb @ arrl.net
Glendale, Arizona

352. Lew McCoy Zepp question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 00:25:27 UTC
From: Ron H <blah@attbi.com>
Message-ID: <Xv4o9.65356$DN4.9164@sccrnsc01>
Source record: 133491

I am using a modified Zepp ala Lew McCoy with a total 0f 208 feet of wire, center fed with 450 ohm ladder line into a balun. Question: Does the length of the coax run from the balun to the tuner matter? Explain?

K3PID

--
DO NOT REPLY TO THIS EMAIL! Send email to K3PID at arrl.net, of course you'll have to put it together. Sorry but it beats the spamers!

353. Broken glass insulator. Sob!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 00:35:59 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3DA0D6EF.54956004@nf.sympatico.ca>
Source record: 133493

Sob! (That's as in 'weep', not S.O.B as in "That SOB just .... ")
Although it would be an appropriate epithet in this case!

Had receiving antenna ready to go up and today found that someone must have dropped the nice eight/nine inch transmitting quality clear glass strain insulator (not an egg insulator) and it's cracked in two! Nice 'clean' break as it were, matches perfectly.

May be this is a stupid question; but is there any way, using today's glues, say, that I can rejoin the two broken faces together? Or am I just kidding myself? And it will come apart during the next wind storm?

Beg the indulgence of the group. Any advice pro/con welcomed.
TIA.

Terry in windy eastern Newfoundland Canada.

354. Carolina Cyclone Screwdriver Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 00:36:43 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <4v4o9.38836$OM4.31118302@e3500-atl1.usenetserver.com>
Source record: 133492

If you are ready to step up to convenient, high performance HF mobile, then please give me the
chance to provide you that product that will fulfill your needs! And at a price that doesn't break
the bank! You will find in the Carolina Cyclone antennas NO PVC, very heavy duty coils, windings, and power handling that can make your mobile sound like a base! (up to 800+ watts for
Cyclone I). I am retired and I build these antennas as a hobby and a small supplement to my retire-
ment income. There are, I believe, comments on my products on QSL.net. I really try to do a good job. So far, I have had many satisfied customers. If you have problems, I will repair, replace, or provide replacement parts free of charge for 2 years after purchase; I want you to be
happy. The Cyclone I is a FULL 2" diameter and uses #14 wire wound at 8 TPI rather than the
1 1/2" PVC wound with #16 wire at 10 TPI. Price is $240 including shipping to lower 48 states.

Cyclone II is a FULL 3" diameter using the same materials and construction techniques. The size
allows for even higher "Q" and power handling of 1500 watts! Price is $350 including shipping to
the lower 48 states! Compare that with the "BIG" names! Hey, I'm not just a builder, I am a regular user and I get results!!

The weather in the South is getting cooler. Get YOUR Cyclone installed and ready for effortless
QSY and high performance for the colder months!

73

Jerry
K4KWH

www.qsl.net/k4kwh

355. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 01:31:22 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0210061731.10af3e93@posting.google.com>
Source record: 133494

Wes Stewart <n7ws@nowhere.com> wrote in message
news:<2si0qu0vej2q6ckmkv2j24ik7svohbbovp@4ax.com>...
> Sorry to be OT but since there are a lot of computer savvy folks here
> I figured I'd ask a few questions here instead of some group where I
> would be a newbie.
>
> Is there any compelling reason to migrate to XP (pro) from Win98? I'm
> in the process of "upgrading" but I feel "degraded" instead.> I've tried to
> set up.

Welcome to a very large club. Blow out XP and install Win 2000 Pro.
It's basically a $150 worth of NT and it'll run any piece of software
which ever ran in any PC until these goofy XP apps came along. XP
strikes me as some kinda bastardized version of NT server with it's
main objective being to render any current apps you have obsolete and
force you to buy XP-compatible apps from guess-who. And Lord help you
if you try to install a pirated copy of any MS app if you're running
XP. XP is all about maximizing the volume of money in Our Bill's
pocket and nothing else. Been a tough year in his shop, pore
struggling fellow . .

My installation of Norton Anti-Virus 2002 automatically pings the
Symantec server when I log onto the net and completely updates itself
in the background. How much better can virus protection get? Have you
followed the stories about Micosloth's monumental bungling of security
issues??

Yeah, you need a real firewwall, not the lame crapper in XP.

>
> Should I buy a Mac?

Macs do many thing well. What Macs cannot do however is run 99.95% +/-
of the sum total number of apps currently available for use in desktop
'puters. WRT just to ham radio alone none of the rig control apps will
run in a Mac, ditto the mainstream logging programs like DX4WIN, CT or
Writelog, or any of the ham-level antennas modelers like EZNEC or
Nec-Win-Plus. If you happen to be an engineer or scientist Macs are
still farther out of consideration. Great dorm rat's surfing boxes
though, ya can peer thru the cases to watch them work and ya even have
yer choice of colors . .

>
>
> 73,
>

> Wes

w3rv

356. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 01:35:50 UTC
From: JWheeler <kd5bcu@yahoo.com>
Message-ID: <uq1p6rdf0ju013@corp.supernews.com>
Source record: 133495

"Wes Stewart" <n7ws@nowhere.com> wrote in message
news:lc11qu8vht329ggvjtmp08b40imr78ra2a@4ax.com...
> On Sun, 06 Oct 2002 13:13:42 -0500, CAM <Cecil.A.Moore@ieee.org>
> wrote:
>
> |Wes Stewart wrote:
> |> Is there any compelling reason to migrate to XP (pro) from Win98?
> |
> |My daughter, who designs web pages, found out the only way to
> |reliably upgrade from Win98 to XP was to re-format her hard
> |drive, install XP from scratch, and re-install all her software.
> |She tried for a week to install the XP upgrade over Win98 and
> |it failed to ever function properly.
>
> Yes, this was a new install on a new drive.
>
I will echo what some have already said. If Win98 was working for you,
stick with it. Just because something is new doesn't mean it is better. I
have had limited dealings with XP, and don't have a problem with it (I work
as an IT professional). I have seen Win98 present the same eternal shutdown
you mentioned with your XP machine.

Use what works for you.

JWheeler
KC5AV

357. Re: Broken glass insulator. Sob!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 01:52:52 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DA0E8DA.57A705E0@shaw.ca>
Source record: 133496

Terry wrote:
>
> Sob! (That's as in 'weep', not S.O.B as in "That SOB just .... ")
> Although it would be an appropriate epithet in this case!
>
> Had receiving antenna ready to go up and today found that someone
> must have dropped the nice eight/nine inch transmitting quality
> clear glass strain insulator (not an egg insulator) and it's
> cracked in two! Nice 'clean' break as it were, matches perfectly.
>
> May be this is a stupid question; but is there any way, using
> today's glues, say, that I can rejoin the two broken faces
> together? Or am I just kidding myself? And it will come apart
> during the next wind storm?
>
> Beg the indulgence of the group. Any advice pro/con welcomed.
> TIA.
>
> Terry in windy eastern Newfoundland Canada.

I doubt that you can glue it. I would replace it
with a piece of plexiglass. If the wires are soldered
around the insulator holes, just smash the ceramic
apart with a hammer. Irv EX VO1KW (1979) now VE6BP
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

358. Re: Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 02:20:14 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <yb6o9.50580$VQ2.10413943@twister.midsouth.rr.com>
Source record: 133497

Hello,

At what elevation angles and azimuths were the field strength test made?
Were all of the antennas tested on the same mount to compensate for
grounding differences? A screwdriver on top of a motor home will probably
knock the pants off a mobile whip mounted on the bumper of a Geo Metro!!!

Ken

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DA07FA6.CE476F7D@ieee.org...
> Ken N4VSD wrote:
> > A screwdriver antenna is a very lossy device and your radiation
> > efficiency will suffer.
>
> Hmmmmmm, someone should tell that to Vern, W6MMA who tied for first
> place using a screwdriver in one of the last CA 75m shootouts. He beat
> out all the bugcatchers except the one he tied with. Methinks your
> data is obsolete.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 80,000 Newsgroups - 16 Different Servers! =-----

359. Re: Broken glass insulator. Sob!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 03:05:45 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA0FA09.DA7F1559@cwis.net>
Source record: 133498

Terry,
hate to say it, but throw it away. You probably
could glue it together, but I don't think I'd put
much weight on it. I'd also worry about the glue joint
arcing (I know2 there really isn't that much chance,
but why take the chance?).
'Doc
PS - By the way, 'S.O.B.' is an old and respected
electronics term. If you've ever hung around
an electronics repair shop, you've probably
heard it a few times.

360. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 03:24:18 UTC
From: George Kinzer <horseflygk@worldnet.att.net>
Message-ID: <C77o9.6371$k_2.475279@bgtnsc05-news.ops.worldnet.att.net>
Source record: 133500

six gauge aught to do fine, for the extent of current draw, your amp will
draw about 40 amps , yo radio bout
10 amps..a single 100 amp alternator is really all you need (like the ones
in ambulances) dont know what school
the gentleman went to implying the amplifier will draw 80amps, lets
see...500/13.8 isnt near 80, more like 39 amps.
(i use ohms law) expect to pay a pretty penny for the wiring, remember, you
get what you pay for..as for the second battery i recommend a battery
isolator , this thing will fry, boil, stink, leak or all the above..after
all is said, don't use no cheap antenna....

.* *)) -:*:-
. .****))
George Kinzer
((**.** ..**
-:*:- ((**
**.*

Those who want to be successful, will find a way,
those that don't, will find an excuse!

361. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 03:26:51 UTC
From: riffin-rich <riffin-rich@cantspam.me>
Message-ID: <mev1quoujpm5hgu9qp0md8mj12allbsm8s@4ax.com>
Source record: 133501

Wes, If you do go back to Win 98, consider backing up your data to the second hard drive, formatting your Win98 hard drive, and starting over...load the Win 98 OS onto a cleanly formatted disk. Then be sure to run all the MS updates/service packs...ensure you've got current antivirus protection and the most current ZoneAlarm firewall...a new release of the firewall came out about a month ago...

Also, I didn't mention that you could also consider running a dual-boot system...but that's another whole can of worms. Good luck with whatever you decide. Take care...

73 Rich KB2ZMF, CO Springs
(sorry about the dead e-mail address ... I hate spam and this technique works!)

On Sun, 06 Oct 2002 11:48:05 -0700, Wes Stewart <n7ws@nowhere.com> wrote:

>On Sun, 06 Oct 2002 16:46:06 GMT, riffin-rich
><riffin-rich@cantspam.me> wrote:
>
>|Hi Wes. 3 months ago, I built a new system--a 2.4GHZ P4 with 1GB RAM
>|and twin 120GB drives...even more bells and whistles as it pertains to
>|Audigy Platinum sound, 48x readers/writers, etc... I thought it was
>|best to install Win XP Pro (the state of the art OS to complement my
>|state of the art H/W).
>|
>|Let me define a problem using a common legacy program, Office 2000 or
>|previous. Win XP needs Office XP to run "properly" if you want to
>|follow the ideal security model. The point of Win XP Pro was to allow
>|an administrator to install the software and create user accounts with
>|limited permissions. The limited user accounts would then log on and
>|use the system without having full-up sys admin priveleges, thereby
>|limiting the damage they could cause if they encountered a virus or if
>|a hacker somehow ingressed the system while they were on-line.
>|
>|Office 2K, like its predecessors, doesn't follow the newest/strongest
>|security model of XP-certified software. While Office 2K works great
>|as when you're logged on as an administrator, it doesn't work great if
>|you log on as a limited user. That's because the Office 2K software
>|is trying to write to directories (and the registry) which Win XP has
>|locked down. While there are ways to fix this problem so that it can
>|work for a limited user, you're ultimately compromising the intent of
>|Win XP Pro.
>|

>|For what it's worth, I have an always-on 4+Mb/sec connection to the
>|internet. So, security is important to me...but because I'm not
>|running all XP compliant software, I'm actually comprimising security.
>|(I do run a h/w firewall, ZoneAlarm, and I check for antivirus updates
>|DAILY...).
>|
>|Also, your slow shut down is based on using legacy hardware and/or
>|drivers and/or software. My shutdown was screaming fast...under 5
>|secs until I installed my old smartmedia card reader. Now shutdowns
>|take nearly 2 mins...but I won't pay for a new one because this one
>|works for the limited applications.
>|
>|Bottom lines: (1) If you're going to use non XP-certified software,
>|and you're not terribly concerned about maximizing your security
>|model, then you're probably better off using Win 98SE. (2) If you're
>|using Win XP and going to use log-on as an administrator all the
>|time--you probably don't need Win XP Pro because you're not
>|fanatically concerned about enforcing security (my opinion...no flames
>|intended...) (3) Do not, repeat, do not rely on the very limited Win
>|XP firewall. I suggest disabling it altogether and running Zone Alarm
>|(far more comprehensive a solution).
>|
>|Enough for now. Good luck with your tough decision.
>
>Thanks for all of this. My "old" 98SE was slowing down from bloat and
>I figured the best way to avoid losing stuff was a second hard drive
>and a new install. Since I was going to the trouble, I thought XP
>might be the way to go, however, the learning curve and some of the
>things you bring up suggest that since 98 was serving my needs before
>it might be best to stick with it.
>
>73,
>
>Wes

362. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 03:27:03 UTC
From: "Ron P." <rpackerii@neo.rr.com>
Message-ID: <ba7o9.48666$Cz.6229578@twister.neo.rr.com>
Source record: 133499

Nope, a typical battery uses 900CCA (Cold Cranking Amps), or around 850 nominal. Take that times 2...1700. He said he has 2 batteries/alternators, probably 100 amps a piece, if it was my 4x4 (my Bronco has a 1000 CCA battery, and a 100 Amp alternator).

Ron - kc8ulu

"John Franklin" <jpfrank@peoplepc.com> wrote in message news:uq19ra5f2ri1ff@corp.supernews.com...
>
> Make sure the block can't be messed with
> > though, since you have around, and this is a guess, 1600 amps or so
> running
> > back there, since you said you have a dual batt., and I am guessing they
> are
> > in parrallel.
>
>
> Don't you mean 1600 WATTS? 1600 amps is getting into the kind of
current
> draw that a SUBMARINE uses.....
>
>
> Pat
>
>

363. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 03:29:28 UTC
From: George Kinzer <horseflygk@worldnet.att.net>
Message-ID: <sc7o9.6377$k_2.475705@bgtnsc05-news.ops.worldnet.att.net>
Source record: 133502

dont forget the antenna hook-up...

--
If first you don't succeed, do the same thing again...see what happens

�.��� ��)) -:�:-
�.�� .����))
George Kinzer
((��.�� ..��
-:�:- ((��
�.�

Those who want to be successful, will find a way,
those that don't, will find an excuse!

364. Re: Broken glass insulator. Sob!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 03:31:28 UTC
From: George Kinzer <horseflygk@worldnet.att.net>
Message-ID: <ke7o9.6379$k_2.475453@bgtnsc05-news.ops.worldnet.att.net>
Source record: 133503

echo...hum

--
If first you don't succeed, do the same thing again...see what happens

�.��� ��)) -:�:-
�.�� .����))
George Kinzer
((��.�� ..��
-:�:- ((��
�.�

Those who want to be successful, will find a way,
those that don't, will find an excuse!

365. Re: Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 04:09:23 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA108F3.75564718@ieee.org>
Source record: 133504

Larry Johnson wrote:
> Which model Screwdriver was he using? Looks like there are lots of
> manufacturers out there, all claiming that their antenna is better than
> everyone else's.

I don't remember his brand but my HS-1600 from High Sierra placed
near the top in recent shootouts. I have the three foot RV extension
on the bottom and a large top hat on top.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

366. Re: Lew McCoy Zepp question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 04:15:36 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA10A68.9CD4791D@ieee.org>
Source record: 133505

Ron H wrote:
> I am using a modified Zepp ala Lew McCoy with a total 0f 208 feet of wire,
> center fed with 450 ohm ladder line into a balun. Question: Does the length
> of the coax run from the balun to the tuner matter? Explain?

Of course it matters. The length of the 450 ohm ladder line also matters.
The length of the 450 ohm ladder line plus the feedpoint impedance controls
the impedance seen by the coax which sets the SWR on the coax.

You can see for yourself by downloading the free demo version of EZNEC.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

367. Re: Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 04:22:30 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA10C06.3FD5582C@ieee.org>
Source record: 133506

Ken N4VSD wrote:
> At what elevation angles and azimuths were the field strength test made?

We measured the ground wave about a quarter mile away.

> Were all of the antennas tested on the same mount to compensate for
> grounding differences?

Nope, we were not testing antennas. We were testing antenna systems.
Good grounding was an asset.

> A screwdriver on top of a motor home will probably
> knock the pants off a mobile whip mounted on the bumper of a Geo Metro!!!

Full sized pickups did very well. I drive a GMC.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

368. Re: Fritzel FB53 information please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 04:48:29 UTC
From: Peter Thoms <048191-0001@t-online.de>
Message-ID: <anr91o$8b2$04$1@news.t-online.com>
Source record: 133509

<ajhuddle@inet.uni2.dk> schrieb in im Newsbeitrag:
4jirpuodj1ac97gqn14tacr2a1sul6a719@4ax.com...
> Hello!
>
> I am rebuilding my old Fritzel FB53 (5 band tribander) and I will be
> cleaning up all the traps so I wondered whether anyone has any
> information about this antenna. I have the dimensions but I wondered
> whether the traps should be tuned to any particular frequncies to
> achieve maximum performance.
>
> Any information would be warmly appreciated.
>
> Kindest regards
>
> Andrew G3WZZ / OZ1XJ
>

Hi Andrew,

today http://www.hofi.de/ produce Fritzel-Antennas. Try to ask there.

vy 73 Peter

369. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 05:10:44 UTC
From: Zoran Brlecic <WA7AA@attbi.com>
Message-ID: <3DA1174F.4010805@attbi.com>
Source record: 133507

George Kinzer wrote:
> six gauge aught to do fine, for the extent of current draw, your amp will
> draw about 40 amps , yo radio bout
> 10 amps..a single 100 amp alternator is really all you need (like the ones
> in ambulances) dont know what school
> the gentleman went to implying the amplifier will draw 80amps, lets
> see...500/13.8 isnt near 80, more like 39 amps.
> (i use ohms law)

Too bad there are other laws that apply in this case as well, like the class AB power amplifier efficiency law and such. According to these, in order to get about 500W out, your input power must be around 850-1000W, depending on the frequency.

Therefore, the 80A figure is fairly accurate, not to mention that the IC-706 draws 20A in transmit, per manufacturer's specifications.

Apparently, the gentleman in question didn't go the same school you went to.

73 .... Zoran WA7AA

370. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 05:29:43 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <anr647$c4v$0@208.206.142.74>
Source record: 133508

Richard Clark wrote:
>
> On 6 Oct 2002 19:47:09 GMT, Dick Carroll <dixie@townsqr.com> wrote:
>
> >
> >
> >Richard Clark wrote:
> >>
> >> Abandon the Win98 path entirely and go for Win2000 (NT derivative).
> >>
> >
> >
> > Rich, where does ME fit into this picture? Is it a home version of
> >2000? Or a different beast entirely?
> >
> >Dick
>
> Hi Dick,
>
> That abomination is in the Win98 family. I used to crow how good the
> system recover tools were, because I used them every day - even that
> statement became false (it flat refused to recover to the fresh
> re-install I performed several days before - that I called on that
> function that soon is telling).

Tnx, Rich. Last January I bought a new Compaq laptop that had ME installed and which came with the WIN XP Home edition upgrade CD. Based on what I had seen and heard of XP, and the fact that I had some peripherals with no new XP drivers, I instinctively decided not to install the XP upgrade and still have not.

ME is no bargain, in fact it's a real klutz at times, and I think when I finally have to do something radical to get it to work at all- that's coming soon I fear-, I'll just go back to 98 SE.
I bought one of the very last copies of 98 SE (Second Edition) shortly after XP came out. And I note that Leo Laporte of Tech TV (formerly ZDTV) who seems to be about as knowledgeable on operating systems as anyone, once said on his program that 98 SE was the most stable Win OS out there, outside NT. That was nearly a year ago and maybe he's changed his mind by now, but I think I'll stay with 98 SE since it has been shown as one of the more reliable of the Windoze stable, and I have it already.

XP and all the baggage it carries just doesn't appeal to me. I don't need to be tied (chained?) to Microshaft's apron strings, and having to

dial them up and plead for permission to use XP again and again to infinity after every reinstall just doesn't trip my trigger.

BTW, that same laptop seems to eat resources at a prodigious rate nowadays. Even stalls at times because of it, demanding a reboot. Did I pick up a virii or worm that's doing that? Norton was dumb if so.
I had a couple pretty sophisticated memory-hogging games on it for my little grandson to play when he was here visiting, but I uninstalled them but it didn't help (it's 128meg). Still loads the system down after it has been in use awhile. And Norton Antivirus 2002 got balky and went into some kind of a run-forever loop I'd never seen before, so I uninstalled it, intending to reinstall, but now it won't let me. Says something like "System administrator has determined that this install is prohibited" or words to that effect. I'm the 'system administrator' and I did no such thing.
Is it that there are now some very sophisticated virus writers out there, or just the nature of the Windoze beastie(s)? Wats going on? Is it time to bite the bullet and go for a 'format C:\'?

Dick

371. Re: Portable Magloop from 80-6m (also working on 2m)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 06:26:03 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <anr9dqmhh1@paris.btinternet.com>
Source record: 133510

> I wonder how they get 8 kHz BW out of the thing on 80 meters? I would
> expect more like 2.5 kHz.
>
> It also won't be very efficient on 80 meters, something in the 1 percent
> neighborhood.

==========

Just visited the site. Very nice photographs.

The write-up has a bafflegab content. Like the CFA it is suggested this very small loop does not work according to conventional theory.

It's easy to get a large bandwidth with such a high loss in the loop. It makes a virtue out of a vice.

The HF loop diameter is 3 feet. Loop conductor is coax braid. The tuning capacitors are ordinary 2-gang receiving types.
Will withstand a few hundred volts rather than a few thousand. Estimated radiating efficiency is unavoidably worse than 0.1 percent on 80m.

Virtues of the ideal radiation pattern will likely be spoiled by radiation from the feedline.

But as always, the German mechanical construction is a joy to behold. Excellent portabilty. Carried on a bicycle. But no miracles can be expected radiowise.

Reg

372. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 07:28:57 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <aqd2qu4nudrgp2t55nnqlmkqbmi5kvts45@4ax.com>
Source record: 133511

On Mon, 07 Oct 2002 03:26:51 GMT, riffin-rich
<riffin-rich@cantspam.me> wrote:

|Wes, If you do go back to Win 98, consider backing up your data to the
|second hard drive, formatting your Win98 hard drive, and starting
|over...load the Win 98 OS onto a cleanly formatted disk. Then be sure
|to run all the MS updates/service packs...ensure you've got current
|antivirus protection and the most current ZoneAlarm firewall...a new
|release of the firewall came out about a month ago...
|
|Also, I didn't mention that you could also consider running a
|dual-boot system...but that's another whole can of worms. Good luck
|with whatever you decide. Take care...

I've tried the dual boot on my new dual partitioned drive. AS you say
a can of worms...still can't make it work.
|

373. cutting down 2m antenna for marine VHF band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 07:53:36 UTC
From: wf3h@ptdnospam.com
Message-ID: <3da13bff.149233856@news.ptdprolog.net>
Source record: 133512

I have a 5/8 wavelength antenna, mag mount, cut for 2m ham band. Is it possible to cut this for the 157 MHz marine band by shortening the whip? Don't want to ruin it if this won't work....

374. Re: Broken glass insulator. Sob!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 10:10:09 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0210070210.b643658@posting.google.com>
Source record: 133513

Hi Terry,
I think a pure epoxy glue or epoxy filled with glass powder might cure your problem, unless you are going to use the antenna for QRO. Take care to avoid epoxy filled with metal powder, zinc oxide etc.

BR from Ivan

375. Re: Lew McCoy Zepp question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 10:52:20 UTC
From: KC1DI <elbc2@gwi.net>
Message-ID: <dmp2qu4tfv7v8fda1egi0murkk3pko96iu@4ax.com>
Source record: 133514

On Mon, 07 Oct 2002 00:25:27 GMT, "Ron H" <blah@attbi.com> wrote:

>I am using a modified Zepp ala Lew McCoy with a total 0f 208 feet of wire,
>center fed with 450 ohm ladder line into a balun. Question: Does the length
>of the coax run from the balun to the tuner matter? Explain?
>
>K3PID

YES, it matters-- as a general rule you should keep the coax in such a
setup as short as possible (between the balun and tuner.) and use the
best coax for the purpose you can find . hard line is good. try to
keep it under 10 or so feet. The best way is to run the balanced line
all the way to the tuner.

73 Dave

376. Re: Portable Magloop from 80-6m (also working on 2m)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 11:01:27 UTC
From: GaryD <GaryD@home.euro>
Message-ID: <8Qdo9.723$5t4.74399@newsfep1-win.server.ntli.net>
Source record: 133515

Frank Stevens wrote:

> I ordered the 100W-Version today to be mobile on my bike.
>
> They have the antenna in stock and will sent it by UPS-Express.
>
> So I expect the loop being here in 2 days.
>
> I will let you know my results.
>
>
> Bye Frank

Frank,

I'd be very interested in hearing your results as well.

GaryD

377. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 12:13:23 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA17A63.8DFE2DD2@ieee.org>
Source record: 133516

Zoran Brlecic wrote:
> ... the
> IC-706 draws 20A in transmit, per manufacturer's specifications.

Average current for SSB is not that high. I've never blown the
20 amp auxiliary fuse in my pickup and I run my screwdriver
motor from that same fuse.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

378. Touch Switch QRM

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 12:40:57 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <vhfo9.11498$34.1321700@newsfeed.slurp.net>
Source record: 133517

Are there any fixes to kill the QRM radiated by a small lamp controlled by a touch switch (other than unplugging it)? I have one that generates noise in the MW/HF bands even when it is off.

379. What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 12:41:43 UTC
From: cprstn54zz@att.net
Message-ID: <3da17ef4.528396703@news-server.optonline.net>
Source record: 133518

I am putting together a backwoods CW QRP NVIS 40M rig that will run at 3 watts.

The antenna will be a half-wave dipole 20 ft up. If I can't find two trees, it will be an inverted-V with the center up 23 ft on a makeshift pole. What is the lightest gauge wire I can use for my dipole that will perform? Do dipoles become less effective as the gauge goes up? Is efficiency a function of wire surface area?

Some say a slightly longer parasitic wire 20 ft below the dipole (in my case, on the ground) will significantly improve NVIS performance. Does the guage of this reflector wire matter?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

380. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 12:52:19 UTC
From: Bob Miller <bamiller@texas.net>
Message-ID: <QYKhPa6h9wOQfd6Ppc5YnUtg91jx@4ax.com>
Source record: 133419

"Ron P." <rpackerii@neo.rr.com> wrote:

>Nope, a typical battery uses 900CCA (Cold Cranking Amps), or around 850
>nominal. Take that times 2...1700. He said he has 2 batteries/alternators,
>probably 100 amps a piece, if it was my 4x4 (my Bronco has a 1000 CCA
>battery, and a 100 Amp alternator).

Maybe something is getting lost here. The batteries may have 1700 amps capacity,
but the radios will not be drawing 1700 amps. Maybe upwards of 20 amps for the
706, and 4 or 5 times that for the amplifier.

Bob
k5qwg

>
> Ron - kc8ulu
>
>"John Franklin" <jpfrank@peoplepc.com> wrote in message
>news:uq19ra5f2ri1ff@corp.supernews.com...
>>
>> Make sure the block can't be messed with
>> > though, since you have around, and this is a guess, 1600 amps or so
>> running
>> > back there, since you said you have a dual batt., and I am guessing they
>> are
>> > in parrallel.
>>
>>
>> Don't you mean 1600 WATTS? 1600 amps is getting into the kind of
>current
>> draw that a SUBMARINE uses.............
>>
>>
>> Pat
>>
>>
>

381. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 13:20:53 UTC
From: derswede@aol.comspam.com
Message-ID: <20021007092053.09024.00000542@mb-ba.aol.com>
Source record: 133420

> ME is no bargain, in fact it's a real klutz at times, and I think when
>I finally have to do something radical to get it to work at all- >that's
coming soon I fear-, I'll just go back to 98 SE.

Heh...."ME...the Mistake Edition, soon to be crashing a computer near you."
Stay away from it!

I've switched to Linux (bit of a learning curve) and ended up with a Mac I
bought at Shelby hamfest. FWIW, I LIKE the weird colored thing! Works great
(runs the OS9, not the Unix based X yet, but I may try it) and there IS ham
software out there for both platforms. The 2 ghz Wintel platform that I still
have doesn't really outperform either of the boxes, and it still crashes even
with XP installed (and the Microsoft techs haven't a clue..ran fine w/NT, but
XP doesn't want to play). Sigh...think I'll go play with my radios.....6
meters seems to be opening up....tried for an Argentine station yesterday, but
couldn't get thru the pileup.

A
KG4GSC

382. Re: cutting down 2m antenna for marine VHF band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 13:35:34 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DA18D14.D0AD01D5@tampabay.rr.com>
Source record: 133421

i would suggest getting a replacment whip and cut it down to test it that way if it doesnt work you still have the old whip to reinsert and go back to using it as a ham antenna

wf3h@ptdnospam.com wrote:

> I have a 5/8 wavelength antenna, mag mount, cut for 2m ham band. Is it
> possible to cut this for the 157 MHz marine band by shortening the
> whip? Don't want to ruin it if this won't work....

383. Re: cutting down 2m antenna for marine VHF band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 14:46:22 UTC
From: wf3h@ptdnospam.com
Message-ID: <3da19d0e.174019026@news.ptdprolog.net>
Source record: 133422

On Mon, 07 Oct 2002 13:35:34 GMT, Dennis Kaylor
<k4oxg@tampabay.rr.com> wrote:

>i would suggest getting a replacment whip and cut it down to test it that
>way if it doesnt work you still have the old whip to reinsert and go back
>to using it as a ham antenna
>
>wf3h@ptdnospam.com wrote:
>
>> I have a 5/8 wavelength antenna, mag mount, cut for 2m ham band. Is it
>> possible to cut this for the 157 MHz marine band by shortening the
>> whip? Don't want to ruin it if this won't work....
>
good idea, dennis...thanks much....

384. Re: Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 14:51:22 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <Kbho9.50592$VQ2.10581821@twister.midsouth.rr.com>
Source record: 133423

Hello,

One other thing... While camping or at a rest stop I'll attach a random piece of wire (strung between two trees) to the end of the whip. Voila!! Instant base station!

Ken

"Ken N4VSD" <REMOVECAPSn4vsd@yahoo.com> wrote in message news:FOYn9.50464$VQ2.10205473@twister.midsouth.rr.com...
> Hello,
>
> While I do not have "empirical" evidence concerning the efficiency of
> screwdriver antennas... Can share some anecdotal evidence... A top loaded
> mobile antenna (Hustler) or whip using an automatic tuner is the best way to
> go. A screwdriver antenna is a very lossy device and your radiation
> efficiency will suffer. Ask one of the screwdriver antenna manufacturers
> about their field strength measurements versus a top loaded hustler. The
> usual response is... you can tune it from inside the car, I've worked a 100
> countries, (those of us with the more efficient mobile antennas have
> probably worked 300 in the same amount of time!) and look at the wonderful
> SWR!! Sure, the SWR is great... So is the SWR into my dummy load. I
> would recommend spending a few extra dollars and investing in an automatic
> tuner with a mobile whip. In the long run this arrangement is probably more
> cost effective (screwdrivers are prone to breaking due to vibration) and a
> much more efficient than a screwdriver. And, a much safer means of
> operating while driving. Our eyes should be on the road not the swr meter.
> If the budget cannot support an automatic tuner, purchase a top loaded
> mobile whip for two or three of your favorite bands. If you can stand ugly
> the Texas Bugcatcher is an excellent choice as well. It's fun having the
> guy at the other end give you an excellent signal report and then tell him
> your mobile. Whatever antenna you buy be sure to have an excellent
> grounding system and the base of the antenna as high on the car as possible.
> The two worse culprits for a bad mobile install are poor grounding and the
> antenna in an impossible place to work efficiently.
>
> Ken N4VSD
>

> "Leland C. Scott" <no-spam@junk-mail.net> wrote in message
> news:CIKcnSr07szkJD2gXTWcqg@News.GigaNews.Com...
> > Is there any information available regarding the analysis of the
> > Screwdriver type of antenna some where? For example how much does the
> > loading coil contribute to the total antenna radiation, the radiation
> > resistance of the loading coil, the skin effect losses etc.
> >
> >
> > --
> > Leland C. Scott
> > KC8LDO
> >
> > ARRL Member
> > NCI Member
> >
> >
>
>

385. Re: Broken glass insulator. Sob!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 15:10:19 UTC
From: Sparks W4EAS <sparksw4eas@mindspring.com>
Message-ID: <3DA1A3DB.1CFD@mindspring.com>
Source record: 133424

Hummmm... I have used the VERY Small tubes of Super glue in liquid form to repair very large bread slicer variable caps.... Never had one break yet.... IF it is porcillen or however the educated folks spell it, I believe you might have a good chance of effecting a repair. 73 Sparks W4EAS

386. multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 15:16:55 UTC
From: Henrik <henrik>
Message-ID: <3da1a565$0$84316$edfadb0f@dspool01.news.tele.dk>
Source record: 133425

For electrical performance of wire antennas, should one prefer multi stranded (and isolated) wire, with a higher surface area , hence lower resistance for the high frequency current, or massive enamelled copper wire, if the cross sections are equal?

And is the answer the same if focus is mechanical strength and ageing/corrosion?

Rgds
Henrik

387. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 15:30:01 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <jv93qu4jo113mvje39oackapm9brbthsvb@4ax.com>
Source record: 133426

On 7 Oct 2002 05:29:43 GMT, Dick Carroll <dixie@townsqr.com> wrote:

> Is it that there are now some very sophisticated virus writers out
>there, or just the nature of the Windoze beastie(s)? Wats going on? Is
>it time to bite the bullet and go for a 'format C:\'?
>
>Dick

Hi Dick,

There comes a time in every....

Yeah, format C:\ and get back on the treadmill.

One of the notable failures of XP is that some accessories vendors
refused to write XP drivers for their gear - notably HP for their
printers up until recently.

73's
Richard Clark, KB7QHC

388. Re: A portable antenna for DXing ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 16:04:26 UTC
From: Tom Ayers <kg6mvb@nospam.qsl.net>
Message-ID: <3DA1B08A.52D462F3@nospam.qsl.net>
Source record: 133427

Take a look at http://www.g4fon.co.uk/

I haven't tried it yet myself, but it's on the list of things I need to try...

Tom

Thierry wrote:
>
> Hi,
>
> I am searching a portable antenna to use :
> - 1st, abroad, in hotels (on the balconery, through the window, in the
> field, etc)
> - 2d, also when there are too much QRM at home and I want to work in
> "emergency situations" in a quiet spot outdoor, as they are many in LX
> or south ON.
> and mainly on bands from (40m) 20m to 10m.
>
> There are not many portable antenna (commercial) on the place :
> - MP-1, http://www.superantennas.com/___Products/___products.html
> - B&W AP10, http://www.bwantennas.com/ap10a.htm
> - and last but not least the versatile buddipole,
> http://www.buddipole.com/
> NB. The buddipole exceed twice the price of the 2 first but here is
> not the question.
>
> What are your experience of these whips and ï¿½ verticadipole ï¿½ as I
> qualify the last one ?
> Some say the MP-1 is better than the AP-10 for Dxing
> As SWL (but soon licensed I hope) should it be more interesting for
> Dxing in the field or in hotels to buy a MP-1 or the latest, or both
> are useless (I don’t think so) and there are other solutions
> much more efficient, then which ones ?
>
> (I hope you will confirm the interest of the buddipole, it "looks"
> great !, and seems to use very nice material - it can for what it
> cost, $200-350+ according the accessories... -).
>
> 73
> Thierry
> ONL5183
> http://www.astrosurf.com/lombry/menu-qsl.htm

--
Money is no object to me...

I have no money, therefore it is not an object.

389. Re: cutting down 2m antenna for marine VHF band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 16:51:41 UTC
From: "j. keith carter" <j.keith.carter@sympatico.ca>
Message-ID: <3DA1BB9D.6EC82CC1@sympatico.ca>
Source record: 133428

Hi: The typical 5/8 2 meter mag mount has a base matching coil which is tuned to the design frequency. This may prevent the large frequency QSY that you propose. However, that being said, try a stiff piece of copper wire to see your VSWR. Cheaper than buying a steel whip. Keith, VE3JKC.

wf3h@ptdnospam.com wrote:

> I have a 5/8 wavelength antenna, mag mount, cut for 2m ham band. Is it
> possible to cut this for the 157 MHz marine band by shortening the
> whip? Don't want to ruin it if this won't work....

390. Re: Broken glass insulator. Sob!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 17:00:16 UTC
From: "j. keith carter" <j.keith.carter@sympatico.ca>
Message-ID: <3DA1BDA0.CC3C56B@sympatico.ca>
Source record: 133429

Terry; I have a 4 inch long, 1 1/2 inch dia ribbed ceramic with brown glaze (probably antique) that I'll trade for a 4 pound lobster. (hi hi just kidding) Just for postage. Keith, VE3JKC.

Terry wrote:

> Sob! (That's as in 'weep', not S.O.B as in "That SOB just .... ")
> Although it would be an appropriate epithet in this case!
>
> Had receiving antenna ready to go up and today found that someone
> must have dropped the nice eight/nine inch transmitting quality
> clear glass strain insulator (not an egg insulator) and it's
> cracked in two! Nice 'clean' break as it were, matches perfectly.
>
> May be this is a stupid question; but is there any way, using
> today's glues, say, that I can rejoin the two broken faces
> together? Or am I just kidding myself? And it will come apart
> during the next wind storm?
>
> Beg the indulgence of the group. Any advice pro/con welcomed.
> TIA.
>
> Terry in windy eastern Newfoundland Canada.

391. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 17:42:30 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <NrOdnZL3EffsWjygXTWcoA@News.GigaNews.Com>
Source record: 133430

Henrik,

Supposedly it does not matter whether it is solid or stranded; although theory would suggest that stranded is better because of skin effects. I use #14 insulated stranded wire. This wire, less insulation, is a bit over 1.8 mm in diameter. The black insulation makes it almost invisible unless you look for it. Blue is good also, but not white and red. What I avoid at all cost is stuff called copperweld; it looks like hell, because it never straightens out. If you are concerned about corrosion, cover any splices with heat shrink tubing. My guess is that stranded wire is less likely to break from wind motion. It will probably stretch more, but I don't know that solid wire would not stretch also.

Tam/WB2TT

"Henrik" <henrik> wrote in message
news:3da1a565$0$84316$edfadb0f@dspool01.news.tele.dk...
> For electrical performance of wire antennas, should one prefer multi
> stranded (and isolated) wire, with a higher surface area , hence lower
> resistance for the high frequency current, or massive enamelled copper
wire,
> if the cross sections are equal?
>
> And is the answer the same if focus is mechanical strength and
> ageing/corrosion?
>
> Rgds
> Henrik
>
>
>

392. Mixing galvanized and stainless hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 17:43:32 UTC
From: ae517@FreeNet.Carleton.CA
Message-ID: <ansh44$la3$1@freenet9.carleton.ca>
Source record: 133431
Body handling: HTML body converted to readable text

Now that I've poured the concrete for my tower base, I'm
hoping to erect my tower soonest.

I have some of the original hardware that came with the antenna
and bought some new, as well. The bolts are galvanized
and are marked with a 'P'. Is there a good website that explains
this sort of nomenclature?

I also have some stainless hardware of the same size, the bolts
being marked with 'HHW' or a triangle. Can I mix stainless hardware
with galvanized hardware?

tnx de va3rr/aa8lu

--
73 de va3rr/aa8lu
http://www.qsl.net/va3rr

393. Re: Mixing galvanized and stainless hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 18:19:45 UTC
From: Henrik <henrik>
Message-ID: <3da1d042$0$84311$edfadb0f@dspool01.news.tele.dk>
Source record: 133432
Body handling: HTML body converted to readable text

"Russ Renaud" wrote in message
news:ansh44$la3$1@freenet9.carleton.ca...
> Now that I've poured the concrete for my tower base, I'm
> hoping to erect my tower soonest.
>
> I have some of the original hardware that came with the antenna
> and bought some new, as well. The bolts are galvanized
> and are marked with a 'P'. Is there a good website that explains
> this sort of nomenclature?
>
> I also have some stainless hardware of the same size, the bolts
> being marked with 'HHW' or a triangle. Can I mix stainless hardware
> with galvanized hardware?
>
>
> tnx de va3rr/aa8lu
>
> --
> 73 de va3rr/aa8lu
> http://www.qsl.net/va3rr

Good quality stainless is inert towards other materials in respect to
corrosion, and you can mix it with other materials, without any adverse
effects.

H.

394. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 18:37:37 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <Rvko9.12656$525.784832@twister.southeast.rr.com>
Source record: 133433

Thanks, Bert.

Yeah, I'm in and out of Ham Radio so much. Sometimes the obvious needs rehashing if you never stick with anything very long; I made it through school with out the Ritalin. That was in the old days....

73's,
Alan
--
Windsurfing Club: http://www.ibscc.org
Homepage: http://pw1.netcom.com/~alannc44/qsl.htm

"Bert Craig" <wa2si@arrl.netNOSPAM> wrote in message
news:V2kn9.8405$GF5.207759@news4.srv.hcvlny.cv.net...
> "Alan" <alannc44@{nospam}ix.netcom.com> wrote in message
> news:Hujn9.6594$s5.199871@twister.southeast.rr.com...
> > I feel like an imbecile asking this question, especially after having
been
> > in and out of Ham Radio for years, but why is it a 450 or 600 ohm
> > transmission line 'conveys' energy better and more efficiently than a
line
> > with less resistance?
> >
> > Alan (shying away from shame now that he reveals his ignorance)
> >
> > --
> > Windsurfing Club: http://www.ibscc.org
> > Homepage: http://pw1.netcom.com/~alannc44/qsl.htm
>
> Nonsense, asking questions is nothing to feel ashamed of. If that were
true,
> I'd be inducted into the 'Hall of Shame.' <ggg> I believe the correct
answer
> (Please correct me if I err, group.) is that the 450 Ohms & 600 Ohms are
> measurements of impedance rather tthan resistance. It's important to match
> the impedance to allow the full transfer of energy wrt an antenna system.
> Hope that helped some. Take care now. :-)
>
> --
> 73 de Bert
> WA2SI
>
>

395. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 18:45:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uq3lig6mla9vcf@corp.supernews.com>
Source record: 133434

Stranded wire doesn't have greater surface area. The current flows on
the outside of the whole wire, not the outside of each strand.
Consequently, stranded wire has very nearly the same RF resistance as
solid wire with the same diameter.

I'll let people with more experience comment on the mechanical tradeoffs.

Roy Lewallen, W7EL

Henrik wrote:
> For electrical performance of wire antennas, should one prefer multi
> stranded (and isolated) wire, with a higher surface area , hence lower
> resistance for the high frequency current, or massive enamelled copper wire,
> if the cross sections are equal?
>
> And is the answer the same if focus is mechanical strength and
> ageing/corrosion?
>
> Rgds
> Henrik
>
>
>

396. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 18:49:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uq3lpipp8v3s52@corp.supernews.com>
Source record: 133435

You can answer all these questions, and more, quite easily with the free
demo version of EZNEC, from http://eznec.com.

Roy Lewallen, W7EL

Ken wrote:
> I am putting together a backwoods CW QRP NVIS 40M rig that will run at
> 3 watts.
>
> The antenna will be a half-wave dipole 20 ft up. If I can't find two
> trees, it will be an inverted-V with the center up 23 ft on a
> makeshift pole. What is the lightest gauge wire I can use for my
> dipole that will perform? Do dipoles become less effective as the
> gauge goes up? Is efficiency a function of wire surface area?
>
> Some say a slightly longer parasitic wire 20 ft below the dipole (in
> my case, on the ground) will significantly improve NVIS performance.
> Does the guage of this reflector wire matter?
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

397. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 19:15:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uq3nap9ol01rcd@corp.supernews.com>
Source record: 133436

Actually, SpamCop provides two services. One is to identify the source of email and provide spam reporting addresses for both the source and for web sites advertised in the spam. The other is a mail forwarding service which holds mail from sources known to be spammers and forwards the remainder to you.

Like all tools, SpamCop requires a little care and intelligence to use. As David ex-W8EZE reported, some people are too lazy or just don't pay enough attention to use the reporting tool properly. I agree with him that those people shouldn't. Spammers, for example, sometimes include the recipient's email address in the email, or occasionally an innocent party. The user has to actually look at the spam and decide which included email addresses or web site should receive the report and which shouldn't. People who aren't willing or able to put forth this amount of effort or thought shouldn't use the SpamCop reporting feature, just like there are some people who shouldn't use chain saws or drink hot coffee.

I haven't used the mail forwarding service Ian refers to. (I believe it's only part of the paid service, which I do subscribe to.) I do know, however, that it holds all incoming email, so you can view it at your convenience and retrieve any that might have been held appropriately.

I'll personally continue to do whatever I can to make the spammers' lives as difficult as possible. And I hope the effort plays one small part in reducing your spam as well as mine.

Roy Lewallen, W7EL

Ian White, G3SEK wrote:
> Roy Lewallen wrote:
>
>>
>> And now that you've signed up for SpamCop, you can do us all a favor
>> by using it to report all the spam you receive.
>>
>> Folks, it's the Wild West out here in cyberspace. There're no lawmen
>> looking out for you, so you've gotta wear your own six-gun. And never
>> sit at the bar with your back to the door.
>>
> Please be careful about using SpamCop as your bodyguard - it's too
> trigger-happy, and some of the ricochets can come right back at you.
>
> One of the things SpamCop can do is block mail from IP addresses that
> have been used for spamming. "Great!" you say... but what actually happens?
>
> If some idiot tries to use *your* ISP to send spam, your ISP can only

> shut them down after the offence has been committed (or is in progress).
> Some spam will get out, and if SpamCop notices, it will then target
> *all* mail from the offending IP address. But that address is usually an
> outgoing mail server which is being shared among all of your ISP's
> customers - including *you*.
>
> So any of *your* outgoing messages that happen to be routed through that
> server will not reach anyone who is "protected" by SpamCop. It takes
> several days before a timer inside SpamCop graciously decides to
> "forgive" your ISP.
>
> IMO, this particular cure is worse than the original problem.
>

398. Re: Broken glass insulator. Sob!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 19:19:10 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA1DE2E.B322D15@ieee.org>
Source record: 133437

Sparks W4EAS wrote:
> Hummmm... I have used the VERY Small tubes of Super glue in liquid form
> to repair very large bread slicer variable caps.... Never had one break
> yet.... IF it is porcillen or however the educated folks spell it, I
> believe you might have a good chance of effecting a repair. 73 Sparks

I doubt that glue alone will hold in tension. However, how about glue
plus a tiewrap through the holes. That should help keep the glue in
compression. Use a large black tiewrap tensioned as tightly as possible.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

399. Re: Mixing galvanized and stainless hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 19:26:56 UTC
From: ae517@FreeNet.Carleton.CA
Message-ID: <ansn60$t38$1@freenet9.carleton.ca>
Source record: 133438
Body handling: HTML body converted to readable text

Russ Renaud (ae517@FreeNet.Carleton.CA) writes:
>
> I have some of the original hardware that came with the antenna
> and bought some new, as well. The bolts are galvanized
> and are marked with a 'P'. Is there a good website that explains
> this sort of nomenclature?

Oh yes, both the stainless and the galvanized bolts have 3 'hash marks'
equally spaced on the bolt head. Does this mean they have the same
strength?

tnx agn de Russ

--
73 de va3rr/aa8lu
http://www.qsl.net/va3rr

400. Re: Caution - Virus alert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 20:07:49 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-0710021307490001@bni030qny8kc.bc.hsia.telus.net>
Source record: 133440

In article <uq3nap9ol01rcd@corp.supernews.com>, Roy Lewallen
<w7el@eznec.com> wrote:

> People who aren't willing or able to put forth this amount of
> effort or thought shouldn't use the SpamCop reporting feature, just like
> there are some people who shouldn't use chain saws or drink hot coffee.

Agreed, but the problem here is that when the incompetent do the
equivalent of dropping their chain saws or spilling their hot coffee, it's
others who get cut or burned.

David, ex-W8EZE

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

401. Re: Broken glass insulator. Sob!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 20:09:34 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-0710021309340001@bni030qny8kc.bc.hsia.telus.net>
Source record: 133439

In article <3DA1DE2E.B322D15@ieee.org>, CAM <Cecil.A.Moore@ieee.org> wrote:

> Sparks W4EAS wrote:
> > Hummmm... I have used the VERY Small tubes of Super glue in liquid form
> > to repair very large bread slicer variable caps.... Never had one break
> > yet.... IF it is porcillen or however the educated folks spell it, I
> > believe you might have a good chance of effecting a repair. 73 Sparks
>
> I doubt that glue alone will hold in tension. However, how about glue
> plus a tiewrap through the holes. That should help keep the glue in
> compression. Use a large black tiewrap tensioned as tightly as possible.

And how good is the high-frequency insulation of the tie wrap, at the end
of a dipole?

David, ex-W8EZE

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

402. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 20:11:28 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ansppg$1qi$1@venus.btinternet.com>
Source record: 133441

> You'll find a lot more about transmission lines in the ARRL Antenna Book
> or ARRL Handbook.

==========

Yer doin fine. An even better, shorter, bit of learnin can be found in any elementary booklet on transmission lines, free at public technical libraries. Nobody has a monopoly.

403. Re: Portable Magloop from 80-6m (also working on 2m)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 20:14:32 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210071214.1f4a760a@posting.google.com>
Source record: 133442

Personaly I find it very encouraging to see somebody else showing
that a small 'loop' can be resonant down to 80 meters.
Actually was working barefoot on the 160 band the other day
on my 'loop' and getting good signal reports. Even a guy named 'doc'
was hearing me fine. Reg, my plate capacitor hasn't arced over yet
and I have inputed a 1 KW so I don't believe 'all is yet known' about
the 'loops' abilities.
I suppose it is possible to get 'good' signal reports
on 160 with less than a watt (1 % efficiency you say) but then I would assume
that the German loop inventor also has done the same.
I think it would be pushing it to describe the loop in the same way
one would describe an E/H considering how many loops are in use today

Art

l"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<anr9dqmhh1@paris.btinternet.com>...
> > I wonder how they get 8 kHz BW out of the thing on 80 meters? I would
> > expect more like 2.5 kHz.
> >
> > It also won't be very efficient on 80 meters, something in the 1 percent
> > neighborhood.
>
> ==========
>
> Just visited the site. Very nice photographs.
>
> The write-up has a bafflegab content. Like the CFA it is suggested this
> very small loop does not work according to conventional theory.
>
> It's easy to get a large bandwidth with such a high loss in the loop. It
> makes a virtue out of a vice.
>
> The HF loop diameter is 3 feet. Loop conductor is coax braid. The tuning
> capacitors are ordinary 2-gang receiving types.
> Will withstand a few hundred volts rather than a few thousand. Estimated
> radiating efficiency is unavoidably worse than 0.1 percent on 80m.
>
> Virtues of the ideal radiation pattern will likely be spoiled by radiation
> from the feedline.
>
> But as always, the German mechanical construction is a joy to behold.
> Excellent portabilty. Carried on a bicycle. But no miracles can be expected
> radiowise.
> ---

> Reg

404. Re: Mixing galvanized and stainless hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 20:19:42 UTC
From: Henrik <henrik>
Message-ID: <3da1ec5c$0$84319$edfadb0f@dspool01.news.tele.dk>
Source record: 133443
Body handling: HTML body converted to readable text

"Russ Renaud" wrote in message
news:ansn60$t38$1@freenet9.carleton.ca...
> Russ Renaud (ae517@FreeNet.Carleton.CA) writes:
> >
> > I have some of the original hardware that came with the antenna
> > and bought some new, as well. The bolts are galvanized
> > and are marked with a 'P'. Is there a good website that explains
> > this sort of nomenclature?
>
> Oh yes, both the stainless and the galvanized bolts have 3 'hash marks'
> equally spaced on the bolt head. Does this mean they have the same
> strength?
>
> tnx agn de Russ
>
> --
> 73 de va3rr/aa8lu
> http://www.qsl.net/va3rr

Sorry,
I have no knowledge of the mechanical strength of your hardware, just
commented on the corrosion, as mixing of adverse metals can shorten life
dramatically.
rgds
H.

405. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 20:37:46 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <ugmo9.17452$bi2.709691@twister.southeast.rr.com>
Source record: 133444

Yes, but you guys cut straight to the chase.

Thanks,
Alan
--
Windsurfing Club: http://www.ibscc.org
Homepage: http://pw1.netcom.com/~alannc44/qsl.htm

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:ansppg$1qi$1@venus.btinternet.com...
> > You'll find a lot more about transmission lines in the ARRL Antenna Book
> > or ARRL Handbook.
>
> ============================
>
> Yer doin fine. An even better, shorter, bit of learnin can be found in any
> elementary booklet on transmission lines, free at public technical
> libraries. Nobody has a monopoly.
>
>

406. Re: Broken glass insulator. Sob!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 20:43:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uq3sg59255h9cf@corp.supernews.com>
Source record: 133445

Another problem with tie wraps (along with most other plastics) is that
they'll deteriorate and weaken from the effect of UV rays.

Roy Lewallen, W7EL

David or Jo Anne Ryeburn wrote:
> In article <3DA1DE2E.B322D15@ieee.org>, CAM <Cecil.A.Moore@ieee.org> wrote:
>
>
>>Sparks W4EAS wrote:
>>
>>>Hummmm... I have used the VERY Small tubes of Super glue in liquid form
>>>to repair very large bread slicer variable caps.... Never had one break
>>>yet.... IF it is porcillen or however the educated folks spell it, I
>>>believe you might have a good chance of effecting a repair. 73 Sparks
>>
>>I doubt that glue alone will hold in tension. However, how about glue
>>plus a tiewrap through the holes. That should help keep the glue in
>>compression. Use a large black tiewrap tensioned as tightly as possible.
>
>
> And how good is the high-frequency insulation of the tie wrap, at the end
> of a dipole?
>
> David, ex-W8EZE
>

407. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 20:51:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uq3str2mcsnca9@corp.supernews.com>
Source record: 133446

One reason I recommended the ARRL publications is that, by and large, the information in them is accurate. Too many of those "elementary booklets" and other books, particularly ones oriented toward beginners, contain information that isn't correct. And unfortunately, someone not well acquainted with the basic principles will have difficulty distinguishing the good information from the bad. If you share Reg's aversion to things American, I'm sure that the RSGB equivalents to the ARRL publications contain information of at least equal quality.

Roy Lewallen, W7EL

Reg Edwards wrote:
>>You'll find a lot more about transmission lines in the ARRL Antenna Book
>>or ARRL Handbook.
>
>
> ============================
>
> Yer doin fine. An even better, shorter, bit of learnin can be found in any
> elementary booklet on transmission lines, free at public technical
> libraries. Nobody has a monopoly.
>
>

408. Hop hop hop...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 21:02:00 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210071302.308c8a7@posting.google.com>
Source record: 133447

Hi,

About waves propagation in the HF spectrum, I have always believed that waves (say the 20m) propagated nearly in straight line (let's speak theoretically), oscillating 1/20 "mega times" per seconds on its path between TX and RX. Its wavelength being of 20 m long, on a distance of 100 m (300') there is 5 wavings.
If it was a direct wave it should arrive to me without the least miss, even if I move 10 m or 100 m away as this wavelenght is rather long versus i.e. Ghz and is quasi insensible to obstacles.

But it seems this far to be the way they propagate in the field... Sometimes I wonder to not be able to listen OM living 100 or 500 km away as I hear without problem others OM living at the same distance in the opposite direction or their correspond living some 100 km away from them.

According a friend OM, this is "normal". A 20m wave for example does not propagate as I stated above. In fact such a wave propagates doing huge "hops", making jumps on the ground or via the ionospheric layers : dong, dong, dong, dong... ;-), a true marsupilami ! I don't remember the length of each jump but this is well above a few hundreds meters if not some km each, whatever the HP frequency.

Do you confirm this mode of propagation of HF waves, doing jumps of several km maybe, even if the wave itself is shorter ? What could explain that we sometimes cannot hear a local station or even a DX ? (I do neither speak about the skip distance - that doesn't seems to be the correct explanation - nor the propragation via the ionospheric layers, wherein I beleive such "hops" could exists too between layers, to confirm).

If it is true what medium or energy "supports" such hops ? How such waves change their propagation mode to jump this way ? A very strange affair that escape me ...

Thierry
73
http://www.astrosurf.com/lombry/menu-qsl.htm

409. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 21:13:20 UTC
From: richardharrison@webtv.net
Message-ID: <8455-3DA1F8F0-193@storefull-2314.public.lawson.webtv.net>
Source record: 133449

Roy Lewallen wrote:
"Stranded wire doesn`t have more surface area. The current flows on the outside of the whole wire (cable), not the outside of each strand."

Litz wire loses its advantage at frequencies above about 500 KHz. Coils are usually wound of solid wire at higher frequencies. Solid wire is just about as good for high frequency antennas also.

Strength is proportional to cross-section when force is uniformly applied so it should make little difference if the cross-section is in one unit or divided among many strands.

Stiffness is different. It depends on wire diameter, or the depth of a member, as well as the cross-section resisting resisting flexing. That`s why the wide-flanged beam was invented for construction. That`s also one reason tubes are used for tower legs and beam antenna elements.

Crevices tend to hold moisture which can speed deterioration. This is not usually not much of a problem to copper which resists deterioration very well.

Tam,, WB2TT wrote:
"What I avoid at all cost is stuff called Copperweld."

I`ve used many miles of Copperweld of many sizes. The springy coil comes right out of it under enough tension. Copperweld also comes stranded and this has less spring and is easier to work with while retaining the Copperweld advantage which is strength and conductivity. The steel is placed where strength is needed and the copper is placed where conductivity is needed.

Best regards, Richard Harrison, KB5WZI

410. FS: ICOM AH-1 Antenna Matching Unit

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 21:31:31 UTC
From: w1ksz@tiac.net
Message-ID: <3da1fce8.825185@news.tiac.net>
Source record: 133448

ICOM AH-1 Antenna Matching Unit (not an automatic
antenna tuner). $50 shipped lower 48.

73, Dick, W1KSZ

411. Re: Mixing galvanized and stainless hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 21:51:31 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ansvl3$6s9$0@208.206.142.102>
Source record: 133450
Body handling: HTML body converted to readable text

Russ Renaud wrote:
>
> Russ Renaud (ae517@FreeNet.Carleton.CA) writes:
> >
> > I have some of the original hardware that came with the antenna
> > and bought some new, as well. The bolts are galvanized
> > and are marked with a 'P'. Is there a good website that explains
> > this sort of nomenclature?
>
> Oh yes, both the stainless and the galvanized bolts have 3 'hash marks'
> equally spaced on the bolt head. Does this mean they have the same
> strength?

As I understand the hardness system used in hardware, that is what it
means. Three hash marks indicated the hardest material, one the least,
two the middle.

If I think about it for a while I'll probably remember the name for it.
:-)

Dick

412. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 22:01:15 UTC
From: cprstn54zz@att.net
Message-ID: <3da2038c.32324437@news-server.optonline.net>
Source record: 133451

On Mon, 07 Oct 2002 11:49:27 -0700, Roy Lewallen <w7el@eznec.com>
wrote:
>You can answer all these questions, and more, quite easily with the free
>demo version of EZNEC, from http://eznec.com.

EZNEC demo shows that gauge of wire (12-24) has almost no effect.
This is could believe. It also shows that a reflector wire has no
effect. This I find hard to believe.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

413. Re: removing busted bolts from bottom of tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 22:19:24 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3da20cd7_1@news1.prserv.net>
Source record: 133452

Dave:
I recently torched a 1-1/2" steel tube off the outside of an aluminum tube successfully. The thermal conductivity of the aluminum helps. The wet rags suggested also help. HOWEVER, the problem you face is one you may not realize. Usually, when we drill holes to fasten stuff together, slightly oversize holes are drilled. In the case of tower sections, a force fit is necessary instead, or the holes will enlarge themselves from pounding by the bolts as the tower moves, even a guyed one. That's not very clear, if you want, I'll provide more detail. Anyway, as you attempt to remove the old bolts, which were a force fit, and then rusted in place, you will enlarge the holes anyway. To overcome this, you will need to go to the next larger bolt, but not remove enough metal from the legs to weaken them. A dilemma. The inserts were there to provide crush resistance, and a tight fit for the bolts, to address the problem I have described. Consider metric, as there may be a metric size just larger than the present bolts which will produce the necessary fit. Another problem is that you really don't want the bolt to have any threads on the part in the hole, which excludes most of the cheap hardware you find in home stores these days. Good luck.

--
Crazy George
Remove NO and SPAM from return address
Dave Benham <dodgeboy@mindspring.com> wrote in message
news:ano9k7$j9d$1@nntp9.atl.mindspring.net...
> I picked up an old tower that was probably originally designed for TV, CB
or
> very light ham use. It's aluminum and all the cross braces are put
together
> with bolts and nuts, not welded. At the bottom of the lower section there
> are two holes in each leg. Two legs have these holes lined up on the same
> axis, so those legs can be bolted to the base and the tower walked up and
> the final leg bolted in. All I wanted it for was as a way to raise an R7
up
> higher.
>
> My problem is that two of these total of six holes have broken off bolts
> inside them. The bolts are broken flush with the tower leg so there's
> nothing to grab onto. The bolts are steel and they pass through some sort
> of reinforcement metal inside the tube of the leg -- I'm not sure what
this
> material is. I've drilled holes in them and tried an easy-out -- no luck
> whatsoever. They don't budge. From the appearance of the other clear
> holes, I don't believe these broken bolts are threaded through the
holes --

> there may be threads on the bolts, but not in the female portion it passes
> through. I've applied heat with a fine tipped OA torch with no luck --
> that's tricky because of the nearby aluminum -- too much heat and there
goes
> the tower leg, so I may not have applied enough heat. I also tried Liquid
> Wrench -- no luck.
>
> My holes in these bolts are not perfectly on center, so it would be almost
> impossible for me to drill out the bolts without enlarging and elongating
> the hole itself. In fact, one of the bolts is so hard that I can't get a
> drill to pass through it. The bit just spins. I resharpened the bit, and
> still no luck. I got a good way in from both sides of this bolt, but
there
> is some sort of hard spot in the center that I can't get through.
>
> I am about to cut off the bottom 4" of each leg and start over, but then
I'd
> be faced with drilling the holes on the 2 legs perfectly in line which
would
> be very difficult "in the field" (the tower won't fit in my basement where
> the drill press is!).
>
> Any ideas?
>
> Thanks.
>
> Dave K8TRF
>
>

414. Re: Mixing galvanized and stainless hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 22:25:00 UTC
From: dickhinoh@aol.com
Message-ID: <20021007182500.03155.00008388@mb-ck.aol.com>
Source record: 133453
Body handling: HTML body converted to readable text

One of many "bolt head marking charts" on the net.

http://www.nyct.net/~pn/Bolts.html

Dick H

>Subject: Re: Mixing galvanized and stainless hardware
>From: Dick Carroll dixie@townsqr.com
>Date: 10/7/02 5:51 PM Eastern Daylight Time
>Message-id:
>
>
>
>Russ Renaud wrote:
>>
>> Russ Renaud (ae517@FreeNet.Carleton.CA) writes:
>> >
>> > I have some of the original hardware that came with the antenna
>> > and bought some new, as well. The bolts are galvanized
>> > and are marked with a 'P'. Is there a good website that explains
>> > this sort of nomenclature?
>>
>> Oh yes, both the stainless and the galvanized bolts have 3 'hash marks'
>> equally spaced on the bolt head. Does this mean they have the same
>> strength?
>
>
> As I understand the hardness system used in hardware, that is what it
>means. Three hash marks indicated the hardest material, one the least,
>two the middle.
>
> If I think about it for a while I'll probably remember the name for it.
>:-)
>
>Dick
>

415. Re: Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 22:28:30 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <mJno9.48573$OM4.33110850@e3500-atl1.usenetserver.com>
Source record: 133454

Ken N4VSD <REMOVECAPSn4vsd@yahoo.com> wrote in message
news:yb6o9.50580$VQ2.10413943@twister.midsouth.rr.com...
> Hello,
>
> At what elevation angles and azimuths were the field strength test made?
> Were all of the antennas tested on the same mount to compensate for
> grounding differences? A screwdriver on top of a motor home will probably
> knock the pants off a mobile whip mounted on the bumper of a Geo Metro!!!
>
>
> Ken

I am sorry, but you really need to do some study on antennas! First of all,
a so-called "tuner" does
NOT tune an antenna in any way, shape, or form! Yes, it provides a match so
that your transmitter
will not fold back on transmit, but on most frequencies, you STILL have a
mis-matched antenna out
there. I have no doubt that I can use my own screwdriver antenna, both of
us on 100 watts and, not only receive a higher signal report, but talk OVER
you while doubling! A screwdriver is NOT
an "inefficient" antenna by any means for several reasons. 1) a properly
designed screwdriver HF
antenna is easily tuned to absolutely precise frequency each and every time.
2) Because there are
no "wander" leads, jumpered turns, or "tuners" that try to make up for other
deficiencies, the SD puts ALL of its RF into the active part of the antenna
while a jumpered bugcatcher still tries to load
those "shorted" turns--even with the jumper in place, at the very least
creating heat and a corres-ponding loss of coil "Q".

Again, anytime somebody tells me they will beat me in a shootout with a
"tuner", I have to take that challenge! Come see me! LOL!

Best 73

Jerry
K4KWH
>
> "CAM" <Cecil.A.Moore@ieee.org> wrote in message
> news:3DA07FA6.CE476F7D@ieee.org...
> > Ken N4VSD wrote:
> > > A screwdriver antenna is a very lossy device and your radiation
> > > efficiency will suffer.
> >

> > Hmmmmmm, someone should tell that to Vern, W6MMA who tied for first
> > place using a screwdriver in one of the last CA 75m shootouts. He beat
> > out all the bugcatchers except the one he tied with. Methinks your
> > data is obsolete.
> > --
> > cheers, CAM http://www.qsl.net/w5dxp
> >
> >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > -----== Over 80,000 Newsgroups - 16 Different Servers! =-----
>
>

416. Re: TV antenna for a specific channel?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 22:43:54 UTC
From: dplatt@radagast.org
Message-ID: <uq43ha4huajn7b@corp.supernews.com>
Source record: 133456

>I did exactly that several years ago. Some coworkers lived outside the city
>and couldn't watch 'Star Trek' from one of the lower power TV stations in
>town. I built a half dozen 6-element VHF Channel-8 Yagis based on (scaled
>from) the NBS design for 2m. I brazed them together out of old conduit and
>ceiling tile wire and then painted them black. They worked great; noticably
>better than a wideband commercial antenna. Good enough for the situation
>that was just out of reach for affordable commercial antennas. Most are
>still in use today.

I built a Yagi for channel 11, by starting with a 15-meter (20 MHz)
design in the ARRL Antenna Handbook software collection and scaling it
down in size by about 10:1. The resulting 6-element Yagi is cut for
operation at around 200 MHz - lowest SWR is about 3 MHz above the
center of the 6 MHz band for this channel.

The beam itself is a 5' piece of 1-by-2 clean fir, waterproofed with
an epoxy coating (several coats of polyurethane varnish would be a
good substitute). Elements are copper-plated-steel welding rod. The
driven element is a folded dipole (approximate drivepoint impedance
300 ohms), with a quarter-wavelength coax balun cut for channel 11
(it's short enough to be folded in half and taped to the top of the
beam). The driven-element, balun, and feedline connections are
soldered, and then waterproofed with silicone sealant.

The feedline from this Yagi is linked to the main antenna feed (a
basic mid-fringe Radio Shack log-periodic) by a Channel Master
"Join-tenna" single-channel combiner from Stark.

The antenna cost me perhaps $10 to make, the Join-tenna was about $15.
The signal quality is exceptionally good - definitely stronger than
the log-periodic antenna delivers.

The main reason to do this was that the Channel 11 transmitter is in
almost the exact opposite direction of most of the other stations in
my area. It was a fun and satisfying project... we can now
watch both Channel 11, and the San Francisco stations simultaneously
on different TV sets, and never need to rotate the main antenna.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

417. Re: Mixing galvanized and stainless hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 22:44:14 UTC
From: gaschafer@attbi.com
Message-ID: <3da20e20.27444934@netnews.attbi.com>
Source record: 133455
Body handling: HTML body converted to readable text

On 7 Oct 2002 21:51:31 GMT, Dick Carroll wrote:

>
>
>Russ Renaud wrote:
>>
>> Russ Renaud (ae517@FreeNet.Carleton.CA) writes:
>> >
>> > I have some of the original hardware that came with the antenna
>> > and bought some new, as well. The bolts are galvanized
>> > and are marked with a 'P'. Is there a good website that explains
>> > this sort of nomenclature?
>>
>> Oh yes, both the stainless and the galvanized bolts have 3 'hash marks'
>> equally spaced on the bolt head. Does this mean they have the same
>> strength?
>
>
> As I understand the hardness system used in hardware, that is what it
>means. Three hash marks indicated the hardest material, one the least,
>two the middle.
>
> If I think about it for a while I'll probably remember the name for it.
>:-)
>
>Dick

Yes but I don't think that different materials have the same strength
just because they have the
same number of marks. I think it only holds true for like material.

Also with steel, the harder it is the more brittle it is and the
easier it will rust.

Stainless is generally harder than galvanized steel but stainless is
not as strong as the galvanized
steel.

A bolt supplier will have all the ratings.

73
Gary K4FMX

418. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 22:59:55 UTC
From: "Ron P." <rpackerii@neo.rr.com>
Message-ID: <Lloo9.51473$Cz.6459430@twister.neo.rr.com>
Source record: 133457

If a radio ever drew 1700 amps, well, all I can say is the RF would be
enough to fry a duck while it is still flying :)
Yes, I do believe that something got lost. I always look at it this way,
overkill in slight is better than underkill in excess.

Ron - kc8ulu

"Bob Miller" <bamiller@texas.net> wrote in message
news:QYKhPa6h9wOQfd6Ppc5YnUtg91jx@4ax.com...
> "Ron P." <rpackerii@neo.rr.com> wrote:
>
> >Nope, a typical battery uses 900CCA (Cold Cranking Amps), or around 850
> >nominal. Take that times 2...1700. He said he has 2
batteries/alternators,
> >probably 100 amps a piece, if it was my 4x4 (my Bronco has a 1000 CCA
> >battery, and a 100 Amp alternator).
>
> Maybe something is getting lost here. The batteries may have 1700 amps
capacity,
> but the radios will not be drawing 1700 amps. Maybe upwards of 20 amps for
the
> 706, and 4 or 5 times that for the amplifier.
>
> Bob
> k5qwg
>
>
> >
> > Ron - kc8ulu
> >
> >"John Franklin" <jpfrank@peoplepc.com> wrote in message
> >news:uq19ra5f2ri1ff@corp.supernews.com...
> >>
> >> Make sure the block can't be messed with
> >> > though, since you have around, and this is a guess, 1600 amps or so
> >> running
> >> > back there, since you said you have a dual batt., and I am guessing
they
> >> are
> >> > in parrallel.
> >>
> >>
> >> Don't you mean 1600 WATTS? 1600 amps is getting into the kind of
> >current
> >> draw that a SUBMARINE uses.....

> >>
> >>
> >> Pat
> >>
> >>
> >
>

419. Re: Hop hop hop...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 23:04:38 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <ant3u209oj@enews4.newsguy.com>
Source record: 133458

well, you may be noticing several different phenomena.

in the closest ranges you first pick up the strong 'sky wave'. this is basically line of sight and is what you use most on those uhf and microwave bands.

then, if the ground were perfectly smooth and the earth like a ball you would notice that the 'ground wave' follows the curvature of the earth for some distance beyond the horizon, slowly getting weaker as you increase the distance. on 20m over average soil this could be 100-200km or so depending on power and antennas used.

beyond the range of the ground wave you are in the 'skip zone' as the skywave travels up to the ionosphere and back down again anywhere from a few hundred km's out to a few thousand km's depending on the ionosphere, frequency, and lots of other stuff... but this isn't what is probably bothering you.

Those are the simple things... now lets get messy.

mountains and ridges that are between you and the transmitter can do two things. They can shadow you from the sky wave, and they can scatter the skywave in different directions... remember this for a minute.

buildings, towers, water towers, power lines, air planes, and any other metallic objects between you and the transmitter can also scatter the skywave in various directions... keep this in mind also.

The ionosphere is not uniform and changes drastically during the day. at times you can get near vertical reflections on some frequencies resulting in a very short hop distance... at other times the signal can skip once then reflect back... and the wave can even make it around the world... or it can be absorbed or refracted out into space and virtually disappear. add this to the above.

Now from where you are you have to add up all the possible sources of signals that may get to your antenna. the sky wave, the ground wave, signals reflected from the ionosphere, signals reflected from mountains, buildings, etc. now take all these different wave sources and start adding them up at your antenna, this is much like taking waves in a bathtub or pool created by a toy boat and watching them reflect around and around... at some places they add up and you get a bigger signal, at other places you get almost no signal. and the distance between big signals and no signals can be a very small distance, in extreme situations as small as 1/2 wavelength change in location can create huge differences in signals. this is commonly seen on 2m repeaters when a user is mobile in a city, on there they commonly call them 'phasing clicks' as the transmitter rapidly goes from strong to

almost no signal. on 2m when you park a car in a lot and talk you can sometimes go from almost no signal to a strong signal by moving your car a few inches... the same is possible on 20m, just the scale is bigger... it usually takes bigger buildings or a mountain to make big shadows and nulls like that.

i hope some of that makes sense, its just off the top of my head trying to explain what can be a very complicated subject without the aid of pictures.

"Thierry" <lombryt@hotmail.com> wrote in message
news:db35a0c.0210071302.308c8a7@posting.google.com...
> Hi,
>
> About waves propagation in the HF spectrum, I have always believed
> that waves (say the 20m) propagated nearly in straight line (let's
> speak theoretically), oscillating 1/20 "mega times" per seconds on its
> path between TX and RX. Its wavelength being of 20 m long, on a
> distance of 100 m (300') there is 5 wavings.
> If it was a direct wave it should arrive to me without the least miss,
> even if I move 10 m or 100 m away as this wavelenght is rather long
> versus i.e. Ghz and is quasi insensible to obstacles.
>
> But it seems this far to be the way they propagate in the field...
> Sometimes I wonder to not be able to listen OM living 100 or 500 km
> away as I hear without problem others OM living at the same distance
> in the opposite direction or their correspond living some 100 km away
> from them.
>
> According a friend OM, this is "normal". A 20m wave for example does
> not propagate as I stated above. In fact such a wave propagates doing
> huge "hops", making jumps on the ground or via the ionospheric layers
> : dong, dong, dong, dong... ;-), a true marsupilami ! I don't remember
> the length of each jump but this is well above a few hundreds meters
> if not some km each, whatever the HP frequency.
>
> Do you confirm this mode of propagation of HF waves, doing jumps of
> several km maybe, even if the wave itself is shorter ? What could
> explain that we sometimes cannot hear a local station or even a DX ?
> (I do neither speak about the skip distance - that doesn't seems to
> be the correct explanation - nor the propragation via the ionospheric
> layers, wherein I beleive such "hops" could exists too between layers,
> to confirm).
>
> If it is true what medium or energy "supports" such hops ? How such
> waves change their propagation mode to jump this way ? A very strange
> affair that escape me ...
>
> Thierry
> 73
> http://www.astrosurf.com/lombry/menu-qsl.htm

420. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 23:20:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uq45medga3o99e@corp.supernews.com>
Source record: 133459

I think you'll find that a reflector wire can have quite an effect, but only under certain conditions. It'll depend on the ground conductivity, the length of the reflector wire (which might need to be considerably shorter than a free space half wavelength if it's close to the ground), the height of the reflector wire above ground, and the spacing between the antenna and reflector wire. Be sure to use the Real, High Accuracy ground model in EZNEC for this analysis.

Roy Lewallen, W7EL

Ken wrote:
> On Mon, 07 Oct 2002 11:49:27 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>>You can answer all these questions, and more, quite easily with the free
>>demo version of EZNEC, from http://eznec.com.
>
>
> EZNEC demo shows that gauge of wire (12-24) has almost no effect.
> This is could believe. It also shows that a reflector wire has no
> effect. This I find hard to believe.
>
> Ken KC2JDY
>
> Ken
> (to reply via email
> remove "zz" from address)

421. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 23:33:14 UTC
From: dplatt@radagast.org
Message-ID: <uq46dqs85jirb4@corp.supernews.com>
Source record: 133460

>Sounds simple enough, but how do I cleanly/professionally accomplish
>it? I've been to Lowes, Home Depot, a couple of auto parts stores and
>auto-electronics install shops and found no ideas worth pursuing...
>
>My desire is to use some really heavy gauge wire -- I'll need about
>16' -- (what gauge will I need for this kind of a run?)

Depends on the amperage you're planning to draw.

> -- enough to
>handle current to support all radios and the linear amplifier to
>extend power directly from my dual battery/dual alternator engine
>compartment into the truck's interier. From there, I want a really
>clean power distribution strip/bar or something better than crimp-on
>connectors fastened together with 3/16" nuts/bolts (suggested by all
>the places I was at before).

One possibility is the Anderson PowerPole connectors (the 30-amp
variety), plus a RigRunner distribution panel. You'd get flexibility,
and independent fusing on each individual feed.

Another possibility - take a look in Home Depot, in the area where
they sell circuit-breakers and breaker panels. You'll find some
"grounding bar" devices... rectangular metal bars, with set-screws and
holes that will take wire up to about 6 or 8 gauge. They're normally
used to bond together the (bare) ground wires in Romex or similar
cable, when the wires come to the breaker panel. You could use a pair
of these - one for hot and one for ground - if you figure out a way to
mount the hot bar so that it's well-insulated from the vehicle's
chassis.

>As far as radios, I'll be using two primary radios: an IC-706 and
>IC-2070 (when they finally release it). I don't have the 500W linear
>amplifier yet, but I intend to add it to my setup at some point in the
>future and I'd like to use existing wires unless you all don't think
>it's practical...

Mmmph. A 500-watt amp at 12 volts is probably going to be drawing
well in excess of 40 amps at full output. You'll probably want/need a
dedicated high-amperage feed just for the amplifier, in order to keep
the amp-induced voltage drop in the wire from sagging the voltage to
the rig itself. At that sort of amperage, you may need something like
0-gauge electric-welder wire to avoid an unacceptable voltage drop.

At 40 amps, you're not going to have a lot of transmit time before you
flatten your battery... you'll need to have the engine running. You

might want to consider installing an auxiliary deep-cycle battery
right back near the rig/amp, and then running a heavy-gauge feeder to
the main battery or directly to the alternator. This would
reduce/evade some of the voltage-drop-in-the-wire problem, perhaps.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

422. Re: Portable Magloop from 80-6m (also working on 2m)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 23:46:14 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <3DA246FD.1000505@adelphia.net>
Source record: 133461

Art Unwin KB9MZ wrote:

> Personaly I find it very encouraging to see somebody else showing
> that a small 'loop' can be resonant down to 80 meters.
> Actually was working barefoot on the 160 band the other day
> on my 'loop' and getting good signal reports. Even a guy named 'doc'
> was hearing me fine. Reg, my plate capacitor hasn't arced over yet
> and I have inputed a 1 KW so I don't believe 'all is yet known' about
> the 'loops' abilities.
> I suppose it is possible to get 'good' signal reports
> on 160 with less than a watt (1 % efficiency you say) but then I would assume
> that the German loop inventor also has done the same.
> I think it would be pushing it to describe the loop in the same way
> one would describe an E/H considering how many loops are in use today

How big is your loop?

As for tuning a small loop down to 80 meters, there isn't any problem,
except efficiency suffers.

I'm really curious about the other params of your loop, maybe you are
doing something differently. I did some quick calculations and a 1 meter
loop (that was my guess at small) looked really inefficient, and had
almost 10 kV at the capacitor, which was pretty big.

I'm no expert at magloops, being in the process of building my first one,
but these are some pretty spetacular claims.

- Mike KB3EIA -

423. Re: Modeling GP with tapered tubular vertical element and wire radials

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-07 23:50:49 UTC
From: "Joe Giacobello, K2XX" <k2xx@swva.net>
Message-ID: <3DA21DD9.8C2419C1@swva.net>
Source record: 133462

Well, guys, I got no responses to my queries, so I am sending this
follow-up to the Antennas Usenet group also.

I went ahead and put up the antenna today. The model was accurate. It
predicted a minimum SWR at 7.12 MHz and it was actually 7.07 as checked
with an MFJ-269 at the bottom of the antenna. So, it appears that the
Leeson corrections aren't necessary for a tapered vertical antenna.
Why?

After thinking it through, I answered my second question, and smaller
segment lengths do indeed result in the penetration of the segments of
the vertical radiator into those of the radials, which explains the
deterioration of the model's reliability (average gain test) with
increasing segmentation.

Apparently, the feed point placement in the model is not critical.

I merely eye-balled the radial angles and they turned out to be
guestimates at best. Apparently, based on the agreement with the model,
my eye was close enough.

If anyone has any comments, I'd be interested in hearing them.

73, Joe

"Joe Giacobello, K2XX" wrote:

> Dear List:
>
> I decided to put together a 40 meter vertical using tubing from a
> defunct Yagi that I had around. The vertical radiator is composed of
> four lengths of telescoping tubing of four different diameters, and
> the
> radials are made of #12 wire angled at 103 degrees relative to the
> vertical radiator, i.e. 13 degrees below horizontal.
>
> I modeled the antenna using EZNEC with the expectation that I would
> have
> to invoke the (Leeson) corrections for a tapered element. However, I
> was unable to do so because the elements are (1) non-linear and (2),
> even if I remove the radials to apply the Leeson correction to only
> the
> vertical section, the tubing sections are of unequal lengths.
> Nevertheless, when I run the average gain test on the as-is model, I
> get
> a very respectable 1.017, strongly suggesting that the model is valid.
>

> It also turns out that the average gain test value deteriorates as one
>
> increases the number of segments in the bottom section of the vertical
>
> radiator and the number of segments in each of the radials. (Thus one
>
> cannot use the convergence test as a second criterion for model
> reliability.) I believe that this anomaly occurs because there is
> penetration of the lowest tubing segment into the adjacent segments of
>
> the attached radials.
>
> My questions are:
>
> 1. Given the satisfactory result from the average gain test, is the
> model indeed valid?
>
> 2. Is the penetration explanation for the deterioration of the average
>
> gain test with increasing segmentation reasonable?
>
> 3. With so few segments in the bottom section of the vertical
> radiator,
> the modeled feed point is necessarily about 1 foot above the bottom of
>
> the vertical. Since the actual feed point of the real antenna will be
>
> at the very bottom, does this difference affect the reliability of the
>
> model?
>
> 4. From a practical standpoint, the feed point impedance of the
> antenna
> is quite sensitive to the angle of the radials. How does one
> accurately
> adjust the angle of the radials when one is constructing the antenna?
> Are there tools available to make this measurement?
>
> I would appreciate any comments and input. Adjustment of the vertical
>
> length of the antenna will be a real chore once it's in place. So an
> accurate model would be a real favor.
>
> Thanks for your help.
>
> 73, Joe
>
> - - -
>
> Your moderator for this list is:

> Larry Wilson KE1HZ antennas-owner@mailman.qth.net
> _____
> Antennas mailing list
> Antennas@mailman.qth.net
> http://mailman.qth.net/mailman/listinfo/antennas

424. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 00:06:17 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <uq48bvlel5ns38@corp.supernews.com>
Source record: 133463

You need to check out some of the CB shoot out sites. They have cars with 8 or more alternators turned by big block NOS injected engines. If you have less than 10,000 watts output, stay home.

"Ron P." <rpackerii@neo.rr.com> wrote in message news:Lloo9.51473$Cz.6459430@twister.neo.rr.com...
> If a radio ever drew 1700 amps, well, all I can say is the RF would be
> enough to fry a duck while it is still flying :)

425. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 00:10:12 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <5l2dnYBzxtmarz-gXTWcqA@News.GigaNews.Com>
Source record: 133468

The size of the wire does not mater to the RF. The only thing is how big it must be to support itself and any ice that may form on it. I doube that a wire layed on the ground would help but if you put a wire slightly longer than the dipole about .1 to .25 wavelengths under the antenna it will shoot much of the signal up and should lay down a beter signal for short ranges and not as much for the longer ranges.

"Ken" <cprstn54zz@att.net> wrote in message news:3da17ef4.528396703@news-server.optonline.net...
> I am putting together a backwoods CW QRP NVIS 40M rig that will run at
> 3 watts.
>
> The antenna will be a half-wave dipole 20 ft up. If I can't find two
> trees, it will be an inverted-V with the center up 23 ft on a
> makeshift pole. What is the lightest gauge wire I can use for my
> dipole that will perform? Do dipoles become less effective as the
> gauge goes up? Is efficiency a function of wire surface area?
>
> Some say a slightly longer parasitic wire 20 ft below the dipole (in
> my case, on the ground) will significantly improve NVIS performance.
> Does the guage of this reflector wire matter?
>

426. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 00:23:31 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <uq49cbslhfvj24@corp.supernews.com>
Source record: 133464

I hate these kind of asinine generic statements. under what conditions does it crash? I run a home network with ME. It is up 24/7 and has 6 machines connected. 2 are used for e-mail and day to day stuff, 1 is a game machine and the other 3 run SETI. I have never had a "crash".

While this is anecdotal evidence at best, your broad statement gives no insight as to why I should avoid ME. If you would care to elucidate, I am open to reason. If it as I suspect, a non-technical person parroting the standard crap because they recently discovered Linux then save your key-strokes.

Fred - W4JLE
"AA" <derswede@aol.comspam.com> wrote in message
news:20021007092053.09024.00000542@mb-ba.aol.com...
> Heh...."ME...the Mistake Edition, soon to be crashing a computer near you."
> Stay away from it!

427. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 00:53:21 UTC
From: cprstn54zz@att.net
Message-ID: <3da22b83.42554703@news-server.optonline.net>
Source record: 133465

On Mon, 07 Oct 2002 16:20:48 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

I take back what I said. EZNEC gives some very surprising results.

The conventional wisdom is that the lowest effective horizontal 40M
NVIS dipole is at 20 ft, with a reflector wire on the ground.

EZNEC says that if you put the dipole at 10 ft and the reflector wire
at 34" you will have a gain 10dB higher than the conventional antenna.
Is this an artifact?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

428. Re: Modeling GP with tapered tubular vertical element and wire radials

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 00:58:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uq4bdf318o43ff@corp.supernews.com>
Source record: 133466

Comments interspersed.

Joe Giacobello, K2XX wrote:
> Well, guys, I got no responses to my queries, so I am sending this
> follow-up to the Antennas Usenet group also.
>
> I went ahead and put up the antenna today. The model was accurate. It
> predicted a minimum SWR at 7.12 MHz and it was actually 7.07 as checked
> with an MFJ-269 at the bottom of the antenna. So, it appears that the
> Leeson corrections aren't necessary for a tapered vertical antenna.
> Why?

The NEC-2 error caused by tapering is quite small. It's small enough
that you can usually ignore it when modeling a dipole or monopole. Where
a small error has a relatively big effect is when it's in a parasitic
element. There, very accurate results are necessary in order to get an
accurate radiation pattern, particularly an accurate front/back ratio.

> After thinking it through, I answered my second question, and smaller
> segment lengths do indeed result in the penetration of the segments of
> the vertical radiator into those of the radials, which explains the
> deterioration of the model's reliability (average gain test) with
> increasing segmentation.
>
> Apparently, the feed point placement in the model is not critical.
>
> I merely eye-balled the radial angles and they turned out to be
> guestimates at best. Apparently, based on the agreement with the model,
> my eye was close enough.
>
> If anyone has any comments, I'd be interested in hearing them.
>
>
> 73, Joe
>
> "Joe Giacobello, K2XX" wrote:
>
>
>>Dear List:
>>
>>I decided to put together a 40 meter vertical using tubing from a
>>defunct Yagi that I had around. The vertical radiator is composed of
>>four lengths of telescoping tubing of four different diameters, and
>>the
>>radials are made of #12 wire angled at 103 degrees relative to the

>>vertical radiator, i.e. 13 degrees below horizontal.
>>
>>I modeled the antenna using EZNEC with the expectation that I would
>>have
>>to invoke the (Leeson) corrections for a tapered element. However, I
>>was unable to do so because the elements are (1) non-linear and (2),
>>even if I remove the radials to apply the Leeson correction to only
>>the
>>vertical section, the tubing sections are of unequal lengths.

The correction doesn't require equal length tubing sections, and I don't know what you mean by "non-linear". The requirements for EZNEC applying the correction are that the element has to be straight and within about 15% of self-resonance (quarter wave resonance for a monopole, half wave resonance for a dipole). It also can't have any sources, loads, or transmission lines except at the base of a monople or center of a dipole. "Show Stepped Dia Correction" in the Wires Window "Other" menu will show you if a given "group" (series of connected wires -- an element) is being corrected and, if not, why not. More detailed information can be found in the EZNEC manual under Building The Model/Modeling The Antenna Structure/Advanced Wire Features/Stepped Diameter Correction.

>>Nevertheless, when I run the average gain test on the as-is model, I
>>get
>>a very respectable 1.017, strongly suggesting that the model is valid.

A good average gain test doesn't mean that the correction is needed or not. It only indicates that the total radiated power equals the total power applied by the sources. The NEC-2 error occurring when wires of different diameters are connected only affects the reported impedance (reactance, mainly) but not the ratio reported as Average Gain.

>>It also turns out that the average gain test value deteriorates as one
>>
>>increases the number of segments in the bottom section of the vertical
>>
>>radiator and the number of segments in each of the radials. (Thus one
>>
>>cannot use the convergence test as a second criterion for model
>>reliability.) I believe that this anomaly occurs because there is
>>penetration of the lowest tubing segment into the adjacent segments of
>>
>>the attached radials.

This is definitely a possible cause of deteriorating Average Gain. Also, unlike MININEC, there are situations in NEC-2 where longer segments are better. The vicinity of a stepped diameter junction is one of them.

>>My questions are:
>>
>>1. Given the satisfactory result from the average gain test, is the

>>model indeed valid?

Not necessarily.

>>2. Is the penetration explanation for the deterioration of the average
>>
>>gain test with increasing segmentation reasonable?

Yes.

>>3. With so few segments in the bottom section of the vertical
>>radiator,
>>the modeled feed point is necessarily about 1 foot above the bottom of
>>
>>the vertical. Since the actual feed point of the real antenna will be
>>
>>at the very bottom, does this difference affect the reliability of the
>>
>>model?

Probably not, if the antenna is around a quarter wavelength high. If it's close to a half wavelength, the sensitivity to the feed point position becomes a lot greater (and I wouldn't trust modeling results to be very exact). Move the source up a segment and see how much change you see.

>>4. From a practical standpoint, the feed point impedance of the
>>antenna
>>is quite sensitive to the angle of the radials. How does one
>>accurately
>>adjust the angle of the radials when one is constructing the antenna?
>>Are there tools available to make this measurement?

If a few degrees makes that big a difference, I wouldn't spend a lot of time getting the angle precise and expect the impedance to be exactly what EZNEC predicts. Factors EZNEC doesn't know about, like wire sag and other nearby objects, are likely to skew results anyway. If it's that critical, watch the feedpoint impedance as you adjust the radial angle, and stop when you have the impedance you want.

>>
>>I would appreciate any comments and input. Adjustment of the vertical
>>
>>length of the antenna will be a real chore once it's in place. So an
>>accurate model would be a real favor.
>>
>>Thanks for your help.
>>
>>73, Joe
>>
>>- - -
>>
>>Your moderator for this list is:

>>Larry Wilson KE1HZ antennas-owner@mailman.qth.net
>>_____
>>Antennas mailing list
>>Antennas@mailman.qth.net
>>http://mailman.qth.net/mailman/listinfo/antennas

Roy Lewallen, W7EL

429. Re: Mixing galvanized and stainless hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 01:09:06 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <8684qugr3g09skfm9abrniv27lntd1ld4k@4ax.com>
Source record: 133467
Body handling: HTML body converted to readable text

On 7 Oct 2002 17:43:32 GMT, ae517@FreeNet.Carleton.CA (Russ Renaud)
wrote:

|Now that I've poured the concrete for my tower base, I'm
|hoping to erect my tower soonest.
|
|I have some of the original hardware that came with the antenna
|and bought some new, as well. The bolts are galvanized
|and are marked with a 'P'. Is there a good website that explains
|this sort of nomenclature?

http://www.americanfastener.com/techref/grade.htm

Rohn hardware is grade 5 and you shouldn't use lesser quality.
|
|I also have some stainless hardware of the same size, the bolts
|being marked with 'HHW' or a triangle. Can I mix stainless hardware
|with galvanized hardware?

Yes. One caution with stainless steel fasteners is that you should
lubricate all threads to prevent galling. Generally, I would stick to
grade 5 galvanized unless there is a dissimilar metals problem.

430. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 02:21:29 UTC
From: Sidevalve <Sabbatai_zvi@hotmail.com>
Message-ID: <cff4qu4frrljt9qhhathd9f917qe6mt53q@4ax.com>
Source record: 133369

On Tue, 08 Oct 2002 00:53:21 GMT, cprstn54zz@att.net (Ken) was like:

>On Mon, 07 Oct 2002 16:20:48 -0700, Roy Lewallen <w7el@eznec.com>
>wrote:
>
>I take back what I said. EZNEC gives some very surprising results.
>
>The conventional wisdom is that the lowest effective horizontal 40M
>NVIS dipole is at 20 ft, with a reflector wire on the ground.
>
>EZNEC says that if you put the dipole at 10 ft and the reflector wire
>at 34" you will have a gain 10dB higher than the conventional antenna.
>Is this an artifact?
>
>Ken KC2JDY

You would probably get 10 dBi aimed straight upward which
is pretty useless!

- - -
Commyanism is the woyste thing I evah hoyde - Robin Williams

431. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 02:48:33 UTC
From: John Franklin <jpfrank@peoplepc.com>
Message-ID: <uq4hnqro6q9u93@corp.supernews.com>
Source record: 133370

I have no interest in "Cold cranking AMPS" I am talking about sheer AMP Hours here. For that kind of current without much voltage drop you would need something on the order of 6 ought wire to deliver that kind of current. You go ahead and try pulling 1600 AMPS from your two batteries, I bet in very short order you buckle the plates in all the cells. Car batteries are NOT designed for continuous high current draw, only short bursts such as starting. That's what DEEP cycle batteries are for.....SUSTAINED draw of current.

WB7FFI out.....

432. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 03:00:09 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <i-ecnXQUUIa-1z-gXTWcoA@News.GigaNews.Com>
Source record: 133371

Richard,

I will have to admit I never actually used copperweld. I was going by observation of what a couple of friends dipoles look like - wavy. BTW, didn't know about the stranded copperweld, but once had some WW2 military field telephone wire that had both copper and steel strands.

Roy mentioned corrosion, I was surprised to see that even insulated wire gets some surface corrosion after a few years.

I have a 75 meter full size vertical loop, made of cheap Carol #14 stranded wire that has been up for about 5 years now, still going strong. That's about 250 feet of wire up in the trees (BIG trees). In case anybody is interested, the top wire is at 75 feet, the longer bottom wire is at 20 ft. Feed is at one corner. 1/4 wavelrngth of RG11 gives me a good match to 50 ohms.

Tam/WB2TT

> I`ve used many miles of Copperweld of many sizes. The springy coil comes
> right out of it under enough tension. Copperweld also comes stranded and
> this has less spring and is easier to work with while retaining the
> Copperweld advantage which is strength and conductivity. The steel is
> placed where strength is needed and the copper is placed where
> conductivity is needed.
>
> Best regards, Richard Harrison, KB5WZI
>

433. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 03:22:21 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <tVmdnTD6mrfL0j-gXTWcqw@News.GigaNews.Com>
Source record: 133372

Roy,

Why is the reflector on the ground? I ran EZNEC on a 75 meter antenna with a wire reflector at 50 feet, resonant lower than the antenna, and got something like 3db added gain for a spacing of about 30 feet. Never built it, because the tribander would get in the way.

Tam/WB2TT

"Roy Lewallen" <w7el@eznec.com> wrote in message news:uq45medga3o99e@corp.supernews.com...
> I think you'll find that a reflector wire can have quite an effect, but
> only under certain conditions. It'll depend on the ground conductivity,
> the length of the reflector wire (which might need to be considerably
> shorter than a free space half wavelength if it's close to the ground),
> the height of the reflector wire above ground, and the spacing between
> the antenna and reflector wire. Be sure to use the Real, High Accuracy
> ground model in EZNEC for this analysis.
>
> Roy Lewallen, W7EL
>
> Ken wrote:
> > On Mon, 07 Oct 2002 11:49:27 -0700, Roy Lewallen <w7el@eznec.com>
> > wrote:
> >
> >>You can answer all these questions, and more, quite easily with the free
> >>demo version of EZNEC, from http://eznec.com.
> >
> >
> > EZNEC demo shows that gauge of wire (12-24) has almost no effect.
> > This is could believe. It also shows that a reflector wire has no
> > effect. This I find hard to believe.
> >
> > Ken KC2JDY
> >
> > Ken
> > (to reply via email
> > remove "zz" from address)
>

434. Re: Broken glass insulator. Sob!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 03:31:41 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA2519D.DC1C8BF5@ieee.org>
Source record: 133374

David or Jo Anne Ryeburn wrote:
>
> CAM <Cecil.A.Moore@ieee.org> wrote:
> > I doubt that glue alone will hold in tension. However, how about glue
> > plus a tiewrap through the holes. That should help keep the glue in
> > compression. Use a large black tiewrap tensioned as tightly as possible.
>
> And how good is the high-frequency insulation of the tie wrap, at the end
> of a dipole?

I don't know the answer. I've never had a problem with the tiewraps
which I think are made out of nylon. I also use black dacron rope
as the dipole support so there's no second wire path.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

435. Re: Broken glass insulator. Sob!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 03:34:02 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA2522A.7DDFCA72@ieee.org>
Source record: 133375

Roy Lewallen wrote:
> Another problem with tie wraps (along with most other plastics) is that
> they'll deteriorate and weaken from the effect of UV rays.

I've had black ones out in the Texas sun for four years with no
ill effects. It is my understanding that the black tiewraps are
UV resistant.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

436. Re: Broken glass insulator. Sob!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 03:35:25 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <antjptdp0@208.207.71.147>
Source record: 133373

Roy Lewallen wrote:
>
> Another problem with tie wraps (along with most other plastics) is that
> they'll deteriorate and weaken from the effect of UV rays.

That's the reason for using the black nylon ties. They're made to be UV resistant and the larger ones are used commercially to tie coax feedlines to tower legs. They last a long time, I have some that have been up for several years. Some even use a metal insert for the locking catchpin.

The white nylon ties I previously used would disintegrate in a few months.

Dick

437. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 03:40:50 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA253C2.357AB81F@ieee.org>
Source record: 133377

Ken wrote:
> EZNEC says that if you put the dipole at 10 ft and the reflector wire
> at 34" you will have a gain 10dB higher than the conventional antenna.
> Is this an artifact?

I once designed an omnidirectional 40m antenna that EZNEC said had a
22dBi gain. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

438. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 03:42:52 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <antk7s$1hp$0@208.207.71.147>
Source record: 133376

Richard Harrison wrote:
>
Copperweld of many sizes. The springy coil comes
> right out of it under enough tension.

Some hams straighten Copperweld by tieing one end of a length of it to a tree, the other end to a vehicle bumper, and "stretching" it just slightly.
I was always a bit leery of this thinking that it could break and whiplash with potentially disastrous results.

Dick

439. Re: cutting down 2m antenna for marine VHF band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 04:14:30 UTC
From: Leland Cox <lcox107@comcast.net>
Message-ID: <3DA25BA6.50904@comcast.net>
Source record: 133378

If you cut it down to marine frequency what are you going to use it for?
If you put it on a boat it will have to be steel for the magnet to
stick and will not work too good without a ground plane. The mag mount
is designed to be capacitivly coupled to the ground through the base.

Les, AA4F

wf3h@ptdnospam.com wrote:

> I have a 5/8 wavelength antenna, mag mount, cut for 2m ham band. Is it
> possible to cut this for the 157 MHz marine band by shortening the
> whip? Don't want to ruin it if this won't work....
>
>
>

440. Re: OT: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 04:21:16 UTC
From: George Kinzer <horseflygk@worldnet.att.net>
Message-ID: <03to9.8597$k_2.609786@bgtnsc05-news.ops.worldnet.att.net>
Source record: 133379

that what happen without antenna, you burn it man...

--
If first you don't succeed, do the same thing again...see what happens

�.��� ��)) -:�:-
�.�� .����))
George Kinzer
((��.�� ..��
-:�:- ((��
�.�

Those who want to be successful, will find a way,
those that don't, will find an excuse!

441. Re: Antennas and MORE CD: FS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 04:28:33 UTC
From: George Kinzer <horseflygk@worldnet.att.net>
Message-ID: <R9to9.8613$k_2.608982@bgtnsc05-news.ops.worldnet.att.net>
Source record: 133380

How about getting a job?

--
If first you don't succeed, do the same thing again...see what happens

�.��� ��)) -:�:-
�.�� .����))
George Kinzer
((��.�� ..��
-:�:- ((��
�.�

Those who want to be successful, will find a way,
those that don't, will find an excuse!

442. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 04:34:45 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <uq4o3b7ho2q8ea@corp.supernews.com>
Source record: 133381

Was it fractal or E/H?

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DA253C2.357AB81F@ieee.org...
>
> I once designed an omnidirectional 40m antenna that EZNEC said had a
> 22dBi gain. :-)
> --
> cheers, CAM http://www.qsl.net/w5dxp

443. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 04:43:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uq4oifk54n4rfa@corp.supernews.com>
Source record: 133382

I'm sorry, I don't understand the question.

Roy Lewallen, W7EL

Tarmo Tammaru wrote:
> Roy,
>
> Why is the reflector on the ground? I ran EZNEC on a 75 meter antenna with a
> wire reflector at 50 feet, resonant lower than the antenna, and got
> something like 3db added gain for a spacing of about 30 feet. Never built
> it, because the tribander would get in the way.
>
> Tam/WB2TT
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:uq45medga3o99e@corp.supernews.com...
>
>>I think you'll find that a reflector wire can have quite an effect, but
>>only under certain conditions. It'll depend on the ground conductivity,
>>the length of the reflector wire (which might need to be considerably
>>shorter than a free space half wavelength if it's close to the ground),
>>the height of the reflector wire above ground, and the spacing between
>>the antenna and reflector wire. Be sure to use the Real, High Accuracy
>>ground model in EZNEC for this analysis.
>>
>>Roy Lewallen, W7EL

444. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 08:10:03 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210080010.212aabec@posting.google.com>
Source record: 133383

riffin-rich <riffin-rich@cantspam.me> wrote in message
news:<b9l0qus5t70cupehfl92h045l8rf995qv2@4ax.com>...
> Sounds simple enough, but how do I cleanly/professionally accomplish
> it? I've been to Lowes, Home Depot, a couple of auto parts stores and
> auto-electronics install shops and found no ideas worth pursuing...
>
> My desire is to use some really heavy gauge wire -- I'll need about
> 16' -- (what gauge will I need for this kind of a run?) -- enough to
> handle current to support all radios and the linear amplifier to
> extend power directly from my dual battery/dual alternator engine
> compartment into the truck's interier. From there, I want a really
> clean power distribution strip/bar or something better than crimp-on
> connectors fastened together with 3/16" nuts/bolts (suggested by all
> the places I was at before).
>
> As far as radios, I'll be using two primary radios: an IC-706 and
> IC-2070 (when they finally release it). I don't have the 500W linear
> amplifier yet, but I intend to add it to my setup at some point in the
> future and I'd like to use existing wires unless you all don't think
> it's practical...
>
> Thoughts / Suggestions? Many thanks....

I use heavy duty jumper cable wire for just my rig. It's probably #6,
but I'm not sure. It's real thick stranded wire with thick insulation.
I have to remove strands to fit it into the anderson connector pins. I
snipped it from a set of old jumper cables that had bad clips on them.
But this wire is not to be confused with the thin wire you get from
the cheapy cable sets at walgreens, etc. That stuff is thin. Myself, I
don't recommend running the same wire for both the amp and the radio.
I would want seperate wires for the rig and amp. The way I see it, the
rig itself will have a more stable voltage if it's not on the same
wiring as the amp, which really draws some current on voice peaks. Not
to mention the wire would need to be really thick to run both without
problems. The battery/s itself can dish out some pretty hefty current
without a huge voltage drop. But factor in wire resistance, and high
current draw, and I bet you could see some pretty large swings in
voltage with both on the same line. In a worst case scenario with
marginal wire, you could "FM" when on ssb, or chirp on CW. If the rig
had it's own thick wiring with no other large loads on it, I'd think
it would be more stable. Also, I agree with one, if you plan on
running an amp, plan on large current being available. Don't micky
mouse around in that dept or you will have problems for sure. I'd plan
on 80 amps minimum for any kind of 500w amp. Even if you don't

actually draw that much current on average, you need the capability on voice peaks. Too thin a wire, and the voltage drop will eat your lunch. Also, I use the anderson power connectors. They seem much better than anything at a store. IE: radio shack, etc. I've never had voltage drop/resistance problems with an anderson connector.
I sure have with molex plugs though...Fuses and fuse holders can be a problem after a while also. I remove them and clean and replace every so often. If you can wiggle the fuse holder and see your power output fluctuate, you probably have some resistance and need to clean it out and make sure the holder fits the fuse tightly. Also as a parting shot about wire overkill, remember that what works fine with the engine running at 14-15 volts might have problems after running a while with the engine is off and the voltage starts to drop. The larger the wire you have, the longer "talk time" you have before you reach the critical low voltage point at the rig. Icoms can be picky about this. I've heard many of them chirp and FM when used with thin wire.
It's usually someone that is out camping or rv'ing and using a battery. And probably too thin a wire...I've never had a stability problem with the thick stuff I use running a 730 or a 706. The 730 didn't really care for low voltage too much as far as keeping stable. The 706 will cycle off and on if the voltage drops too far. IE: same as when you start the car and you see the radio recycle itself...But thats a worst case...You would need horrible wiring to have that happen. I've never tested it to see how low a voltage it can run at and be stable yet. I do know it's a current pig. The thing draws nearly 2 amps just on receive if all the lights, etc are on. Will sap a battery down a bit just sitting listening for a while. MK

445. Re: Steppir antenna adjustments

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 08:20:44 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210080020.6866695a@posting.google.com>
Source record: 133384

aunwin@fgi.net (Art Unwin KB9MZ) wrote in message
news:<c4becf19.0210061124.71f3e39a@posting.google.com>...
> The AEA loop antenna used signal strength and/or
> SWR to determine position of antenna setting.
> Reading the instruction book for the STEPPIR Antenna
> it would appear that the 3 element yagi element lengths
> are pre programmed per frequency, which would 'appear'
> that they are not optimumised for different heights.
> Would the difference of height be of no consequence
> compared to preprogrammed figures for front to rear
> etc. for all frequencies between 14 and 30Mhz?
> The antenna was tested at 40 ft when designed.
> Art

As far as I know, it wouldn't matter. IE: a NBS yagi at 40 ft has the
max gain of that boom length/element spacing. At 10 ft, it will still
have the max gain for that boom length/element spacing. The only thing
that changes is the effect of the ground on the pattern. IE: usually
higher angles at lower heights in general. MK

446. Re: Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 08:38:25 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210080038.4be02acd@posting.google.com>
Source record: 133385

Larry Johnson <larryj@teleport.com> wrote in message
news:<3DA09C76.24753FBA@teleport.com>...
> Which model Screwdriver was he using? Looks like there are lots of
> manufacturers out there, all claiming that their antenna is better than
> everyone else's.
> LJ

They differ thats for sure. There is one brand in particular that is
pathetic.
The coil has so much loss, it's a wonder it works at all. And the
worst part is , the guy seems to design them that way on purpose. He
says they give a "good match", or something along those lines...The
antenna a friend of mine bought from him was so low Q, I has trouble
finding the noise peak when adjusting the coil. Really bad news..No
decent mobile antenna can operate without impedance matching. If it
does, look out for excess losses. On the other hand, many are decent
antennas, and comparable to a bugcatcher. Just depends who, and how
they build them. The better ones look kind of like adjustable
bugcatchers. Big fat low loss coils. MK

447. F.S. ICOM IC-730 TRANSCEIVER & ASTRON RS-20A POWER SUPPLY GUARANTEED

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 08:39:17 UTC
From: Dsscircuits <dsscircuits@hotmail.com>
Message-ID: <tQwo9.184$5g7.258730@news.uswest.net>
Source record: 133386

ASTRON RS-20A POWER SUPPLY GUARANTEED $50

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1387183917

HAM RADIO HF ICOM IC-730 TRANSCEIVER Guaranteed $250

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1387187982

448. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 08:49:02 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <qJGcnfTkseI-Nj-gXTWcqA@News.GigaNews.Com>
Source record: 133387

The stranded wire actually has more loss than solid wire of the same diameter. If used for the center of coax it is only a few tenths of a DB at vhf. For a antenna tha additional loss is so low that it doesn't make any differance.

"Henrik" <henrik> wrote in message news:3da1a565$0$84316$edfadb0f@dspool01.news.tele.dk...
> For electrical performance of wire antennas, should one prefer multi
> stranded (and isolated) wire, with a higher surface area , hence lower
> resistance for the high frequency current, or massive enamelled copper wire,
> if the cross sections are equal?
>
> And is the answer the same if focus is mechanical strength and
> ageing/corrosion?
>
> Rgds
> Henrik
>
>
>

449. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 10:40:39 UTC
From: elbc2@gwi.net
Message-ID: <1103_1034073639@news.gwi.net>
Source record: 133388

On Mon, 7 Oct 2002 17:16:55 +0200, "Henrik" <henrik> wrote:
> For electrical performance of wire antennas, should one prefer multi
> stranded (and isolated) wire, with a higher surface area , hence lower
> resistance for the high frequency current, or massive enamelled copper wire,
> if the cross sections are equal?
>
> And is the answer the same if focus is mechanical strength and
> ageing/corrosion?
>
> Rgds
> Henrik
>
Henrik,
as others have pointed out there is very little if any difference in performance in strandard vs. solid wire
antennas at HF. The one consideration that is important is actual strength. I've have very good sucess with
cheap #14 Stranded Thnn wire here. Use it for my 160M Loop (520') horizontal loop. works great been up 4 years
now.. It will not do well in heavy Ice , for that I'd used copperweld. But for most HF antennas it works
great. I've personally have problems with the enamalled solid wire , it breaks after a few years of flexing in
the wind. (But I use trees for support) if you have a pole or tower then the problem with solid wire might
not be as bad.) My rule of thumb is that if using solid copper wire I go up to sizes in guage.
Just my two cents worth..
73 Dave kc1di

450. test

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 11:03:09 UTC
From: KC1DI <elbc2@gwi.net>
Message-ID: <9qe5qusvnnohg3d5anpd0p9ed6nepdp31l@4ax.com>
Source record: 133389

```
test message
```

451. Re: A portable antenna for DXing ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 11:20:07 UTC
From: F8BOE Olivier <f8boe@free.fr>
Message-ID: <3da2c081$0$10717$626a54ce@news.free.fr>
Source record: 133390

Hello Thierry,

The easiest and more practical way is the piece of electric wire! It's unexpensive and if you have two ones of approximatively 10 meters each, you can step in for a dipole, Marconi, Levy with a coupler and ladder line, folded dipole, rhombic or loop antennas.
For field action you just have to add a fiberglas pole.
And tht's it, the perfect travel setup.

73 de F8BOE Olivier ...-.-

452. Re: A portable antenna for DXing ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 11:24:51 UTC
From: F8BOE Olivier <f8boe@free.fr>
Message-ID: <3da2c082$0$10717$626a54ce@news.free.fr>
Source record: 133391

Hello Thierry,

The easiest and more practical way is the piece of electric wire! It's unexpensive and if you have two ones of approximatively 10 meters each, you can step in for a dipole, Marconi, Levy with a coupler and ladder line, folded dipole, rhombic or loop antennas.
For field action you just have to add a fiberglas pole.
And tht's it, the perfect travel setup.

73 de F8BOE Olivier ...-.-

453. Helical Antenna Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 11:52:48 UTC
From: Dean Elwood <dean@legallyspeaking.co.uk>
Message-ID: <anugufonn1@helle.btinternet.com>
Source record: 133392

Hi,

Well, I just passed my Foundation Licence Amateur Radio exam. I'm taking the RAE Full Class A in December (my morse is now up to speed), but did the Foundation as a means of getting on the air sooner.......

My main interest in this hobby is in antenna design (having done a little of this when I was a kid playing around with 49mhz walkie talkies (of about 25mw!) and trying to get a range of more than 10 feet line of sight!

I'm particularly interested now in helical antenna design, and possibly in the application of that within standard dipole design. I live in a flat where there's no way I could put up a G5RV in the garden.......

So, small is indeed beautiful as far as I'm concerned.

I'd be really grateful if anyone on here could point me in the direction of some good resources (either in old fashioned book form or on the internet) for helical design. Also if anyone has tried building a dipole using helical rather than straight elements, I'd be interested to hear from you. I may also try out one of those Isotron antennas I've read a little about - anyone here using one?

In the meantime, hope to catch some of you on the air for a first contact!

Dean
M3DPE (on the air in a couple of weeks when I'm rigged up!)

454. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 12:57:06 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA2D622.745C97D6@ieee.org>
Source record: 133393

Fred Hambrecht wrote:
> Was it fractal or E/H?

More like "Supergain". NEC has a problem with very closely-coupled elements.

> "CAM" <Cecil.A.Moore@ieee.org> wrote:
> > I once designed an omnidirectional 40m antenna that EZNEC said had a
> > 22dBi gain. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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455. Re: Helical Antenna Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 13:08:01 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA2D8B1.94272FFA@ieee.org>
Source record: 133394

Dean Elwood wrote:
> I'd be really grateful if anyone on here could point me in the direction of
> some good resources (either in old fashioned book form or on the internet)
> for helical design. Also if anyone has tried building a dipole using helical
> rather than straight elements, I'd be interested to hear from you.

There is a wealth of experience with helical mobile antennas. They are
not as efficient as bugcatchers or screwdrivers. The same principles
apply to a dipole. For efficiency, high-Q loading coils and large capacitive
end hats are the way to configure shortened dipoles.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

456. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 13:14:34 UTC
From: cprstn54zz@att.net
Message-ID: <3da2d839.24941937@news-server.optonline.net>
Source record: 133395

On Tue, 08 Oct 2002 00:53:21 GMT, cprstn54zz@att.net (Ken) wrote:

>On Mon, 07 Oct 2002 16:20:48 -0700, Roy Lewallen <w7el@eznec.com>
>wrote:
>I take back what I said. EZNEC gives some very surprising results.

Thanks to help from W7EL with EZNEC, I corrected the ground type and
went to split feeds for greater accuracy. My results are nevertheless
interesting.

For a horizontal dipole, optimum NVIS on 40M seems to occur with the
dipole 20 ft up and the reflector on the ground and 6" longer than the
dipole. This was expected.

For the inverted-V dipole, I found that the best practical result was:

Center 23 ft up. (= 20 ft roach pole plus a little PVC pipe)
Ends 11.5 ft up.
Reflector center 11.5 ft up.
Reflector ends on the ground.
Reflector 4 ft longer than the dipole.

The gain of this inverted-V dipole was only around 0.2 dB lower than
the horizontal one.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

457. Re: Helical Antenna Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 13:23:59 UTC
From: Dean Elwood <dean@legallyspeaking.co.uk>
Message-ID: <anum9fljr1@knossos.btinternet.com>
Source record: 133396

Many thanks CAM.

I'd be grateful if you could point me in the right direction for finding
that wealth of information!!

Cheers,

D

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DA2D8B1.94272FFA@ieee.org...
> Dean Elwood wrote:
> > I'd be really grateful if anyone on here could point me in the direction
of
> > some good resources (either in old fashioned book form or on the
internet)
> > for helical design. Also if anyone has tried building a dipole using
helical
> > rather than straight elements, I'd be interested to hear from you.
>
> There is a wealth of experience with helical mobile antennas. They are
> not as efficient as bugcatchers or screwdrivers. The same principles
> apply to a dipole. For efficiency, high-Q loading coils and large
capacitive
> end hats are the way to configure shortened dipoles.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
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458. TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 13:50:16 UTC
From: RMO <rmo7@bellsouth.net>
Message-ID: <soBo9.34619$S8.700528@twister.tampabay.rr.com>
Source record: 133397

I have a 1 acre lot that is mostly tall trees and I wanted to know how bad it is going to be if I get back into radio. I do have about a 40 x 30 area out back that is clear but on the border of this area is the house and tall trees about 40 feet high. Probably start with a dipole, eventually an hf vertical but there again the house is embedded in the trees so its tough to find a good spot to mount a pole that is not next to tree branches.

Let me know what you think about a dipole in the clear but bordered area, will it be ok or will it really dampen my operating?

Thanks!
Richard
KD4UWV

459. Re: Portable Magloop from 80-6m (also working on 2m)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 14:12:59 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210080612.1d8459f0@posting.google.com>
Source record: 133398

Mike Coslo <mcoslo@adelphia.net> wrote in message news:<3DA246FD.1000505@adelphia.net>...
> Art Unwin KB9MZ wrote:
>
> > Personaly I find it very encouraging to see somebody else showing
> > that a small 'loop' can be resonant down to 80 meters.
snip>
>
> How big is your loop?
>
> As for tuning a small loop down to 80 meters, there isn't any problem,
> except efficiency suffers.
>
> I'm really curious about the other params of your loop, maybe you are
> doing something differently. I did some quick calculations and a 1 meter
> loop (that was my guess at small) looked really inefficient, and had
> almost 10 kV at the capacitor, which was pretty big.
>
> I'm no expert at magloops, being in the process of building my first one,
> but these are some pretty spetacular claims.
>
> - Mike KB3EIA -

Mike, my loop is used in combination with another radiator (a dipole)
where it is tuned to resonate the combination. The archives have a lot
on combination loop/dipoles, but to be honest claims are viewed by
many as similar to those made for E/H antennas.
Art

460. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 14:13:30 UTC
From: richardharrison@webtv.net
Message-ID: <8456-3DA2E80A-662@storefull-2316.public.lawson.webtv.net>
Source record: 133400

Tam, WB2TT wrote:
"---once had some WW2 military field telephone wire that had both copper and steel strands."

That was tough stuff.

Wire antenna requirements are often similar to aerial open-wire phone lines. Winds of 8-12 pounds per square foot (60-70 mph) with 1/4-1/2 inch ice loading may be anticipated at temperatures of 0 degrees F, for example. Spans between phone poles is often 150-200 feet.

Copper wires have a breaking strength compared with Copperweld:
#12 320 lbs. 750 lbs.
#14 200 lbs. 500 lbs. (0.064 inch)
#16 130 lbs. 310 lbs.
#18 80 lbs. 190 lbs. (0.040 inch)
#20 50 lbs. 120 lbs.

Wires are often pretensioned to about 10% of breaking strencth. Sag can be determined from temperature and tension in the wire. If appearance and accidental contact aren`t issues, some sag is usually unimportant.

The Signal Corps had at least 3 varieties of roll-out telephone pair wire, "assault wire", "field wire", and "tactical wire". Your phone company uses permanent "tactical wire". Each variety at times came in various lengths, wire compositions, and insulations.

I bought surplus, at the end of WW-2, a DR-5 reel of W-110-B (Field wire). This was one mile (5,280 feet) 154 pounds on the reel or 120 pounds minus the reel. It was twisted pair, each conductor was rubber and braid covered and composed of three 0,0135-inch copper strands and four 0.013-inch steel strands.

The Signal Corps advised not to load this field wire in excess of 40% of its breaking strength of 300 pounds. Limit on some other wires was 30%.

I found a lot of uses for this wire.

Best regards, Richard Harrison, KB5WZI

461. Re: TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 14:23:40 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DA2E9D8.689CE457@tampabay.rr.com>
Source record: 133399

well with all those trees i would put up full wave loops for what ever band you
wish to work on
the only bands your going to have a real problem with are VHF and above and if
you really wanted yagis
but hey nothing is forever you could always cut a couple of the trees down
that are near the house and then put up a BIG tower to get over the tops of the
trees and then you can put up what ever you want
but for HF trees are your friends cause you can string wires from them and the
leaves dont block any of the RF
good luck

RMO wrote:

> I have a 1 acre lot that is mostly tall trees and I wanted to know how
> bad it is going to be if I get back into radio. I do have about a 40 x 30
> area out back that is clear but on the border of this area is the house and
> tall trees about 40 feet high. Probably start with a dipole, eventually an
> hf vertical but there again the house is embedded in the trees so its tough
> to find a good spot to mount a pole that is not next to tree branches.
>
> Let me know what you think about a dipole in the clear but bordered area,
> will it be ok or will it really dampen my operating?
>
> Thanks!
> Richard
> KD4UWV

462. Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 15:16:43 UTC
From: Brent <brent316@yahoo.com>
Message-ID: <vFCo9.51192$aU3.2740367@typhoon.kc.rr.com>
Source record: 133401

I'm thinking of building one of these antennas. My plan is to use the all coax approach. 125ft of RG59 going vertical about 40-50 ft and the rest horz. Then lay down about 10-15 or so 63ft ground radials. I plan on feeding this with some LMR400. Does anyone see a problem with this configuration? Also is there anyone using this type of setup? Any Pro/Cons?

Thanks

Brent N9BC

463. Re: TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 15:25:13 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA2F8D9.57D03C4D@cwis.net>
Source record: 133402

Richard,
I wish I had your problem! Mine is just the opposite,
not enough tall trees to hang antennas from. While an
antenna should be 'in the clear', it certainly isn't an
absolute necessity, and antennas running through the trees
should work just fine for you. Sure, the trees will affect
the antenna to some extent, but not enough to really be
noticable on Hf. If the trees are close enough that there's
no way to get an antenna up, they're too close and should be
'thinned out' anyway. Put up an antenna and have fun...
'Doc

464. FA: Heathkit Auto Ant Rotator Controller

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 15:28:04 UTC
From: Ronald Oberloh <wa0kds@yahoo.com>
Message-ID: <3DA2F981.11D2E0FB@yahoo.com>
Source record: 133403

Just listed this unit last night and want to make sure anyone that is interested in it has a chance at it. I have one and love it. Thanks
Ron WA0KDS PHX AZ

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1387165850&rd=1

465. FA: HAM IV Ant Rotator

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 15:30:08 UTC
From: Ronald Oberloh <wa0kds@yahoo.com>
Message-ID: <3DA2F9FF.A8C1653D@yahoo.com>
Source record: 133404

Needs some work but my reserve is pretty low.

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1387167565&rd=1

466. FA: Antenna Switch

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 15:32:04 UTC
From: Ronald Oberloh <wa0kds@yahoo.com>
Message-ID: <3DA2FA73.88CEBADC@yahoo.com>
Source record: 133405

Nobody can have just one antenna.....

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1387169568&rd=1

467. Re: removing busted bolts from bottom of tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 15:37:59 UTC
From: Guy <guy_wire@nospam.com>
Message-ID: <3DA2FBAC.7454F2C8@nospam.com>
Source record: 133406

Hi Dave,

Before you have to cut or torch, find a ham that has an air compressor, a large one with an impact hammer gun and the proper tips (or rent one).

You should be able to force the broken bolts out of the leg with the impact from

the hammer gun.

If you need to cut and drill, get some help to bring the drill press outside so you
can work safe and in the light.

73 guy

Dave wrote:.

> My problem is that two of these total of six holes have broken off bolts
> inside them. The bolts are broken flush with the tower leg so there's
> nothing to grab onto. The bolts are steel and they pass through some sort
> of reinforcement metal inside the tube of the leg -- I'm not sure what this
> material is. I've drilled holes in them and tried an easy-out -- no luck
> whatsoever. They don't budge. From the appearance of the other clear
> holes, I don't believe these broken bolts are threaded through the holes --
> there may be threads on the bolts, but not in the female portion it passes
> through. I've applied heat with a fine tipped OA torch with no luck --
> that's tricky because of the nearby aluminum -- too much heat and there goes
> the tower leg, so I may not have applied enough heat. I also tried Liquid
> Wrench -- no luck.
>
> My holes in these bolts are not perfectly on center, so it would be almost
> impossible for me to drill out the bolts without enlarging and elongating
> the hole itself. In fact, one of the bolts is so hard that I can't get a
> drill to pass through it. The bit just spins. I resharpened the bit, and
> still no luck. I got a good way in from both sides of this bolt, but there
> is some sort of hard spot in the center that I can't get through.
>
> I am about to cut off the bottom 4" of each leg and start over, but then I'd
> be faced with drilling the holes on the 2 legs perfectly in line which would
> be very difficult "in the field" (the tower won't fit in my basement where
> the drill press is!).
>
>

468. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 15:45:28 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA2FD98.199FCBFF@cwis.net>
Source record: 133407

Henrik,
It makes very little difference whether you use stranded
or single conductor wire. The primary difference on HF is
mechanical. There are some differences, though, which deal
primarily with where you live and the amount of 'stuff' in
the air (polution). Bare stranded wire tends to corrode and
the movement of the strands of the wire can produce noise
because of the differences between how much each strand does
corrode. In areas that have a large amount of polutants this
is more noticable than in areas that are less poluted. The
'cure' for this is to simply use insulated wire and seal the
ends that have to be bare. Also, this corrosion 'noise' isn't
a big problem to start with, but it is there.
Mechanically, stranded wire tends to be easier to work with.
It tends to 'kink' less, and is easier to bend.The biggest
difference, at least in the area where I live, is in cost. The
stranded wire seems to be less expensive depending on size.
So, the 'best' type of wire for HF use is whatever you happen
to have the most of, that's strong enough to support it's self.
'Doc

469. Re: Helical Antenna Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 15:54:23 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <anuv3e$o6n$1@paris.btinternet.com>
Source record: 133409

"Dean Elwood" wrote
> I'm particularly interested now in helical antenna design, and possibly in
> the application of that within standard dipole design.

==========

A helical antenna, very short in terms of a wavelength, is one where the loading coil is elongated to cover much of the length of the antenna. The inductance of a helical loading coil, length, diameter, number of turns, etc., is exactly that which resonates a very short vertical antenna to behave similarly to a full size 1/4-wave vertical - except that it is much less efficient. For a vertical a good ground connection, such as a number of shallow-buried radial wires, is needed.

For analysis af performance of short, simple, helically-wound, vertical antennas download in a few seconds program HELICAL3 from website below. Run immediately. No unzipping inconvenience. The helix can be capacitance loaded with a rod.

Two 1/4-wave verticals connected-back-to-back behave as a short, horizontal, half-wave resonant antenna. This has the advantage of zero ground connection loss.

For design and analysis of performance of centre or helically-loaded horizontal dipoles download program MIDLOAD from website below. The antenna ends can be loaded with rods or wires to change frequency.

==========

> I live in a flat
> where there's no way I could put up a G5RV.

==========

Don't worry, there's nothing lost. The G5RV with its supposedly critical dimensions and extra length of lossy coax, wherever space can be found to erect it, taking one band with another, is always less efficient than any ordinary, random length, similar size diople. But not a lot ;o).

==========
Regards from Reg G4FGQ
Free Radio Design Software
Go to http://www.g4fgq.com
==========

470. Re: TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 15:54:26 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <guucnbbsuKMAYj-gXTWc3A@News.GigaNews.Com>
Source record: 133408

I have a bunch of 80-100 foot oak and tulip trees on the property. The tribander and 6 and 2 mbeams are at about 40 -46 feet. The trees do not seem to cause a problem. I would not worry about them below 430 MHz. Had to have 1 tree taken down so I could rotate the tribander. On the other hand they allow the 75 m antenna to top out at 75 feet.

Tam/WB2TT
"RMO" <rmo7@bellsouth.net> wrote in message
news:soBo9.34619$S8.700528@twister.tampabay.rr.com...
> I have a 1 acre lot that is mostly tall trees and I wanted to know how
> bad it is going to be if I get back into radio. I do have about a 40 x 30
> area out back that is clear but on the border of this area is the house
and
> tall trees about 40 feet high. Probably start with a dipole, eventually an
> hf vertical but there again the house is embedded in the trees so its
tough
> to find a good spot to mount a pole that is not next to tree branches.
>
> Let me know what you think about a dipole in the clear but bordered area,
> will it be ok or will it really dampen my operating?
>
> Thanks!
> Richard
> KD4UWV
>
>

471. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 15:56:35 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA30033.54DFBE@cwis.net>
Source record: 133410

Ken,
The size of the wire should be large enough so that it will support it's own weigth plus whatever ice, etc, may form on it. For HF purposes, if the wire ~will~ support it's own weight, there will probably be very little advantage in using larger wire.
Another wire placed under the dipole will make a difference in the radiation pattern of the antenna. So will having a very good ground system (basically the same thing, sort of), and varying the height of the antenna. How much difference will it make? I don't think anyone can tell you that (including those using antenna modeling programs), so try it. See for your self. I can say that there isn't going to be anything close to 20 dbi of difference!(LOL)
'Doc

472. Re: cutting down 2m antenna for marine VHF band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 16:01:33 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA3015D.30307C65@cwis.net>
Source record: 133411

WF3H,
Yes, you can cut the antenna for use in the 150 Mhz
area. How much you will have to shorten the antenna
depends on the impedance matching device at the base
of the antenna, though. Trim it in very small 'chunks'
while watching the SWR. It'll be easy to go too far,
so take your time.
'Doc

473. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 16:23:58 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <anv0qtdrk1@helle.btinternet.com>
Source record: 133412

> Does anyone see a problem with this configuration?

==========

Yes. Where do you feed it ?

Reg

474. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 17:01:14 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <8vmdnW5_KvPZkj6gXTWcpg@News.GigaNews.Com>
Source record: 133413

Dave,

That seems like a good summary of what most people agree with. To keep the wire from, breaking in a windstorm, I found the following works: Fasten down one end of the support wire (rope) only. I tie the end of the other one to a cement block, resting on the ground some distance from the tree branch that it goes over. When the trees move, the cement block will move closer to the tree, giving more slack. Note that there is not a continuous motion like you would get with a pully. In the worst case, you have to put the cement block where it belongs once or twice a year. The best material I have found for the end "wires" is black Dacron rope. Also, plastic cowered clothes line is much superior to some kinds of rope, which will rot in a few months. As for ice, clearly the problem gets worse the longer the span. Probably a NOP at 20 meters and hugher.

Tam/WB2TT
<elbc2@gwi.net> wrote in message news:1103_1034073639@news.gwi.net...
> On Mon, 7 Oct 2002 17:16:55 +0200, "Henrik" <henrik> wrote:
> > For electrical performance of wire antennas, should one prefer multi
> > stranded (and isolated) wire, with a higher surface area , hence lower
> > resistance for the high frequency current, or massive enamelled copper
wire,
> > if the cross sections are equal?
> >
> > And is the answer the same if focus is mechanical strength and
> > ageing/corrosion?
> >
> > Rgds
> > Henrik
> >
> Henrik,
> as others have pointed out there is very little if any difference in
performance in strandard vs. solid wire
> antennas at HF. The one consideration that is important is actual
strength. I've have very good sucess with
> cheap #14 Stranded Thnn wire here. Use it for my 160M Loop (520')
horizontal loop. works great been up 4 years
> now.. It will not do well in heavy Ice , for that I'd used copperweld.
But for most HF antennas it works
> great. I've personally have problems with the enamalled solid wire , it
breaks after a few years of flexing in
> the wind. (But I use trees for support) if you have a pole or tower then
the problem with solid wire might
> not be as bad.) My rule of thumb is that if using solid copper wire I go
up to sizes in guage.

> Just my two cents worth..
> 73 Dave kc1di
>
>
>
>

475. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 17:06:32 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DA3103E.ACFB11EC@uwe.ac.uk>
Source record: 133414

Wes Stewart wrote:
>
> Unless of course, you are using window line and you add water <g>.
>
Turtle Wax. Any good water repellent car wax will improve the
standard black windowed line no end in wet condx. Needs
repeating when you wax the car.

Andy, M3ABC

476. Re: Berylium copper Wire

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 17:20:56 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DA3139F.B5A00AA9@uwe.ac.uk>
Source record: 133416

"Ian White, G3SEK" wrote:
>
> Dick Carroll wrote:
>
> >It's good to know there was no hazard after all.
>
> Not unless you're operating a crusher plant.
>
> >I assume you've ran all that by the folks at Eimac, they're the people
> >who included the warning notices.
> >
> The information does ultimately come from Eimac. The warning notice is
> there because the beryllia is there... but it's inside.
>

Some X-ray tubes use metallic beryllium for the windows, low atomic
weight means it's transparent at quite low energies. They come
with a similar warning. Be careful, the toxicity is dangerous,
over and above any carcinogenic risk. Even Be/Cu alloys should
be treated with caution - no grinding and cut under water.

Andy, M3ABC

477. Re: Steppir antenna adjustments

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 17:25:47 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210080925.3df10c3@posting.google.com>
Source record: 133415

Mike,that explains how they can claim front to rear then.
Presumably it does not change with height variations
Art

nm5k@wt.net (Mark Keith) wrote in message
news:<25eb70d7.0210080020.6866695a@posting.google.com>...
> aunwin@fgi.net (Art Unwin KB9MZ) wrote in message
news:<c4becf19.0210061124.71f3e39a@posting.google.com>...
> > The AEA loop antenna used signal strength and/or
> > SWR to determine position of antenna setting.
> > Reading the instruction book for the STEPPIR Antenna
> > it would appear that the 3 element yagi element lengths
> > are pre programmed per frequency, which would 'appear'
> > that they are not optimumised for different heights.
> > Would the difference of height be of no consequence
> > compared to preprogrammed figures for front to rear
> > etc. for all frequencies between 14 and 30Mhz?
> > The antenna was tested at 40 ft when designed.
> > Art
>
> As far as I know, it wouldn't matter. IE: a NBS yagi at 40 ft has the
> max gain of that boom length/element spacing. At 10 ft, it will still
> have the max gain for that boom length/element spacing. The only thing
> that changes is the effect of the ground on the pattern. IE: usually
> higher angles at lower heights in general. MK

478. M2 10M4DX Dimensions?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 17:47:07 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DA31A1B.CB943C7@netscape.net>
Source record: 133417

Does anybody have the dimensions for the M2 10M4DX handy? I wanted see what NEC2 (I know it has tapered elements) has to say about it. I could use the dimensions, or I'll take a file if somebody has entered it already.
email: scott2rp789@netscape.net

Thanks!

Scott.

479. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 17:51:41 UTC
From: Henrik <henrik>
Message-ID: <3da31b2e$0$23913$edfadb0f@dspool01.news.tele.dk>
Source record: 133418

THANK YOU for your input!

73,
Henrik
(Who will take the advice from Reg (in his answer from the 5. of Oct. to a G5RV mail), and make a ladder line fed dipole of max length that fits to my plot, and experiment with loops for local activities om 80m, both in massive copper, as it is the cheapest here, and you guys advice it as good as stranded!)
Thanks again!

480. wanted: cushcraft 5el 6 meter bean & rotator

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 18:12:22 UTC
From: "Mitch, W4OA" <w4oa@arrl.net>
Message-ID: <uq6807qg80kp60@corp.supernews.com>
Source record: 133319

let me know what you have...

thanks
mitch, w4oa

481. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 18:22:08 UTC
From: Brent <brent316@yahoo.com>
Message-ID: <knFo9.51206$aU3.2763682@typhoon.kc.rr.com>
Source record: 133320

I was going to feed it at the base of the antenna.

Brent

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:anv0qtdrk1@helle.btinternet.com...
>
> > Does anyone see a problem with this configuration?
>
> ==========
>
> Yes. Where do you feed it ?
> ---
> Reg
>
>
>

482. wanted: cushcraft 5el 6meter bean & rotator

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 18:24:12 UTC
From: "Mitch, W4OA" <w4oa@arrl.net>
Message-ID: <uq68mdm4m1spec@corp.supernews.com>
Source record: 133321
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.space,rec.radio.swap

must be in good condx...
let me know what you have...

thanks
mitch, w4oa
NOSPAMw4oa@vibroplex.com

483. Re: Helical Antenna Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 18:26:38 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA3235E.FCA7CD50@ieee.org>
Source record: 133323

Dean Elwood wrote:
> I'd be grateful if you could point me in the right direction for finding
> that wealth of information!!

I'm not sure that wealth of *experience* is written down anywhere. It stands to reason that the highest-Q coils have the least losses. The Q of a helical-wound HF antenna is pretty low compared to a bugcatcher coil, for instance.

75m mobile antennas are a study in performance Vs length. Virtually everything is known about them. High-Q center-loaded coils and very large top hats win the 75m mobile shootouts virtually every time.

Decide how long your dipole can be. Decide how big your end hats can be. In the center of each leg, install the highest-Q coil with the lowest amount of inductance that it takes to bring the dipole to resonance. That's just about as efficient as a shortened dipole can be.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

484. Re: Hop hop hop...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 18:30:46 UTC
From: Thierry Lombry <lombryt@hotmail.com>
Message-ID: <3da32436$1_2@news.vo.lu>
Source record: 133322

Hi,

This mail and others I received in my private mailbox confirmed the "basic propagation notions" I knew and publsihed on my website, that HF waves propagated via the ionosphere layers what explains this skip distances for nearby stations. I knew all you stated and I prefer your explanation to my divagations, based probably on partly misunderstood of my problem by my friend when I questionned him, and my bad interpretation of his answer.

73
Thierry

485. Feeding techniques for notch antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 18:50:26 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0210081050.552d1c08@posting.google.com>
Source record: 133324

Hi,
I need help in feeding methods for notch antenna. I built a
notch for 2.4 and 5.78GHz and facing trouble in feeding it. Is coax
feed used for notch or microstrip line as in slot.Kindly explain.

Thanks in advance.

486. Best noise canceller : MFJ or Timewave ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 18:52:47 UTC
From: Thierry Lombry <lombryt@hotmail.com>
Message-ID: <3da32960_2@news.vo.lu>
Source record: 133325

Hi,

I would like to buy a noise canceler for a friend as a gift to help in suppressing some directional nosies. I use several time the MFJ-1026 but I don't know the Timewave ANC-4 (ex-JPS) that looks more modern . Both devices works exactely the same way (cancelling noises in phase opposition using a 2d antenna) and prices are nearly similar ($180-210). Only problem there is maybe no dealer for Timewave in Europe, so i suspect their proeuct to be about 25% more expensive.

Has someone already made a test of both devices and find one better than the other to remove RFI (QRM) ?

NB. As I don't know the Timewave yet I'am of course more attracted by it, but is a good idea.

Thanks for comments

Thierry
http://www.astrosurf.com/lombry/menu-qsl.htm

487. Re: wanted: cushcraft 5el 6meter bean & rotator

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 19:43:59 UTC
From: Henrik <henrik>
Message-ID: <3da3357d$0$23933$edfadb0f@dspool01.news.tele.dk>
Source record: 133331
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.space,rec.radio.swap

"Mitch, W4OA" <w4oa@arrl.net> wrote in message
news:uq68mdm4m1spec@corp.supernews.com...
> must be in good condx...
> let me know what you have...
>
> thanks
> mitch, w4oa
> NOSPAMw4oa@vibroplex.com
>
do you need one or two?

488. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 19:44:18 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <mAGo9.51784$VQ2.10937965@twister.midsouth.rr.com>
Source record: 133326

I'm assuming you want to use this antenna on all bands. Where are you
putting the antenna tuner? Why are you using LMR400?

Ken

"Brent" <brent316@yahoo.com> wrote in message
news:vFCo9.51192$aU3.2740367@typhoon.kc.rr.com...
> I'm thinking of building one of these antennas. My plan is to use the all
> coax approach. 125ft of RG59 going vertical about 40-50 ft and the rest
> horz. Then lay down about 10-15 or so 63ft ground radials. I plan on
feeding
> this with some LMR400. Does anyone see a problem with this configuration?
> Also is there anyone using this type of setup? Any Pro/Cons?
>
> Thanks
>
> Brent N9BC
>
>

489. Re: TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 19:46:58 UTC
From: RMO <rmo7@bellsouth.net>
Message-ID: <SCGo9.98502$O8.2284340@twister.tampabay.rr.com>
Source record: 133327

Thanks for the replies! I'll be setting up the shack this week/weekend. Been awhile.

Rich

"RMO" <rmo7@bellsouth.net> wrote in message news:soBo9.34619$S8.700528@twister.tampabay.rr.com...
> I have a 1 acre lot that is mostly tall trees and I wanted to know how
> bad it is going to be if I get back into radio. I do have about a 40 x 30
> area out back that is clear but on the border of this area is the house and
> tall trees about 40 feet high. Probably start with a dipole, eventually an
> hf vertical but there again the house is embedded in the trees so its tough
> to find a good spot to mount a pole that is not next to tree branches.
>
> Let me know what you think about a dipole in the clear but bordered area,
> will it be ok or will it really dampen my operating?
>
> Thanks!
> Richard
> KD4UWV
>
>
>

490. Re: License plate mount for Hamstick?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 19:49:13 UTC
From: Paul N3EOP <n3eop@arrl.or.callsign.net>
Message-ID: <Xns92A1826A56B39n3eophotmailcom@64.164.98.29>
Source record: 133328

Andy KC2SSB wrote:

> Hello. I am considering a hamstick for 6 meters and someone suggested
> that I use a license plate mount offered on the hamstick website at
> http://www.hamstick.com/Tm-1.html. Has anyone ever used one of these
> mounts? Does it require that you use metal screws on the license plate
> (I use plastic to prevent rust).

I have one that I modified to use the Yaesu ATAS-100 "mini screwdriver" antenna, and it works very well. It's designed for Hamsticks, and the ATAS-100 is well beyond the manufacturer's ratings, but I've had no problems.

I would NOT use plastic/nylon screws with this mount. The forces put on the screws by the wind would probably break them, or pull them out in short order. Also, make sure that the screws are going into a metal fastener, and not nylon inserts. My car (a Camry S/W) has nuts welded to the metal inside the hatch, so it works fine for me. If it had nylon inserts, I would have probably popped them out, and used a drilled/tapped piece of bar stock on the inside of the sheet metal.

Another reason to use metal screws is that it grounds the mount.

Someone else questioned the use of this mount with a halo/squalo. It would work just fine. Use a piece of 3/8-24 all-thread in the mount (don't connect the coax to the mount!), and use a couple of nuts at the top end. There are masts made for this; I think M2 makes (made?) them for their HO Loops. And as for VHF/UHF verticals, they work just fine on this mount, as long as they are fairly long (get a bit of metal up in the clear). A bumper mount 1/4 wave 2m antenna just isn't going to cut it.

491. FS Ham IV 250.00

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 19:52:39 UTC
From: wb4una@aol.com
Message-ID: <20021008155239.00616.00000093@mb-bk.aol.com>
Source record: 133329

in great condition...just checked out and ready to install in tower.will ship us..

randy

ARS: WB4UNA
Randy Chavis
247 Goff Court
West Columbia
S.C. 29172

492. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 19:54:37 UTC
From: Brent <brent316@yahoo.com>
Message-ID: <1KGo9.51218$aU3.2788580@typhoon.kc.rr.com>
Source record: 133330

Actually I was only going to use this for 160. As for the lmr400 thats what
I have laying aroung I know abit overkill for this project. The tuner will
be in the shack. Hopefully if my math is correct I shouldn't need it.

Brent

"Ken N4VSD" <REMOVECAPSn4vsd@yahoo.com> wrote in message
news:mAGo9.51784$VQ2.10937965@twister.midsouth.rr.com...
> I'm assuming you want to use this antenna on all bands. Where are you
> putting the antenna tuner? Why are you using LMR400?
>
>
> Ken
>
> "Brent" <brent316@yahoo.com> wrote in message
> news:vFCo9.51192$aU3.2740367@typhoon.kc.rr.com...
> > I'm thinking of building one of these antennas. My plan is to use the
all
> > coax approach. 125ft of RG59 going vertical about 40-50 ft and the rest
> > horz. Then lay down about 10-15 or so 63ft ground radials. I plan on
> feeding
> > this with some LMR400. Does anyone see a problem with this
configuration?
> > Also is there anyone using this type of setup? Any Pro/Cons?
> >
> > Thanks
> >
> > Brent N9BC
> >
> >
>
>

493. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 20:02:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uq6ee1b94iom63@corp.supernews.com>
Source record: 133332

Actually, NEC does quite well with most close spaced and tightly coupled elements, provided that you make sure the segment junctions are aligned if the wires are parallel or nearly parallel. It's MININEC that has the most trouble with closely spaced wires. The original MININEC3 would pretty much come unglued if the wires got too close, but there's a simple code change that can fix this. (See "MININEC: The Other Edge of the Sword", _QST_, Feb. 1991.) But even when fixed, the segment length in a MININEC model should never exceed about twice the wire spacing. NEC and NEC-based programs like EZNEC can get by with considerably sparser segmentation provided the segment junctions are aligned.

Roy Lewallen, W7EL

CAM wrote:
> Fred Hambrecht wrote:
>
>>Was it fractal or E/H?
>
>
> More like "Supergain". NEC has a problem with very closely-coupled elements.
>
>
>>"CAM" <Cecil.A.Moore@ieee.org> wrote:
>>
>>>I once designed an omnidirectional 40m antenna that EZNEC said had a
>>>22dBi gain. :-)
>>

494. Re: M2 10M4DX Dimensions?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 20:08:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uq6eosgge0n9e1@corp.supernews.com>
Source record: 133333

An NEC-2 analysis of a beam with tapered elements will almost certainly show a pretty badly inaccurate front/back ratio. If you want good results, you'll have to calculate and enter the constant-diameter equivalent. A method for doing this is given in Leeson, _Physical Design of Yagi Antennas_. NEC-2 based programs like EZNEC use this method.

Roy Lewallen, W7EL

Scott wrote:
> Does anybody have the dimensions for the M2 10M4DX handy? I wanted see
> what NEC2 (I know it has tapered elements) has to say about it. I could
> use the dimensions, or I'll take a file if somebody has entered it
> already.
> email: scott2rp789@netscape.net
>
> Thanks!
>
> Scott.
>

495. Re: TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 20:45:20 UTC
From: richardharrison@webtv.net
Message-ID: <8456-3DA343E0-85@storefull-2314.public.lawson.webtv.net>
Source record: 133335

Richard, KD4UWV wrote:
"Let me know what you think about a dipole in the clear but bordered area, will it be ok or will it really dampen my operating?"

"Electrical Communication Systems Engineering" was commissioned by the War Department in 1945. Leading experts were collected to produce it for , according to General George Marshall, "the information and guidance of all concerned". It is encyclopedic.

Excerpts:
"the best locatiion for a rhombic antenna (ditto for a dipole) is over flat, level terrain with no obstructions beneath or surrounding an antenna. ---Isolated trees within the rhombic area will have negligible effect on the performance of the antenna. However, the antenna should not be erected over a heavily wooded area where the trees are an appreciable height compared to the rhombic.

For a horizontal antennas over the earth, the required take-off angle for the sky wave is the same as the angle in the reverse direction back to the antenna. The reflection point should be clear of obstructions. This is simple geometry and graphics.

Best regards, Richard Harrison, KB5WZI

496. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 21:03:44 UTC
From: richardharrison@webtv.net
Message-ID: <8456-3DA34830-86@storefull-2314.public.lawson.webtv.net>
Source record: 133334

Brent wrote:
"Hopefully if my math is correct I shouldn`t need it (the tuner)."

According to ON4UN`s Fig 9-65 on page 9-48 of "Low-Band DXing", you may expect a drivepoint impedance of about 22 ohms.

Best regards, Richard Harrison, KB5WZI

497. Re: Best noise canceller : MFJ or Timewave ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 21:23:23 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3da351b5_3@news1.prserv.net>
Source record: 133336

Thierry:
I think MFJ bought Timewave last year, or at least some of their products.
Could it be the same product?

--
Crazy George
Remove NO and SPAM from return address
Thierry Lombry <lombryt@hotmail.com> wrote in message
news:3da32960_2@news.vo.lu...
> Hi,
>
> I would like to buy a noise canceler for a friend as a gift to help in
> suppressing some directional nosies. I use several time the MFJ-1026 but I
> don't know the Timewave ANC-4 (ex-JPS) that looks more modern . Both
devices
> works exactely the same way (cancelling noises in phase opposition using a
> 2d antenna) and prices are nearly similar ($180-210). Only problem there
is
> maybe no dealer for Timewave in Europe, so i suspect their proeuct to be
> about 25% more expensive.
>
> Has someone already made a test of both devices and find one better than
the
> other to remove RFI (QRM) ?
>
> NB. As I don't know the Timewave yet I'am of course more attracted by it,
> but is a good idea.
>
> Thanks for comments
>
> Thierry
> http://www.astrosurf.com/lombry/menu-qsl.htm
>
>
>

498. Re: wanted: cushcraft 5el 6meter bean & rotator

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 22:04:10 UTC
From: "Mitch, W4OA" <w4oa@arrl.net>
Message-ID: <uq6liqosrq57b0@corp.supernews.com>
Source record: 133337
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.space,rec.radio.swap

```
if the price is right, i would be interested in 2 (ants, 1 rotor)

mitch w4oa

"Henrik" <henrik> wrote in message
news:3da3357d$0$23933$edfadb0f@dspool01.news.tele.dk...
>
> "Mitch, W4OA" <w4oa@arrl.net> wrote in message
> news:uq68mdm4m1spec@corp.supernews.com...
> > must be in good condx...
> > let me know what you have...
> >
> > thanks
> > mitch, w4oa
> > NOSPAMw4oa@vibroplex.com
> >
> do you need one or two?
>
>
>
```

499. Cushcraft MA5B Vs. TGM MQ-2 Which Is better?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 22:08:38 UTC
From: rcuffee@hotmail.com
Message-ID: <df27559b.0210081408.113a7588@posting.google.com>
Source record: 133338

I am thinking about installing a small beam; however, I can't decide between the MA5B beam and the MQ-2 quad. Since I have a HOA, I will only be able to install the antenna at 25 feet. Which antenna has the better performance? By the way, the HexBeam is too large, so I am not considering it.

Thanks

500. Re: Portable Magloop from 80-6m (also working on 2m)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 22:11:07 UTC
From: richardharrison@webtv.net
Message-ID: <7021-3DA357FB-280@storefull-2317.public.lawson.webtv.net>
Source record: 133339

Art Unwin, KB9MZ wrote:
"---my loop is used in combination with another radiator (a dipole)
where it is tuned to resonate the combination."

Ed Laport in "Radio Antenna Engineering" on page 105 wrote:
"The quarter-wave shunt-fed radiator is the unbalanced analogy to the
delta feed so commonly used for horizontal dipoles at high frequencies.
In the latter system, the shunt feed is balanced. In both cases, the
transforming action of the shunt feed is relatively small, and the
reactance itroduced by the feed wire is not excessive, giving input
impedance of relative high power factor. Furthermore, the feed loop is
not sufficiently large to cause excessive radiation, though there is
some.---In broadcast applicatiobs, radiation from the feed loop causes
the vertical radiation pattern for the single radiator to be distorted
and eliminate the cone of silence directly above the radiator."

In a dipole, the nulls at the ends of the dipole might similarly be
eliminated by a loop imposed on its feedpoint. This could be desirable
in some applications.

Best regards, Richard Harrison, KB5WZI

501. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 22:49:23 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <anvndj$113$1@venus.btinternet.com>
Source record: 133340

"Richard Harrison" wrote
> According to ON4UN`s Fig 9-65 on page 9-48 of "Low-Band DXing", you may
> expect a drivepoint impedance of about 22 ohms.

There's an inverted-L constructed with the outer conductor (the braid) of a coaxial cable. There's the usual vertical and a horizontal sections. And then there's some ground radials.

What I would like to know, please, and so are a lot of other anxious readers, is where are the two feedline wires, presumably coax, or tuner, connected to the antenna.

Where does the inner conductor of the antenna coax come into it ?

Is it left floating, not connected to anything ?

Very few people are mind-readers. < big grin >

Regards, Reg, G4FGQ

502. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 22:57:34 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <anvnsu$39h$1@paris.btinternet.com>
Source record: 133341

Anywhere between 24 and 10 gauge enamelled solid copper will be OK.
Impossible to detect any difference in performance between them no matter
how accurate your S-meter may be calibrated.

Reg, G4FGQ

503. Re: Ideas? Trying to Extend Power From Battery Into Vehicle's Interior

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-08 23:49:16 UTC
From: "Ron P." <rpackerii@neo.rr.com>
Message-ID: <0aKo9.56545$Cz.6935832@twister.neo.rr.com>
Source record: 133342

John, that is what I recommended, 6 gauge.

Ron - kc8ulu
"John Franklin" <jpfrank@peoplepc.com> wrote in message
news:uq4hnqro6q9u93@corp.supernews.com...
> I have no interest in "Cold cranking AMPS" I am talking about sheer AMP
> Hours here. For that kind of current without much voltage drop you would
> need something on the order of 6 ought wire to deliver that kind of
current.
> You go ahead and try pulling 1600 AMPS from your two batteries, I bet in
> very short order you buckle the plates in all the cells. Car batteries are
> NOT designed for continuous high current draw, only short bursts such as
> starting. That's what DEEP cycle batteries are for.............SUSTAINED
> draw of current.
>
> WB7FFI out..............
>
>

504. 10/11-meter Yagi Question?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 00:04:57 UTC
From: Bert Craig <wa2si@arrl.netNOSPAM>
Message-ID: <SrKo9.45782$GF5.2662154@news4.srv.hcvlny.cv.net>
Source record: 133344

Hi everybody,

I have a 3 el. Yagi (Hy-Gain) that I want to use for 10-meters as well as CB. I currently run a 40-meter dipole through a tuner and it works really well for 10 through 40, including CB. (End-fires like a flame-thrower.)

My question is...is it better to tune the Yagi to be resonant on 28.444 MHz and use the tuner for 27.405 MHz, or the other way around? I still chat with my father on the CB ch. 40 USB and while adequate, he's still approx. 60 mi. away. I notice that tuning for 27.405 MHz puts a little more aluminum in the air. (Albeit just a few inches worth.) I just wasn't sure if it made any difference. Thanks in advance.

--
73 de Bert
WA2SI

505. Re: TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 00:05:02 UTC
From: k9sqg@aol.com
Message-ID: <20021008200502.14519.00000170@mb-mg.aol.com>
Source record: 133343

Richard,

I've had antennas in trees for a good portion of my ham career. I operate mainly 40 and 80 meters. I've been perfectly happy with the performance although I prefer stateside QSOs over DX (can't seem to get them to QSL, hi). I'd say go ahead and give it a try.

73s,

Evan

506. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 00:43:25 UTC
From: Radioguy <nospam@nospam.com>
Message-ID: <anvud2$9kg$1@slb5.atl.mindspring.net>
Source record: 133345

Well, I am not an expert on RF theory and design! But reading through the papers on PolyPhaser's web site regarding ground systems and studying ground systems in general I've learned that standard practice is to use solid conductor for the ground run. They claim that stranded conductor has a higher impedance at RF than a solid conductor. I suspect they may be considering worst case when the stranded conductor oxidizes and the strands become electically distinct compounded with the lay (twist) of the cable strands. My ground system uses a short length of 1.5" wide copper strip.

Furthermore, isn't there a cite from the electic code that wire antenna be constructed of solid conductor... or some such wording to the effect?

R.

Henrik <henrik> wrote in message
news:3da1a565$0$84316$edfadb0f@dspool01.news.tele.dk...
> For electrical performance of wire antennas, should one prefer multi
> stranded (and isolated) wire, with a higher surface area , hence lower
> resistance for the high frequency current, or massive enamelled copper
wire,
> if the cross sections are equal?
>
> And is the answer the same if focus is mechanical strength and
> ageing/corrosion?
>
> Rgds
> Henrik
>
>
>

507. Re: TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 01:10:43 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <3DA38212.7B9D196E@ziplog.com>
Source record: 133346

RMO ..

RMO wrote:

> I have a 1 acre lot that is mostly tall trees and I wanted to know how
> bad it is going to be if I get back into radio. I do have about a 40 x 30
> area out back that is clear but on the border of this area is the house and
> tall trees about 40 feet high. Probably start with a dipole, eventually an
> hf vertical but there again the house is embedded in the trees so its tough
> to find a good spot to mount a pole that is not next to tree branches.
>
> Let me know what you think about a dipole in the clear but bordered area,
> will it be ok or will it really dampen my operating?
>
> Thanks!
> Richard
> KD4UWV

I have some real insight that others may not have to pass along to you. I operate almost exclusively 40 and 80 meter CW using 4 square vertical arrays for each band. These are all right in the tree arena as my entire property is covered with all kinds of trees. No escape and I'm not at all interested in cutting down any of these trees.

The trees are taller than the 40 meter array and many of them are taller than the 80 meter array but at a bit of distance from it.

The 80 meter array does not change tuning characteristics when the seasons change.

On the other hand, when the seasons change and the sap rises in the Oaks, or winter hits and the leaves come off and the sap declines, I guarantee you that the tuning of the entire 40 meter array changes! You can actually see the SWR pattern from direction to direction change in it vary from one part of the year to the other. The effect is minimal on 40, but it is there. The effect on performance isn't noticeable on 40 as far as I can tell, for the forward throw. Gain is relatively easy to get in these arrays relative to tuning and adjustment work, per my experience.

On the other hand, you'll see more noticeable distortion in the Front to Back ratio as the seasons change.

I can tell you that a 20 meter VERTICAL array will have even more sensitivity to tree problems, and so on up the frequency scale, in VERTICAL mode. Because the 'element-like' branches of most trees are not oriented in the same plane and in the same perspective as most horizontal arrays, you'll see less of this for horizontal antennas. For 20-15-10 meters, do whatever you can to clear

the antenna up above and away from the tree game. It's just the shorter and more interfering elemental characteristics of the branches which are hittint you, as opposed to the definite vertical mode model for the trunks!

At the extreme end of the scale is issues like the de-sensitizing of pagers and cell phones in the middle of huge collections of pine needles on pine trees. Here, if and because the needles are right there in the proper elelment length as the object frequencies of these and similar devices, you'll often see devices like these go way down in performance when pine trees are involved. Much more absorption of the needed energy in them.

Now, was this more like what you want to know from a practical standpoint?

--

--> Sleep well; OS2's still awake! ;)

Mike Luther

508. Re: Helical Antenna Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 01:12:58 UTC
From: Sparks W4EAS <sparksw4eas@mindspring.com>
Message-ID: <3DA3829A.364E@mindspring.com>
Source record: 133347

Hummmmmm.....Looks like He said "Wealth of Information" NOT "Wealth of Experiance"! Regards, Sparks W4EAS

509. Re: TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 01:30:25 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ao00rh$l8o$0@208.206.142.109>
Source record: 133348

Mike Luther wrote:
>
> RMO ..
>
> RMO wrote:
>
> > I have a 1 acre lot that is mostly tall trees and I wanted to know how
> > bad it is going to be if I get back into radio. I do have about a 40 x 30
> > area out back that is clear but on the border of this area is the house and
> > tall trees about 40 feet high. Probably start with a dipole, eventually an
> > hf vertical but there again the house is embedded in the trees so its tough
> > to find a good spot to mount a pole that is not next to tree branches.
> >
> > Let me know what you think about a dipole in the clear but bordered area,
> > will it be ok or will it really dampen my operating?
> >
> > Thanks!
> > Richard
> > KD4UWV
>
> I have some real insight that others may not have to pass along to you. I
> operate almost exclusively 40 and 80 meter CW using 4 square vertical arrays
> for each band. These are all right in the tree arena as my entire property is
> covered with all kinds of trees. No escape and I'm not at all interested in
> cutting down any of these trees.
>
> The trees are taller than the 40 meter array and many of them are taller than
> the 80 meter array but at a bit of distance from it.
>
> The 80 meter array does not change tuning characteristics when the seasons
> change.
>
> On the other hand, when the seasons change and the sap rises in the Oaks, or
> winter hits and the leaves come off and the sap declines, I guarantee you that
> the tuning of the entire 40 meter array changes! You can actually see the SWR
> pattern from direction to direction change in it vary from one part of the year
> to the other. The effect is minimal on 40, but it is there. The effect on
> performance isn't noticeable on 40 as far as I can tell, for the forward
> throw. Gain is relatively easy to get in these arrays relative to tuning and
> adjustment work, per my experience.
>
> On the other hand, you'll see more noticeable distortion in the Front to Back
> ratio as the seasons change.
>

> I can tell you that a 20 meter VERTICAL array will have even more sensitivity
> to tree problems, and so on up the frequency scale, in VERTICAL mode. Because
> the 'element-like' branches of most trees are not oriented in the same plane
> and in the same perspective as most horizontal arrays, you'll see less of this
> for horizontal antennas. For 20-15-10 meters, do whatever you can to clear
> the antenna up above and away from the tree game. It's just the shorter and
> more interfering elemental characteristics of the branches which are hittint
> you, as opposed to the definite vertical mode model for the trunks!
>
> At the extreme end of the scale is issues like the de-sensitizing of pagers and
> cell phones in the middle of huge collections of pine needles on pine trees.
> Here, if and because the needles are right there in the proper elelment length
> as the object frequencies of these and similar devices, you'll often see
> devices like these go way down in performance when pine trees are involved.
> Much more absorption of the needed energy in them.
>
> Now, was this more like what you want to know from a practical standpoint?
>

Mike I don't know about him or anyone else, but I was sure interested!
That's the sort of good, practical, useful information I like to read.

73, Dick

510. Re: Best noise canceller : MFJ or Timewave ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 01:32:05 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210081732.75696d14@posting.google.com>
Source record: 133349

Hi,

I have found interesting reviews of both devices on eham of course :
http://www.eham.net/reviews/detail/1138

Hear the effect of the Timewave on QRM (check right to the 5th
picture) : http://www.owdjim.gen.nz/chris/radio/shack.html

MFJ and Timewave :
(not a true comparison but directions)
http://www.hard-core-dx.com/nordicdx/antenna/special/
http://members.aol.com/MarkWA1ION/phased_arrays.htm

About Timewave on 50 Mhz :
http://www.qsl.net/i0jx/anc-4.pdf

Advice to modify the MFJ:
http://www.amrad.org/pipermail/tacos/1998/000283.html
or http://www.angelfire.com/mb/amandx/mfj1026.html

Original reviews in QST:
JPS Communications; ANC-4 Antenna Noise Canceller; Feb 1996
MFJ; MFJ-1026 Deluxe Noise Canceling Signal Enhancer; Apr 1998

Even if users seems to say the Timewave works fine, some consider it
is too touchy, most consider that the MFJ give better nulling of QRM.
This last comes also with an attenuator function not available on
Timewave model.

At last, the price, -25/30% cheaper for the MFJ.

Thierry

511. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 01:38:56 UTC
From: Brent <brent316@yahoo.com>
Message-ID: <QMLo9.51357$aU3.2812960@typhoon.kc.rr.com>
Source record: 133350

> Where does the inner conductor of the antenna coax come into it ?>

You short the center conductor to the shield of the coax on both ends.

> Is it left floating, not connected to anything ?
Nope.

Hope that helps.

Brent

> Very few people are mind-readers. < big grin >
> ---
> Regards, Reg, G4FGQ

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:anvndj$113$1@venus.btinternet.com...
>
> "Richard Harrison" wrote
> > According to ON4UN`s Fig 9-65 on page 9-48 of "Low-Band DXing", you may
> > expect a drivepoint impedance of about 22 ohms.
>
> ---
>
> There's an inverted-L constructed with the outer conductor (the braid) of
a
> coaxial cable. There's the usual vertical and a horizontal sections. And
> then there's some ground radials.
>
> What I would like to know, please, and so are a lot of other anxious
> readers, is where are the two feedline wires, presumably coax, or tuner,
> connected to the antenna.
>
> Where does the inner conductor of the antenna coax come into it ?
>
> Is it left floating, not connected to anything ?
>
> Very few people are mind-readers. < big grin >
> ---
> Regards, Reg, G4FGQ
>
>
>

512. Re: Threat to worldwide use of 70cm band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 02:16:54 UTC
From: Dean Arthur <dearthur@silverstar.com>
Message-ID: <3DA39192.692E@silverstar.com>
Source record: 133351
Cross-posted to: alt.ham-radio.hf,alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

For keeping ity amateur radio? Well we could tell them we are setting
up 10,000 beacons for propagation measurements worldwide.

513. Re: Helical Antenna Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 02:44:38 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA39816.88F463F0@ieee.org>
Source record: 133353

Sparks W4EAS wrote:
> Hummmmmm.....Looks like He said "Wealth of Information" NOT "Wealth of
> Experiance"! Regards, Sparks W4EAS

Ahhhhh, but I said "wealth of experience" first. I never said "wealth
of information".
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

514. Re: RFI problem with TOUCH SWITCH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 03:01:52 UTC
From: tmgroatatpeakpeakdotcom
Message-ID: <3da398dc.5007668@news.peakpeak.com>
Source record: 133354

Don't bet on it. With the antenna on the barn roof more than 60 feet
away, I could consistently key the touch lamp with 100W of RF. Ferrite
chokes made no noticeable difference in this case. The circuit's RF
impedance seems to be too high for that approach. The final solution
was to open up the lamp and remove the touch switch module.

--KR0U

>
>Sure- move your antennas away from the house far enough that they don't
>induce RF onto the house wiring. If you can't do that, looks like you'll
>have to crank down the wick....maybe a long way down, to QRP.
>
>Dick

515. Re: 10/11-meter Yagi Question?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 03:06:29 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA39D35.83893DC3@cwis.net>
Source record: 133355

Bert,
I would tune the antenna for the band I used most,
or for the one that was most important to me.
'Doc

516. Re: M2 10M4DX Dimensions?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 03:14:50 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DA39F2A.7B2708E0@netscape.net>
Source record: 133356

I think NEC-Win Plus+ (which i am using) has "Stepped diameter correction".
Wasn't sure how good that was even...

Scott.

Roy Lewallen wrote:

> An NEC-2 analysis of a beam with tapered elements will almost certainly
> show a pretty badly inaccurate front/back ratio. If you want good
> results, you'll have to calculate and enter the constant-diameter
> equivalent. A method for doing this is given in Leeson, _Physical Design
> of Yagi Antennas_. NEC-2 based programs like EZNEC use this method.
>
> Roy Lewallen, W7EL
>
> Scott wrote:
> > Does anybody have the dimensions for the M2 10M4DX handy? I wanted see
> > what NEC2 (I know it has tapered elements) has to say about it. I could
> > use the dimensions, or I'll take a file if somebody has entered it
> > already.
> > email: scott2rp789@netscape.net
> >
> > Thanks!
> >
> > Scott.
> >

517. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 03:16:17 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA39F81.C4DC7EB9@cwis.net>
Source record: 133357

Brent,
Why are you using coax for the antenna? Is it
because you have more of it than you know what to
do with, or because there's supposed to be some
kind of advantage to it?
'Doc

518. Re: Portable Magloop from 80-6m (also working on 2m)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 03:32:40 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210081932.5c6b7133@posting.google.com>
Source record: 133358

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<7021-3DA357FB-280@storefull-2317.public.lawson.webtv.net>...
> Art Unwin, KB9MZ wrote:
> "---my loop is used in combination with another radiator (a dipole)
> where it is tuned to resonate the combination."
>
> Ed Laport in "Radio Antenna Engineering" on page 105 wrote:
> "The quarter-wave shunt-fed radiator is the unbalanced analogy to the
> delta feed so commonly used for horizontal dipoles at high frequencies.
> In the latter system, the shunt feed is balanced. In both cases, the
> transforming action of the shunt feed is relatively small, and the
> reactance itroduced by the feed wire is not excessive, giving input
> impedance of relative high power factor. Furthermore, the feed loop is
> not sufficiently large to cause excessive radiation, though there is
> some.---In broadcast applicatiobs, radiation from the feed loop causes
> the vertical radiation pattern for the single radiator to be distorted
> and eliminate the cone of silence directly above the radiator."
>
> In a dipole, the nulls at the ends of the dipole might similarly be
> eliminated by a loop imposed on its feedpoint. This could be desirable
> in some applications.
>
> Best regards, Richard Harrison, KB5WZI

Richard,it was not my intent to re introduce that antenna as I am now
aware
what agravation the subject creates. You have done quite a lot of work
with
your post above. Unfortunately I am not smart enough to comprehend
what it all means, good or bad or what ever with respect to me or that
old ubject.
Hopefully I will able to lay my hands on that book sometime and read
it in its entirety to get a better understanding of the statement
above.
Appreciate you taking the time to look up and post all that tho
Richard.
Art

519. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 03:39:19 UTC
From: richardharrison@webtv.net
Message-ID: <6334-3DA3A4E7-851@storefull-2313.public.lawson.webtv.net>
Source record: 133359

Radioguy wrote:
"---isn`t there a cite from the electric code---?

Yes.

"N.E.C. requirements:
2591. Material. The material for the grounding conductors shall be as follows:
a. For System or Common Grounding Conductor. The grounding conductor of a wiring system shall be of copper or other corrosion resistant material. The conductor may be solid or stranded, insulated or bare.
----."

Since stranded wire is OK for grounding, it`s OK for any wiring if its physical properties are suitable. As I seem to remember, the power company here insists that exposed aluminum grounding conductors be insulated for protection against accidents and the elements but bare copper is OK with them. I checked the meter service ground on my house. It`s stranded copper of a very large size, >>#6 AWG. I don`t have a handy wire gauge.

Best regards, Richard Harrison, KB5WZI

520. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 04:37:39 UTC
From: richardharrison@webtv.net
Message-ID: <7020-3DA3B293-804@storefull-2317.public.lawson.webtv.net>
Source record: 133360

Steve, N4LQ wrote:
"The author claimed 20+ db gain for local stations---."

With reflecting elements formed into a parabolic reflector?

A folded dipole optimally placed above a very good flat reflector only gives about 5 dbd gain or about 7 dbi gain according to Arnold B. Bailey in "TV and Other Receiving Antennas" on page 523.

The reason is a perfect flat reflection can almost double the voltage of a signal traveling away perpendicular to the reflector and emanating from the dipole and its reflector. Doubling the voltage quadruples the effective radiated power in the best direction so there is almost a 6 db gain. Call it 5 dbd because it`s not quite perfect.

Best regards, Richard Harrison, KB5WZI

521. Re: Best noise canceller : MFJ or Timewave ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 04:53:50 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210082053.c6ff3a8@posting.google.com>
Source record: 133361

"Crazy George" <munschNO@attglobal.net.SPAM> wrote in message
news:<3da351b5_3@news1.prserv.net>...
> Thierry:
> I think MFJ bought Timewave last year, or at least some of their products.
> Could it be the same product?
>
> --

I don't think so.
The MFJ has a built-in attenuator not available on the Timewave.
And more I read reviews about both devices more I suspect the MFJ to
work better and to be "easier" to use (not as touchy as the TW.).

This is maybe a good thing as it is cheaper and MFJ has dealers
worldwide.
My first selection was thus probably the good one.

But I should appreciate to read more comments about OM who compared in
the field both devices.

Thierry

522. Re: Portable Magloop from 80-6m (also working on 2m)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 05:25:51 UTC
From: richardharrison@webtv.net
Message-ID: <7021-3DA3BDDF-308@storefull-2317.public.lawson.webtv.net>
Source record: 133362

Art Unwin, KB9MZ wrote:
"Hopefully, I will be able to get my hands on that book---."

Art is plenty smart and resourceful too. All Ed Laport was implying, I think, is what I had posted in the earlier thread regarding Art`s clever matching arrangement. The loop is sensitive in its plane and has nulls broadside. When attached to the dipole as Art has done, the loop`s nulls are in the principal lobe direction of the dipole and don`t help. On the other hand, the loop`s lobes are directed at the ends of the dipole where its nulls normally occur. If it is advantageous to fill in the antenna`s nulls (maybe you would like to have a mostly non-directional antenna) the loop placed parallel to the straight radiator may be just what you are looking for.

The loop might be of some assistance to the dipole were it horizontal instead of vertical. It would still fill the nulls at the ends of the dipole, but some of its radiation would be fore and aft instead of up and down where it is of little use.

Best regards, Richard Harrison, KB5WZI

523. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 07:17:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uq7m0gh4lgde1a@corp.supernews.com>
Source record: 133363

It's actually a little more complicated than that. If you begin with a dipole a quarter wavelength above a perfect, infinite reflecting plane, you have a reflection that completely adds to the outgoing signal from the dipole. But the mutual coupling between the dipole and the current induced on the ground plane (which is the same as between the dipole and a fictitious "image") raises the dipole's radiation resistance. Because of the raised resistance, a given amount of power produces a smaller field from the dipole itself than it did when the dipole was in free space. This is why the gain isn't quite 6 dB greater than for the same dipole in free space, even when everything is perfect.

As you move the dipole closer to the ground plane, though, the radiation resistance drops, which increases the dipole current and resulting field. But now, the phase of the reflection isn't quite right to fully reinforce the field outward from the dipole. Nevertheless, because of the increased dipole current, the overall gain continues to increase as the dipole is moved closer and closer to the reflecting plane. You might recognize this as being exactly how a W8JK antenna works and, in fact, the pattern, gain, and element feedpoint impedance will be the same as for a W8JK. The gain hits a maximum of just under 7 dB relative to the free-space dipole when the dipole is very close to the ground plane, despite the nearly complete cancellation taking place at that spacing between the outgoing dipole radiation and the reflected radiation. However, you'll never get this in practice. As the dipole gets very close to ground plane, the radiation resistance drops and the current increases dramatically. So even a very small amount of loss in a real antenna (or reflector) can more than cancel out the gain you might have achieved.

Between real losses and a finite ground plane, in a real you'll see gains more like what Richard quotes Bailey as giving.

If the dipole is much more than a quarter wavelength above the reflector, you can get a gain of around 6 dB, but with lobes pointing away from the center.

You can easily observe all these effects with the free demo version of EZNEC.

Roy Lewallen, W7EL

Richard Harrison wrote:
> Steve, N4LQ wrote:
> "The author claimed 20+ db gain for local stations---."
>
> With reflecting elements formed into a parabolic reflector?

>
> A folded dipole optimally placed above a very good flat reflector only
> gives about 5 dbd gain or about 7 dbi gain according to Arnold B. Bailey
> in "TV and Other Receiving Antennas" on page 523.
>
> The reason is a perfect flat reflection can almost double the voltage of
> a signal traveling away perpendicular to the reflector and emanating
> from the dipole and its reflector. Doubling the voltage quadruples the
> effective radiated power in the best direction so there is almost a 6 db
> gain. Call it 5 dbd because it`s not quite perfect.
>
> Best regards, Richard Harrison, KB5WZI
>

524. Re: Helical Antenna Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 09:39:17 UTC
From: Dean Elwood <dean@legallyspeaking.co.uk>
Message-ID: <ao0tg5clo1@venus.btinternet.com>
Source record: 133364

Yeah, and I'm really looking for the wealth of information, but thanks anyway.

I'll try the good old fashioned library!!

Dean

"CAM" <Cecil.A.Moore@ieee.org> wrote in message news:3DA39816.88F463F0@ieee.org...
> Sparks W4EAS wrote:
> > Hummmmmm.....Looks like He said "Wealth of Information" NOT "Wealth of
> > Experiance"! Regards, Sparks W4EAS
>
> Ahhhhh, but I said "wealth of experience" first. I never said "wealth
> of information".
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 80,000 Newsgroups - 16 Different Servers! =-----

525. Re: Best noise canceller : MFJ or Timewave ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 10:41:12 UTC
From: k1bqt@aol.com
Message-ID: <20021009064112.15783.00000263@mb-dd.aol.com>
Source record: 133365

I understand the early revisions of the MFJ unit may have had some problems, but later ones are quite good. I know they invested quite a lot of engineering time to ensure that it would work well. As far as I know, there's no connection between MFJ and Timewave. Didn't most of these units spin out of Doug DeMaw's QST article?

Rick K1BQT

526. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 11:47:11 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA4173F.7B25CC19@cwis.net>
Source record: 133366

Steve,
You know what they say about things that are too good
to be true. And you still don't get something for nothing.
'Doc

527. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 12:48:39 UTC
From: richardharrison@webtv.net
Message-ID: <15147-3DA425A7-7@storefull-2314.public.lawson.webtv.net>
Source record: 133367

Roy, W7EL wrote:
"You can easily observe these effects with the free demo version of EZNEC."

That`s like a broken drum. You can`t beat it.

Never the less, when your gain is almost 6 db, your volts per meter have almost doubled and your power has almost quadrupled. That`s simple mathematics which trumps the other sciences.

The antenna with the reflector is the only source of the energy. Interaction in the source causes the energy concentrtion. There is imperfection because perfection is unattainable. I tried to be succinct but not too succinct.

I did not give Bailey`s spacing between the folded dipole and its reflector. It was 0.127 wavelength. The dipole was parallel to its "extensive" reflecting surface.

Bailey says his dipole`s feed impedance drops from 300 ohms to 150 ohms with the reflector in place.

I assiumed that Bailey had picked the spacing for maximum gain. Maybe he could have done better. I still think that 20 db is too much to expect or believe.

Best regards, Richard Harrison, KB5WZI

528. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 13:25:31 UTC
From: Brent <brent316@yahoo.com>
Message-ID: <f7Wo9.51376$aU3.2832580@typhoon.kc.rr.com>
Source record: 133368

Well I was told it helps a little with the bandwidth and should be stronger compared to standard copper wire. Also I happen to have about 200 hundred feet of the stuff.

Brent

"'Doc" <w5lz@cwis.net> wrote in message news:3DA39F81.C4DC7EB9@cwis.net...
> Brent,
> Why are you using coax for the antenna? Is it
> because you have more of it than you know what to
> do with, or because there's supposed to be some
> kind of advantage to it?
> 'Doc

529. Re: 10/11-meter Yagi Question?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 13:36:05 UTC
From: Vito <vito@crosslink.net>
Message-ID: <3DA430C5.738390DA@crosslink.net>
Source record: 133269

Bert Craig wrote:
>
> Hi everybody,
>
> I have a 3 el. Yagi (Hy-Gain) that I want to use for 10-meters as well as
> CB.

I dunno ... what about tuning the director for 10m, the reflector for 11
and the active element in between??

K3DWW

530. Re: TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 13:48:10 UTC
From: richardharrison@webtv.net
Message-ID: <27190-3DA4339A-25@storefull-2311.public.lawson.webtv.net>
Source record: 133270

Mike Luther wrote:
"No escape and I`m not at all interested in cutting down any of these trees."

I agree you should not let trees keep you off the air. Trees are just a challenge.

Almost 50 years ago I worked at the world`s largest shortwave broadcasting plant, it was thought at the time.The plant had recently been sited on a wooded plain of about 500 acres. The trees were clear cut and the stumps pulled before the first antenna, a rhombic, was erected to be driven by a transmitter in a group of trailers. This first 10 KW transmitter was soon joined by many 50 KW and 100 KW transmitters in permanent settings.

Point is, the trees would have been detrimental to the shortwaves so they were cut.

Best regards, Richard Harrison, KB5WZI

531. Re: TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 14:36:25 UTC
From: Murray Neece <radioranch@cableone.net>
Message-ID: <3DA43EE9.58431E1C@cableone.net>
Source record: 133271
Body handling: Binary attachment payload not displayed: radioranch.vcf

Why not put up a big loop IN the trees...mines that way and works great. Get all the open space you can but if you can hang 120 meters of wire and have tuner...it will be awesome!! 73 Murray

RMO wrote:

> I have a 1 acre lot that is mostly tall trees and I wanted to know how
> bad it is going to be if I get back into radio. I do have about a 40 x 30
> area out back that is clear but on the border of this area is the house and
> tall trees about 40 feet high. Probably start with a dipole, eventually an
> hf vertical but there again the house is embedded in the trees so its tough
> to find a good spot to mount a pole that is not next to tree branches.
>
> Let me know what you think about a dipole in the clear but bordered area,
> will it be ok or will it really dampen my operating?
>
> Thanks!
> Richard
> KD4UWV

[One or more binary attachments are retained only in the source text.]

532. Re: Cushcraft MA5B Vs. TGM MQ-2 Which Is better?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 14:42:41 UTC
From: "Mark J. Dulcey" <mark@buttery.org>
Message-ID: <pan.2002.10.09.14.42.41.606034@buttery.org>
Source record: 133272

On Tue, 08 Oct 2002 15:08:38 +0000, RC wrote:

> I am thinking about installing a small beam; however, I can't decide
> between the MA5B beam and the MQ-2 quad. Since I have a HOA, I will
> only be able to install the antenna at 25 feet. Which antenna has the
> better performance? By the way, the HexBeam is too large, so I am not
> considering it.

It's hard to say which is "better". Both antennas seem to be favorably reviewed on eHam; you might want to have a look over there to see what people have to say. The MQ-2 is a bit smaller and lighter (4.5' boom, 12.1' elements for the MQ-2; 7.3' boom and 17.1' elements for the MA5B). Either will be a big step up in performance from a dipole.

The MQ-2 claims to offer some gain on 17 and 12 meters; the MA5B is simply a dipole on those bands. The MQ-2 also claims to work on 6 meters, but the SWR chart shows that you'll need a tuner on that band - and most HF tuners won't work well on 6. The MA5B claims a higher F/B ratio on 20M. The manufacturer's claimed gain figures for the MQ-2 are higher than those for the MA5B, but such numbers typically don't mean much (though the claims for the MA5B actually seem, for a change, to be realistic). I would expect the MA5B to have slightly more gain because of its larger size; neither will match the performance of a full-size antenna.

The sort of people who put up these small beams aren't likely to be doing a lot of antenna experimentation; they usually suffer from space and/or budget limitations. So you're not likely to find many people who have used both antennas, which will limit the direct comparisons.

Based on the reviews, both are much better than the Mosley Mini-33, the only other currently available direct competitor in the "tiny beam" category that I know of.

533. Re: 10/11-meter Yagi Question?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 15:03:45 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <4uKcnQvzUrGm2DmgXTWc2Q@News.GigaNews.Com>
Source record: 133273

Bert,

Many 10 m antennas claim they cover the whole 10 m band, which is 1.7 MHz wide. So, if you make your antenna resonance 27.4, your coverage will be from 26.55 to 28.25 - not very useful. If you make the antenna resonant at 28.25, your coverage will be from 27.4 to 29.1, which will cover everything except the top end of 10m without a tuner. Assuming this antenna is horizontally polarized, your father will have to use a horizontally polarized antenna on his CB (like a dipole). If you set up your beam for vertical polarization, it will work for 10m DX, but lousy for 10 m local contacts. If you are a 10 m FM fan, you are probably outta luck.

Tam/WB2TT
"Bert Craig" <wa2si@arrl.netNOSPAM> wrote in message
news:SrKo9.45782$GF5.2662154@news4.srv.hcvlny.cv.net...
> Hi everybody,
>
> I have a 3 el. Yagi (Hy-Gain) that I want to use for 10-meters as well as
> CB. I currently run a 40-meter dipole through a tuner and it works really
> well for 10 through 40, including CB. (End-fires like a flame-thrower.)
>
> My question is...is it better to tune the Yagi to be resonant on 28.444
MHz
> and use the tuner for 27.405 MHz, or the other way around? I still chat
with
> my father on the CB ch. 40 USB and while adequate, he's still approx. 60
mi.
> away. I notice that tuning for 27.405 MHz puts a little more aluminum in
the
> air. (Albeit just a few inches worth.) I just wasn't sure if it made any
> difference. Thanks in advance.
>
> --
> 73 de Bert
> WA2SI
>
>

534. ROHN towers stock is trading at .07 cents per share!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 16:27:17 UTC
From: no.spam.here@hotmail.com
Message-ID: <3da45865.5021069@127.0.0.1>
Source record: 133274

As of 12:25 E.D.T. on 10/09/2-002, ROHN towers stock is trading at .07 cents per share!

http://finance.yahoo.com/q?s=rohn&d=c&k=c1&t=1y&a=v&p=s&l=on&z=m&q=l

535. Re: Cushcraft MA5B Vs. TGM MQ-2 Which Is better?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 17:09:20 UTC
From: StarGazer <pti@capnet.com>
Message-ID: <3DA462C0.51B6786A@capnet.com>
Source record: 133276

The HexBeam is only 11 ft in diameter. And it is made mostly
made out of wire which is much more invisible than metal
tubing. And it is more broadbanded than the other antennas.

RC wrote:

> I am thinking about installing a small beam; however, I can't decide
> between the MA5B beam and the MQ-2 quad. Since I have a HOA, I will
> only be able to install the antenna at 25 feet. Which antenna has the
> better performance? By the way, the HexBeam is too large, so I am not
> considering it.
>
> Thanks

536. Does HF typically interfere with satellite dishes?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 17:11:26 UTC
From: StarGazer <pti@capnet.com>
Message-ID: <3DA4633E.BA7D0212@capnet.com>
Source record: 133277

asfd

537. Re: ROHN towers stock is trading at .07 cents per share!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 17:29:32 UTC
From: richardharrison@webtv.net
Message-ID: <1885-3DA4677C-33@storefull-2312.public.lawson.webtv.net>
Source record: 133278

Arlen Hall wrote:
"---Rohn Towers stock is trading at .07 cents per share!"

I hope that`s .07 dollar per share, at least!

Arlen may know the price of Rohn`s shares, but does he know their future value?

Best regards, Richard Harrison, KB5WZI

538. Re: Portable Magloop from 80-6m (also working on 2m)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 17:32:51 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210090932.3ed494f8@posting.google.com>
Source record: 133275

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<7021-3DA3BDDF-308@storefull-2317.public.lawson.webtv.net>...
> Art Unwin, KB9MZ wrote:
> "Hopefully, I will be able to get my hands on that book---."
>
> Art is plenty smart and resourceful too. All Ed Laport was implying, I
> think, is what I had posted in the earlier thread regarding Art`s clever
> matching arrangement. The loop is sensitive in its plane and has nulls
snip
> dipole, but some of its radiation would be fore and aft instead of up
> and down where it is of little use.
>
> Best regards, Richard Harrison, KB5WZI

Thank you for your kind words but most would say that
you over estimate my abilities.
What I did find interesting was that the German inventor
was also invoking the 'dual loop' aproach as advocated
in the ARRL antenna book , to cover all the bands,a direction
I also have taken in the past as well as using only one
loop as an antenna for a particular range and then evolving
towards adding the transmission line to make the set up a
'antenna system'.
In the past I have used both variable inductance and variable
capacitors to 'stretch' the frequency range of a single loop which
appeared successful
Unfortunately at that time I was using step motors with unshielded
power lines so the noise level was too high to enjoy it.
Never did understand why the commercial builders did not follow
that approach but then they are a lot smarter than I.
Today I am duplicating that setup but using D.C. motors which
unfortunately are not pulsed but should allow me to have some
fun on the bands now winter is aproaching and I have to put my
experimenting aside (which is my first love)
Best regards
Art

539. Re: Where to get aluminium tubing???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 18:06:54 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210091006.1e16b555@posting.google.com>
Source record: 133279
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,uk.radio.amateur

"Steve G1XOW" <steve@wragge.fsworld.co.uk> wrote in message
news:<an9c75got1@newsg2.svr.pol.co.uk>...
> Try ASC Metails in Lincolnshire. Very good and next day delivery in
> Midlands.
>
> http://www.ascmetals.com/
>
> Cheers, Steve G1XOW
>
> "M3SEM" <ff@vv.vv> wrote in message
> news:%0Xk9.1165$hS4.8997@newsfep3-gui.server.ntli.net...
> > Wondering if anyone can point me in the direction of a supplier of
> aluminium
> > tubing in the UK, for some antenna projects??
> >
> > Thanks in advance :)
> >
> >

Gentlemen As a former Brit I still retain my love of experimenting
with
antennas and thus over the years have accumulated quite a pile of
aluminium tubing.This pile is being shipped off to the scrapyard by my
grandaughter because I have little use for it anymore.
The reason from moving away from aluminium is that I find telescopic
fishing poles to be much more available,less expensive, can be
extended to over
320 inches aside using aluminium in the boom area, Can use wire inside
or aluminium paper on the outside so the basic rod material used lasts
for ever because modification to length over experimental time does
not damage the pole itself.
P.S.
When an ice storm comes along the rod believes it has caught a fish,
it bends as all fishing rods do and the ice slides off !

Art KB9MZ....XG.

540. Re: 10/11-meter Yagi Question?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 18:10:57 UTC
From: richardharrison@webtv.net
Message-ID: <16455-3DA47131-57@storefull-2317.public.lawson.webtv.net>
Source record: 133282

Bert, WA2SI wrote:
"....is it better to tune the Yagi to be resonant on 28.444 MHz and use the tuner for 27.405 MHz, or the other way around?

Will Hy-Gain supply the bandwidth and other antenna characteristics? Can you determine the antenna characteristics for yourself?

A 3-element Yagi with 7%-8% bandwidth shouldn`t be too difficult if big enough rods are used. It takes 8%-10% bandwidth to cover TV Channel 2 at 54 Mhz-60 MHz.

Why not just give the Hy-Gain a try as-is?

If an antenna is a little too long, a capacitance in series is usually needed to tune it. I would be inclined on insufficient data to try retuning the antenna resonant on 27.405 MHz to a higher frequency using my tuner.

Best regards, Richard Harrison, KB5WZI

541. Re: Screwdriver Antenna analysis?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 18:12:54 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <B9_o9.64404$OM4.36342303@e3500-atl1.usenetserver.com>
Source record: 133281

Mark Keith <nm5k@wt.net> wrote in message
news:25eb70d7.0210080038.4be02acd@posting.google.com...
> Larry Johnson <larryj@teleport.com> wrote in message
news:<3DA09C76.24753FBA@teleport.com>...
> > Which model Screwdriver was he using? Looks like there are lots of
> > manufacturers out there, all claiming that their antenna is better than
> > everyone else's.
> > LJ
>
> They differ thats for sure. There is one brand in particular that is
> pathetic.
> The coil has so much loss, it's a wonder it works at all. And the
> worst part is , the guy seems to design them that way on purpose. He
> says they give a "good match", or something along those lines...The
> antenna a friend of mine bought from him was so low Q, I has trouble
> finding the noise peak when adjusting the coil. Really bad news..No
> decent mobile antenna can operate without impedance matching. If it
> does, look out for excess losses. On the other hand, many are decent
> antennas, and comparable to a bugcatcher. Just depends who, and how
> they build them. The better ones look kind of like adjustable
> bugcatchers. Big fat low loss coils. MK

I make one that is 3" dia, about comparable to Henry Allen's bugcatcher. I
have found that
that is about the best compromise in a mobile HF antenna. If you go much
larger, you'll spend
a lot of time re-tuning because the Q reaches such a point that any and
everything you encounter
as you drive will mess it up--or your auto-positioner will go nuts
"hunting".

What that guy you mentioned is doing (I think) is "transformer winding" his
coils--so closely winding
the coils that the resistance reaches a point where no feed point device is
needed. Of course, it is
a bad idea. That's the same way many hamsticks work so they need no
matching. I make all of
mine with #14 wire at 8 TPI which makes for a good coil form and spacing.
You DEFINITELY
have to match the Carolina Cyclones. That's where I run into trouble with
newbies. Sometimes
they will call and complain that they can't get their new antenna to work.
I then have to explain what that "other" coil in their package is for. They
don't have time to read the instructions, I guess.

73

Jerry
www.qsl.net/k4kwh

542. Re: ROHN towers stock is trading at .07 cents per share!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 18:14:14 UTC
From: Brent <brent316@yahoo.com>
Message-ID: <WI_o9.51385$aU3.2851359@typhoon.kc.rr.com>
Source record: 133280

Maybe I should ask for some money not to buy them. My last few stocks that I bought in the past 6 months pretty much took a nose dive.

Lucent
WorldCom
Bethlehem Stl Corp

I'm on a roll. Hmm maybe I should buy some Microsoft...

Brent

"Arlen Hall" <no.spam.here@hotmail.com> wrote in message news:3da45865.5021069@127.0.0.1...
>
>
>
> As of 12:25 E.D.T. on 10/09/2-002, ROHN towers stock is trading at .07
> cents per share!
>
>
> http://finance.yahoo.com/q?s=rohn&d=c&k=c1&t=1y&a=v&p=s&l=on&z=m&q=l
>
>

543. Re: ROHN towers stock is trading at .07 cents per share!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 19:23:58 UTC
From: Ken Finney <kenneth.c.finney@boeing.com>
Message-ID: <H3qB7v.629@news.boeing.com>
Source record: 133283

"Arlen Hall" <no.spam.here@hotmail.com> wrote in message
news:3da45865.5021069@127.0.0.1...
>
>
>
> As of 12:25 E.D.T. on 10/09/2-002, ROHN towers stock is trading at .07
> cents per share!
>
>
> http://finance.yahoo.com/q?s=rohn&d=c&k=c1&t=1y&a=v&p=s&l=on&z=m&q=l
>
>

So, what did Rohn do to get in such a mess? Sounds like a hell of a case
study. It's down to $0.06 now, with an EPS of -$0.31.

544. FS: Mini-UHF crimp on for Proflex (15 pack) New

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 21:03:17 UTC
From: US Patriot <nospam@tome.com>
Message-ID: <pQ0p9.12251$k_2.800119@bgtnsc05-news.ops.worldnet.att.net>
Source record: 133284
Cross-posted to: alt.ham-radio.vhf-uhf,rec.ham-radio.swap,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

I have a bag of 15 Mini-UHF crimp connectors for Proflex new individually
bagged.
These are 3 piece crimp on for Proflex made by RF Industries. Nickel plated
body & silver pin.
If interested please email direct
RW613@lycos.com

545. Re: 10/11-meter Yagi Question?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 22:10:14 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210091410.ea35d91@posting.google.com>
Source record: 133285

"Bert Craig" <wa2si@arrl.netNOSPAM> wrote in message
news:<SrKo9.45782$GF5.2662154@news4.srv.hcvlny.cv.net>...
> Hi everybody,
>
> I have a 3 el. Yagi (Hy-Gain) that I want to use for 10-meters as well as
> CB. I currently run a 40-meter dipole through a tuner and it works really
> well for 10 through 40, including CB. (End-fires like a flame-thrower.)
>
> My question is...is it better to tune the Yagi to be resonant on 28.444 MHz
> and use the tuner for 27.405 MHz, or the other way around? I still chat with
> my father on the CB ch. 40 USB and while adequate, he's still approx. 60 mi.
> away. I notice that tuning for 27.405 MHz puts a little more aluminum in the
> air. (Albeit just a few inches worth.) I just wasn't sure if it made any
> difference. Thanks in advance.

Bert,tune the antenna for the C.B. channel for maximum gain since that
is a groundwave transmission The 10 metre you can apply power as you
wish to be heard, besides that transmission relies on bouncing off of
the ionasphere so it is not a problem regarding power if you decide to
run your antenna vertically
polarised.
Art

546. Re: cutting down 2m antenna for marine VHF band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 22:18:29 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <rL1p9.430$d21.24136@news.bellsouth.net>
Source record: 133286

<wf3h@ptdnospam.com> wrote in message
news:3da13bff.149233856@news.ptdprolog.net...
> I have a 5/8 wavelength antenna, mag mount, cut for 2m ham band. Is it
> possible to cut this for the 157 MHz marine band by shortening the
> whip? Don't want to ruin it if this won't work....

Straighten out an old hanger and replace the whip in the ferrule with it.
Cut it down to length to see
if it'll work. Then you can cut your whip to length.

Jerry
K4KWH
>
>

547. What frequency is this antenna for

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 22:38:41 UTC
From: Terrapan <terrysto@sympatico.ca>
Message-ID: <o72p9.17771$ZO1.835696@news20.bellglobal.com>
Source record: 133287

I aquired a verticle triangular 3 pole antenna.The radials are 103.5 inches long each and fed in the center by rgu 58 cable.It has a black box that the three verticles connect to and in the box are two relay switches controlled by 24vac. The distance between the three radials is 65 inches each. A half inch space between top and bottom poles making a total of 207.5 inches in length each. Can anyone tell me what this ant frequency is and how high should it be mounted from the ground. I suspect it might possibly be a CB antenna although i do not know how to figure out the freq of it.Terrapan.

548. Re: What frequency is this antenna for

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 22:50:57 UTC
From: Fred Flintstoned <legalizeit@hempseed.com>
Message-ID: <DzWdnTmMSOJOLzmgXTWc3Q@News.GigaNews.Com>
Source record: 133288

"Terrapan" <terrysto@sympatico.ca> wrote in message
news:o72p9.17771$ZO1.835696@news20.bellglobal.com...
> I aquired a verticle triangular 3 pole antenna.The radials are 103.5
inches
> long each and fed in the center by rgu 58 cable.It has a black box that
the
> three verticles connect to and in the box are two relay switches
controlled
> by 24vac. The distance between the three radials is 65 inches each. A half
> inch space between top and bottom poles making a total of 207.5 inches in
> length each. Can anyone tell me what this ant frequency is and how high
> should it be mounted from the ground. I suspect it might possibly be a CB
> antenna although i do not know how to figure out the freq of it.Terrapan.

sounds like a 11 meter antenna

--
If you expect people to believe you,
it's up you to prove your correct.

Richard Cranium

549. Information required....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 23:09:49 UTC
From: Ronald Oberloh <wa0kds@yahoo.com>
Message-ID: <3DA4B718.306C5FD1@yahoo.com>
Source record: 133290

I am trying to but back into service an old Hygain 18AVQ vertical and found out that the top 80 meter resonator is missing. Anyone out there give me any information about it? I am assuming it is just an inductor and not a trap. I guess I could just start winding an inductor and start playing.

Thanks
Ron WA0KDS

550. Re: cutting down 2m antenna for marine VHF band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 23:11:31 UTC
From: wf3h@ptdnospam.com
Message-ID: <3da4b664.177933770@news.ptdprolog.net>
Source record: 133291

On Mon, 07 Oct 2002 23:14:30 -0500, Leland Cox <lcox107@comcast.net>
wrote:

>If you cut it down to marine frequency what are you going to use it for?
> If you put it on a boat it will have to be steel for the magnet to
>stick and will not work too good without a ground plane. The mag mount
>is designed to be capacitivly coupled to the ground through the base.
>
>Les, AA4F

use it for NTIA approved land based marine support operations.

551. Re: cutting down 2m antenna for marine VHF band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 23:12:20 UTC
From: wf3h@ptdnospam.com
Message-ID: <3da4b689.177970868@news.ptdprolog.net>
Source record: 133292

On Wed, 9 Oct 2002 18:18:29 -0400, "Jerry Oxendine"
<joxendi@bellsouth.net> wrote:

>
><wf3h@ptdnospam.com> wrote in message
>news:3da13bff.149233856@news.ptdprolog.net...
>> I have a 5/8 wavelength antenna, mag mount, cut for 2m ham band. Is it
>> possible to cut this for the 157 MHz marine band by shortening the
>> whip? Don't want to ruin it if this won't work....
>
>
>Straighten out an old hanger and replace the whip in the ferrule with it.
>Cut it down to length to see
>if it'll work. Then you can cut your whip to length.
>
>

now THERE'S an idea...already calculated, based on the current whip
length, how short the new one should be...

thanks!

552. Re: cutting down 2m antenna for marine VHF band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 23:12:53 UTC
From: wf3h@ptdnospam.com
Message-ID: <3da4b6ad.178006890@news.ptdprolog.net>
Source record: 133293

On Tue, 08 Oct 2002 11:01:33 -0500, 'Doc <w5lz@cwis.net> wrote:

>WF3H,
> Yes, you can cut the antenna for use in the 150 Mhz
>area. How much you will have to shorten the antenna
>depends on the impedance matching device at the base
>of the antenna, though. Trim it in very small 'chunks'
>while watching the SWR. It'll be easy to go too far,
>so take your time.
> 'Doc
yeah i trimmed about 3" off the current whip...didnt shift it out of
the 2m band at all...so it will take some work...

553. Re: ROHN towers stock is trading at .07 cents per share!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 23:29:21 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210091529.5e626442@posting.google.com>
Source record: 133294

"Brent" <brent316@yahoo.com> wrote in message
news:<Wl_o9.51385$aU3.2851359@typhoon.kc.rr.com>...
> Maybe I should ask for some money not to buy them. My last few stocks that I
> bought in the past 6 months pretty much took a nose dive.
>
> Lucent
> WorldCom
> Bethlehem Stl Corp
>
> I'm on a roll. Hmm maybe I should buy some Microsoft...
>
> Brent
>
>
> "Arlen Hall" <no.spam.here@hotmail.com> wrote in message
> news:3da45865.5021069@127.0.0.1...
> >
> >
> >
> > As of 12:25 E.D.T. on 10/09/2-002, ROHN towers stock is trading at .07
> > cents per share!
> >
> >
> > http://finance.yahoo.com/q?s=rohn&d=c&k=c1&t=1y&a=v&p=s&l=on&z=m&q=l
> >
> >

You are doing pretty good.I put $10K on Lucent when they were $66. I
wish I had waited like you till 6 months ago to have done it.Now I am
paying 20% taxes on IRA principal in my retirement but feel comforted
that President Bush says 'he feels my pain'!
Art

554. Re: ROHN towers stock is trading at .07 cents per share!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-09 23:53:40 UTC
From: Jim Pennino <jimp@specsol.com>
Message-ID: <ao2fi4$a2r$1@mail.specsol.com>
Source record: 133295

Ken Finney <kenneth.c.finney@boeing.com> wrote:

> "Arlen Hall" <no.spam.here@hotmail.com> wrote in message
> news:3da45865.5021069@127.0.0.1...
>>
>>
>>
>> As of 12:25 E.D.T. on 10/09/2-002, ROHN towers stock is trading at .07
>> cents per share!
>>
>>
>> http://finance.yahoo.com/q?s=rohn&d=c&k=c1&t=1y&a=v&p=s&l=on&z=m&q=l
>>
>>

> So, what did Rohn do to get in such a mess? Sounds like a hell of a case
> study. It's down to $0.06 now, with an EPS of -$0.31.

Oh, the economy in general, some problems with towers maybe falling down,
threats of lawsuits, the usual stuff...

Last I heard, they had solved all the real problems, i.e. the towers maybe
falling down and lawsuit stuff, but you still have the general economy
problems and the perceived stock value problems.

If it makes you feel better, I bought Rohn when they were about $6.

Buy more? Sell? Get drunk? Go to Vegas 'cause the odds are better?

Gee, the stock market is fun. Let me tell you HOW much fun it is.

--
Jim Pennino

555. Re: What frequency is this antenna for

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 00:00:57 UTC
From: Brent <brent316@yahoo.com>
Message-ID: <Zq3p9.51411$aU3.2873592@typhoon.kc.rr.com>
Source record: 133296

It sounds like a Super Scanner CB antenna. There is a control box for it on ebay.
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1386859725

-Brent

"Terrapan" <terrysto@sympatico.ca> wrote in message news:o72p9.17771$ZO1.835696@news20.bellglobal.com...
> I aquired a verticle triangular 3 pole antenna.The radials are 103.5 inches
> long each and fed in the center by rgu 58 cable.It has a black box that the
> three verticles connect to and in the box are two relay switches controlled
> by 24vac. The distance between the three radials is 65 inches each. A half
> inch space between top and bottom poles making a total of 207.5 inches in
> length each. Can anyone tell me what this ant frequency is and how high
> should it be mounted from the ground. I suspect it might possibly be a CB
> antenna although i do not know how to figure out the freq of it.Terrapan.
>
>

556. Is a car top a good ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 01:03:50 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210091703.7d221fab@posting.google.com>
Source record: 133297

Hi,

I think to buy a buddipole (http://www.buddipole.com) for portable operations with some of its accessories.

About the installation of the dipole (2x 2.5m) itself on its tripod, I have the choice to place the tripod at ground level (0.5-3m high) or, alternative to place the tripod on top of my car or on the cap (it's a golf) from which I can erect it 0.5-3m high also (however under windy conditions I 'm sure it will stay in position without small magnets fixed at the tripod base).

Question : being metallic and highly conductive, is the car top or the cap a good place to install such short dipole or it should be better to place it away from the car (which motor is switched off), in the grass or on the macadam and as high as possible above ground to benefit of a better radiation angle ? Car or field/grass/macadam ?

Thanks.

Thierry
http://www.astrosurf.com/lombry/menu-qsl.htm

557. FS: Rohn 25 Package Deal!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 01:06:57 UTC
From: Headhamster <headhamster@earthlink.net>
Message-ID: <Ro4p9.18474$OB5.1816787@newsread2.prod.itd.earthlink.net>
Source record: 133298
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.cb,rec.radio.swap

I have 60 feet of Rohn 25 available in North Jersey. This is a package deal which includes:

One top section with rotor plate and guy brackets
Five regular sections
One short roof mount base with foot plates
One ground mount base plate
One house bracket
And, Three philystran guy cables with attached hardware.

This is pickup only as I no longer have a truck to transport it in.

I will take $350 for the whole package or possibly trade for something of equal value.

73, de Rich

558. For /P ops, screwdrive/whip or dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 01:22:57 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210091722.1f36bd54@posting.google.com>
Source record: 133299

Hi,

Without speaking about beams, I would like to use for portable operations (mini trips, holidays, etc) either a screwdrive antenna (2-10m high) or a (buddi)dipole 5-10m long (max.).

I'm searching an HF (at least 40-10m) mobile antenna fine for DXing, light, easy to install and remove without permanent installation.

What could be the advantage of using a screwdrive antenna vs the second model knowing that I move most of the time in car but from time to time by foot/plane also if we speak of holidays abroad.

The dipole seems easier to collapse and transport, and should allow me to avoid a permanent installation on the car.

Now about their performances : what model should be "better" for DXing, knowing that the buddipole comes with rotator arms and screwdrives seem to be know for their huge loss ?

Some ideas to share about portable operations and brands to suggest (i known nothing at all about screwdrives and their performances vs dipole, true vertical, etc) ?

Thanks

Thierry
http://www.astrosurf.com/lombry/menu-qsl.htm

559. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 01:55:58 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <W15p9.658$CE4.87506@news.bellsouth.net>
Source record: 133300

My 2 cents-
I was under the impression that the reason to use ladder-line or
window-line or twin-lead (regardless of 300,450, 600 ohm)
is the fact that it is "Low Loss" - (oh, and cheaper than coax) - even with
standing waves, more signal can get to the antenna. I've used 300 and 450
ohm ..
. - all ya gotta do is is wind a balun to match the impedence - or make up a
matching section -
then you can run a long line without the loss of coax. even at vhf
w4pmj

"Wes Stewart" <n7ws@nowhere.com> wrote in message
news:adaspuo6d4tjag7mq2mb0e7movuti5n8fg@4ax.com...
> On 04 Oct 2002 23:24:22 GMT, jgboyles@aol.com (JGBOYLES) wrote:
>
> |>but why is it a 450 or 600 ohm
> |>transmission line 'conveys' energy better and more efficiently than a
line
> |>with less resistance?
> |
> |I always thought it was because the "lower" impedance transmission lines
were
> |coaxial cable.
>
> No.
>
> |Coax has higher dielectric loss, as well as I^2*R losses.
>
> Technically true, but practically the dielectric loss at HF to VHF is
> a non-issue.
>
> | Open
> |wire line generally uses larger conductors than coax.
>
> Maybe, maybe not. Six-inch spaced 600 ohm open wire will use 12 AWG
> (0.08"). The center conductor of RG213 is the same size and the outer
> conductor is a hell of a lot bigger than that. I have some "450 ohm"
> window line with 18 AWG conductors
>
> |On coaxial lines having
> |a high VSWR, the return loss is high, because of dielectric losses, so
less
> |power is radiated.
>

> Once again you are overestimating the effects of dielectric loss. The
> reason loss is higher in lines using dielectric is that the presence
> of the dielectric requires smaller conductors be used if a constant Zo
> is to be maintained. It is the reduction of conductor size, hence
> higher I^2 R loss, that causes the increased loss, not the presence of
> the dielectric.
>
> |450 or 600 ohm line does not have these losses, so more
> |power is radiated. These lines can operate with a high VSWR, and still
> |deliver most of your power to your antenna, where it will be radiated.
>
> Unless of course, you are using window line and you add water <g>.
>
> Wes N7WS
>

560. Re: Where to get aluminium tubing???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 02:01:30 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3DA4DF79.CA72D331@nettally.com>
Source record: 133301
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,uk.radio.amateur

Saddam Hussain is in hot water over buying aluminum tubing. It seems that GWB thinks he is making a
centrifuge to extract a newcle-a-r bomb. So iff'n your buying aluminim tubing watch out for a cruise
missile.

Art Unwin KB9MZ wrote:

> "Steve G1XOW" <steve@wragge.fsworld.co.uk> wrote in message
news:<an9c75got1@newsg2.svr.pol.co.uk>...
> > Try ASC Metails in Lincolnshire. Very good and next day delivery in
> > Midlands.
> >
> > http://www.ascmetals.com/
> >
> > Cheers, Steve G1XOW
> >
> > "M3SEM" <ff@vv.vv> wrote in message
> > news:%0Xk9.1165$hS4.8997@newsfep3-gui.server.ntli.net...
> > > Wondering if anyone can point me in the direction of a supplier of
> > aluminium
> > > tubing in the UK, for some antenna projects??
> > >
> > > Thanks in advance :)
> > >
> > >
>
> Gentlemen As a former Brit I still retain my love of experimenting
> with
> antennas and thus over the years have accumulated quite a pile of
> aluminium tubing.This pile is being shipped off to the scrapyard by my
> grandaughter because I have little use for it anymore.
> The reason from moving away from aluminium is that I find telescopic
> fishing poles to be much more available,less expensive, can be
> extended to over
> 320 inches aside using aluminium in the boom area, Can use wire inside
> or aluminium paper on the outside so the basic rod material used lasts
> for ever because modification to length over experimental time does
> not damage the pole itself.
> P.S.
> When an ice storm comes along the rod believes it has caught a fish,
> it bends as all fishing rods do and the ice slides off !
>
> Art KB9MZ....XG.

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

"Jazz is not dead. It just smells funny." -F.Z.

561. Re: ROHN towers stock is trading at .07 cents per share!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 02:03:01 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <ahn9qu436vith8mpgfj2vabjekf3mv2rpu@4ax.com>
Source record: 133302

On 9 Oct 2002 16:29:21 -0700, aunwin@fgi.net (Art Unwin KB9MZ) wrote:

|You are doing pretty good.I put $10K on Lucent when they were $66. I
|wish I had waited like you till 6 months ago to have done it.Now I am
|paying 20% taxes on IRA principal in my retirement but feel comforted
|that President Bush says 'he feels my pain'!

I "invested" $13K in this turkey. My "investment" is now worth $270,
not counting all those wonderful "spin-offs" like Agere where they
gave me 4 shares now worth $0.65/share. Whoopie!

The good news is that I didn't buy more at $5.00 where is looked like
it couldn't go any lower. (Closed at $0.67 today)

Rohn looks like a winner compared to this.

562. Re: G5RV, single or double length ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 02:20:41 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <5p5p9.842$CE4.101190@news.bellsouth.net>
Source record: 133303

Amen - Hams oughta make their own antenna - its fun, educational, and
sometimes cheaper..
w4pmj

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:anmik9$jf5$1@knossos.btinternet.com...
> Dear Thierry,
>
> Try to erase G5RV from your mind. With the best and kindest of motives I
> suggest you de-brainwash yourself.
>
> Don't buy anything except a reel of 16 or 14 gauge enamelled copper wire.
>
> Erect a dipole of no particular length, as high as possible, which will
> nicely fit into your back yard. It will do very well if its overall length
> is greater than about 1/3-wavelength at the lowest frequency you are
> interested in.
>
> Feed it roughly at its centre with open-wire or 450-ohm ladder line, of no
> particular length except that it's long enough to come all the way back to
> the shack with 5 or 10 extra feet to allow for contingencies.
>
> And there you have it. It will be the most power-efficient, multi-band,
> multi-directional, multi-elevation angle, DX and local, radiating and
> receiving system possible for your site.
>
> Its beautiful simplicity is an obvious self-recommendation.
>
> But I do not want to deter experimentation. Try the easiest to erect
> antenna first.
> ---
> Reg.
>
>
>
>

563. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 02:30:54 UTC
From: N4LQ <N4LQ@igLou.com>
Message-ID: <3da394c2_1@news.iglou.com>
Source record: 133352

There was an article in an old 73 magazine that described the "Super Gainer 40m dipole". It was a folded dipole made from tv twin lead and fed with 50 ohm coax mounted 7 ft. off the ground with 3 reflector wires laying on the ground underneath. The author claimed 20+ db gain for local stations, about 300 miles max vs. a high dipole. I tend to believe this after doing the same with a low 40m loop.

--
Steve Ellington N4LQ.
"'Doc" <w5lz@cwis.net> wrote in message news:3DA30033.54DFBE@cwis.net...
>
>
> Ken,
> The size of the wire should be large enough so that it will
> support it's own weigth plus whatever ice, etc, may form on it.
> For HF purposes, if the wire ~will~ support it's own weight,
> there will probably be very little advantage in using larger
> wire.
> Another wire placed under the dipole will make a difference
> in the radiation pattern of the antenna. So will having a very
> good ground system (basically the same thing, sort of), and
> varying the height of the antenna. How much difference will it
> make? I don't think anyone can tell you that (including those
> using antenna modeling programs), so try it. See for your self.
> I can say that there isn't going to be anything close to 20 dbi
> of difference!(LOL)
> 'Doc

564. Re: Helical Antenna Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 02:53:57 UTC
From: richardharrison@webtv.net
Message-ID: <2707-3DA4EBC5-56@storefull-2318.public.lawson.webtv.net>
Source record: 133304

Dean Elwood wrote:
"I`d be grateful if you could point me in the right direction for finding that wealth of information!"

Do a search on: "slinky antenna". I got 1591 hits on a simple MSN search.

In 1949 one of the operators at the KPRC / KXYZ transmitting plant where I worked was a radio amateur, James L. Davis, W5LIT, now SK. "J.L." replaced the base loaded whip mounted on the rear bumper of his new Ford with a bamboo fishing pole of about the same length as the whip. He wrapped enough turns of wire around his pole to resonate without the base coil. He swore the performance was much better on 75 meters. The difference I noted was that after the replacement he frequently fired off a corona from the tip of his fishing pole antenna. I wasn`t paying too close attention to his ham operations, but that corona did get my attention.

Best regards, Richard Harrison, KB5WZI

565. Re: ROHN towers stock is trading at .07 cents per share!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 03:19:43 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ao2rkf$6jf$0@208.206.142.90>
Source record: 133305

Wes Stewart wrote:
>
> On 9 Oct 2002 16:29:21 -0700, aunwin@fgi.net (Art Unwin KB9MZ) wrote:
>
> |You are doing pretty good.I put $10K on Lucent when they were $66. I
> |wish I had waited like you till 6 months ago to have done it.Now I am
> |paying 20% taxes on IRA principal in my retirement but feel comforted
> |that President Bush says 'he feels my pain'!
>
> I "invested" $13K in this turkey. My "investment" is now worth $270,
> not counting all those wonderful "spin-offs" like Agere where they
> gave me 4 shares now worth $0.65/share. Whoopie!
>
> The good news is that I didn't buy more at $5.00 where is looked like
> it couldn't go any lower. (Closed at $0.67 today)
>
> Rohn looks like a winner compared to this.

A relative has lost $700K so far. I mentioned to him a couple years ago
that he should get his money out while he still could, and he said
"Taxes would kill me if I did that". .....yeah.

Dick

566. Re: ROHN towers stock is trading at .07 cents per share!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 03:29:04 UTC
From: Brent <brent316@yahoo.com>
Message-ID: <4u6p9.51428$aU3.2892559@typhoon.kc.rr.com>
Source record: 133306

>
> A relative has lost $700K so far. I mentioned to him a couple years ago
> that he should get his money out while he still could, and he said
> "Taxes would kill me if I did that". .....yeah.
>
> Dick

OUCH!! That just has to hurt!!!

Brent

567. Re: What frequency is this antenna for

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 04:13:05 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210092013.26eecc27@posting.google.com>
Source record: 133307

"Fred Flintstoned" <legalizeit@hempseed.com> wrote in message
news:<DzWdnTmMSOJOLzmgXTWc3Q@News.GigaNews.Com>...
> "Terrapan" <terrysto@sympatico.ca> wrote in message
> news:o72p9.17771$ZO1.835696@news20.bellglobal.com...
> > I aquired a verticle triangular 3 pole antenna.The radials are 103.5
> inches
> > long each and fed in the center by rgu 58 cable.It has a black box that
> the
> > three verticles connect to and in the box are two relay switches
> controlled
> > by 24vac. The distance between the three radials is 65 inches each. A half
> > inch space between top and bottom poles making a total of 207.5 inches in
> > length each. Can anyone tell me what this ant frequency is and how high
> > should it be mounted from the ground. I suspect it might possibly be a CB
> > antenna although i do not know how to figure out the freq of it.Terrapan.
>
>
> sounds like a 11 meter antenna

It sounds like a Super Scanner C.B. antenna which allowed you to
switch to 3 different directions with the remaining two verticals
acting as reflectors.
The radial forms carried coax of a suitable length from the driven
vertical.
The problem is that this requires THREE relays and you only mention
TWO !
Art

568. Re: Does HF typically interfere with satellite dishes?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 05:11:12 UTC
From: "rick@rickfrazier.com" <rick@rickfrazier.com>
Message-ID: <3DA50BF0.4EC8FA78@rickfrazier.com>
Source record: 133308

No, but you can get some really odd things with a satellite dish that isn't properly grounded.

Take a look at how the installer grounded the sat dish... Most don't do much of a job of it, and some leave off the ground connection altogether. This is a recipe for disaster, particularly if you're in lightning country... and it can make for strange operation if you have high RF fields nearby...

--Rick AH7H

StarGazer wrote:

> asfd

569. Re: Information required....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 06:08:48 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA51970.6601F0E3@cwis.net>
Source record: 133309

Ron,
It's a trap (inductor and capacitor). The 18AVQ has
been out of production so long that your best bet is to
find someone who has one, or parts of one. It's been
almost 30 years since I had one, so I'm not going to be
any help ...
'Doc

570. Re: Does HF typically interfere with satellite dishes?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 06:13:53 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA51AA1.75FE447C@cwis.net>
Source record: 133310

Stargazer,
Typically, a satelite dish shouldn't be affect by HF
signals. But, it ~can~ be if it isn't installed correctly.
The dish's feed line can carry RF from the HF radio into
the house like any other conductor. What happens when it
gets into the house is anyone's guess. Treat it like you
would any other RFI problem.
'Doc

571. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 06:20:17 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA51C21.79D2FE6@cwis.net>
Source record: 133311

Brent,
Okay. I don't know about the 'stronger' part, but
bandwidth isn't going to be affected too much by using
coax as the conductor (seriously doubt if bandwidth is
affected at all). That doesn't mean I think you shouldn't
do it.
'Doc

572. Re: Is a car top a good ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 08:03:04 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3da5343b$0$186$ba620e4c@news.skynet.be>
Source record: 133312

Dear Thierry,

BTW In America the "golf" model from VW is sold under the name of "Rabbit".

The general rule for an horizontal dipole like the one you speak about, is to be erected the highest possible. The roof top of your car being about 1.5m above ground, you may use the frame of your car to attach your dipole 1.5m higher. The result must be very similar between this solution and the antenna posted above ground with the same pole or tripod.

73 de Jacques - ON5MJ

(what is your call sign ?)

573. Re: ROHN towers stock is trading at .07 cents per share!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 08:04:45 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA5349D.34012D50@ieee.org>
Source record: 133313

Brent wrote:
> Maybe I should ask for some money not to buy them. My last few stocks that I
> bought in the past 6 months pretty much took a nose dive.

My put-LEAPS have tripled.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

574. Re: ROHN towers stock is trading at .07 cents per share!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 09:26:31 UTC
From: Paulo Calvo <nospam@nospam.nospam>
Message-ID: <3da547c9$0$9447$4d4efb8e@read.news.pt.uu.net>
Source record: 133314

Instead of buying expensive paper, invest your money in real business run by people you trust: yourself!

I always wonder why people is so dumb that gives money away to people they don't know...

Greed...

"Dick Carroll" <dixie@townsqr.com> wrote in message news:ao2rkf$6jf$0@208.206.142.90...
>
>
> Wes Stewart wrote:
> >
> > On 9 Oct 2002 16:29:21 -0700, aunwin@fgi.net (Art Unwin KB9MZ) wrote:
> >
> > |You are doing pretty good.I put $10K on Lucent when they were $66. I
> > |wish I had waited like you till 6 months ago to have done it.Now I am
> > |paying 20% taxes on IRA principal in my retirement but feel comforted
> > |that President Bush says 'he feels my pain'!
> >
> > I "invested" $13K in this turkey. My "investment" is now worth $270,
> > not counting all those wonderful "spin-offs" like Agere where they
> > gave me 4 shares now worth $0.65/share. Whoopie!
> >
> > The good news is that I didn't buy more at $5.00 where is looked like
> > it couldn't go any lower. (Closed at $0.67 today)
> >
> > Rohn looks like a winner compared to this.
>
>
>
>
> A relative has lost $700K so far. I mentioned to him a couple years ago
> that he should get his money out while he still could, and he said
> "Taxes would kill me if I did that". .....yeah.
>
> Dick

575. Re: Information required....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 11:01:24 UTC
From: k3bu@aol.com
Message-ID: <20021010070124.03242.00000965@mb-fo.aol.com>
Source record: 133315

>
>I am trying to but back into service an old Hygain 18AVQ vertical and
>found out that the top 80 meter resonator is missing. Anyone out there
>give me any information about it? I am assuming it is just an inductor
>and not a trap. I guess I could just start winding an inductor and start
>playing.
>
>Thanks
>Ron WA0KDS
>

It is just inductor, sitting above 4 "radials" that resonate the 18AVT on 40 m.
There are no capacitors in the top coil (unless it uses inter-turn capacitance)
. I took it appart and seen it with my eyes. Coil is inserted in the fiberglass
tubing sleeve.

Yuri, K3BU

576. Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 12:02:28 UTC
From: Dean Elwood <dean@legallyspeaking.co.uk>
Message-ID: <ao3q8k$15f$1@helle.btinternet.com>
Source record: 133316

Well, I measured my loft last night. I have two separate attic spaces, which could be connected by drilling a small hole in some plasterboard. I have about 18ft available space in each, so theoretically, could put up a 36 ft or so dipole (which would get me nicely onto 20m which is about 33).

Question is this: Because this space is in the apex of the roof, there's no way I could set a dipole's legs out straight. They would be slightly s-shaped (not massively off though). Is that likely to make a big difference? There would need to be some support at these bends, probably by way of pulling the leg one way or the other with a cord of some sort.

If so, would you say that a stealth antenna on the roof (maybe one of the Isotropic things) is better than a slightly crooked dipole in the attic? I appreciate there's a whole bunch of variables to that question, but as a general rule of thumb?

Oh, cost is also a factor - dipole's are very cheap, Isotropics are quite expensive for that they are.

Thanks,

D

577. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 12:50:10 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DA576DB.DC4B3152@tampabay.rr.com>
Source record: 133317

if you want to play on HF why dont you use hamsticks and the dipole adapter that they sell on hamsticks website i think they would only be about 14-18 foot long total and should work well for you
sure beats giving yourself a head ache trying to figure out an attic dipole

Dean Elwood wrote:

> Well, I measured my loft last night. I have two separate attic spaces, which
> could be connected by drilling a small hole in some plasterboard. I have
> about 18ft available space in each, so theoretically, could put up a 36 ft
> or so dipole (which would get me nicely onto 20m which is about 33).
>
> Question is this: Because this space is in the apex of the roof, there's no
> way I could set a dipole's legs out straight. They would be slightly
> s-shaped (not massively off though). Is that likely to make a big
> difference? There would need to be some support at these bends, probably by
> way of pulling the leg one way or the other with a cord of some sort.
>
> If so, would you say that a stealth antenna on the roof (maybe one of the
> Isotropic things) is better than a slightly crooked dipole in the attic? I
> appreciate there's a whole bunch of variables to that question, but as a
> general rule of thumb?
>
> Oh, cost is also a factor - dipole's are very cheap, Isotropics are quite
> expensive for that they are.
>
> Thanks,
>
> D

578. Re: Cushcraft MA5B Vs. TGM MQ-2 Which Is better?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 13:08:29 UTC
From: rcuffee@hotmail.com
Message-ID: <df27559b.0210100508.f26ab8e@posting.google.com>
Source record: 133318

I thought the 5 band Hexbeam has a 18 ft diameter.
Which model has a 11 ft diameter?

StarGazer <pti@capnet.com> wrote in message news:<3DA462C0.51B6786A@capnet.com>...
> The HexBeam is only 11 ft in diameter. And it is made mostly
> made out of wire which is much more invisible than metal
> tubing. And it is more broadbanded than the other antennas.
>
>
>
> RC wrote:
>
> > I am thinking about installing a small beam; however, I can't decide
> > between the MA5B beam and the MQ-2 quad. Since I have a HOA, I will
> > only be able to install the antenna at 25 feet. Which antenna has the
> > better performance? By the way, the HexBeam is too large, so I am not
> > considering it.
> >
> > Thanks

579. Re: Information required....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 13:23:02 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <Wafp9.52710$VQ2.11574926@twister.midsouth.rr.com>
Source record: 133219

Hello,

You may want to contact hy-gain customer service... I ordered a trap from
for an old vertical a couple of months ago and they were able to replace it.
The cost was very reasonable. They are slow, but it's worth the wait.

Ken

"Yuri Blanarovich" <k3bu@aol.com> wrote in message
news:20021010070124.03242.00000965@mb-fo.aol.com...
> >
> >I am trying to but back into service an old Hygain 18AVQ vertical and
> >found out that the top 80 meter resonator is missing. Anyone out there
> >give me any information about it? I am assuming it is just an inductor
> >and not a trap. I guess I could just start winding an inductor and start
> >playing.
> >
> >Thanks
> >Ron WA0KDS
> >
>
> It is just inductor, sitting above 4 "radials" that resonate the 18AVT on
40 m.
> There are no capacitors in the top coil (unless it uses inter-turn
capacitance)
> . I took it appart and seen it with my eyes. Coil is inserted in the
fiberglass
> tubing sleeve.
>
> Yuri, K3BU

580. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 14:09:25 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA58A15.3911C164@ieee.org>
Source record: 133220

Dean Elwood wrote:
> Question is this: Because this space is in the apex of the roof, there's no
> way I could set a dipole's legs out straight. They would be slightly
> s-shaped (not massively off though). Is that likely to make a big
> difference? There would need to be some support at these bends, probably by
> way of pulling the leg one way or the other with a cord of some sort.

A "slightly s-shaped" dipole should work just fine. You can lower the
resonant frequency by adding a capacity hat to each end. A-frame attics
are ideal for end hats.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

581. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 14:16:33 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ao4241$n0i$0@208.207.71.150>
Source record: 133221

Dean Elwood wrote:

Because this space is in the apex of the roof, there's no
> way I could set a dipole's legs out straight. They would be slightly
> s-shaped (not massively off though). Is that likely to make a big
> difference? There would need to be some support at these bends, probably by
> way of pulling the leg one way or the other with a cord of some sort.
>

Put it up. The 's' shape won't matter. It will work, tho this assumes
non-metallic roof material. Just keep it away from all metal objects as
far as possible.
I like to use nylon cord and small nails to suspend it a few inches
from the wooden roof structure. There are considerable RF voltages in so
me places on antennas and you want to preclude any possibility of
arcing.
Your main problem will be with RFI in the household when you run much
power. You may need to keep your power level down to 25 watts or so if
that proves to be a serious problem. You'll be determining that for
yourself.

> If so, would you say that a stealth antenna on the roof (maybe one of the
> Isotropic things) is better than a slightly crooked dipole in the attic?

Emphatically, NO. Attic Dipoles, even compromised ones, should be much
better.

Dick

582. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 15:00:34 UTC
From: Brent <brent316@yahoo.com>
Message-ID: <mCgp9.51446$aU3.2916402@typhoon.kc.rr.com>
Source record: 133222

Well hopefully I get it up this weekend. I'll let everyone know how it goes.
Thanks for the replies.

-Brent

"'Doc" <w5lz@cwis.net> wrote in message news:3DA51C21.79D2FE6@cwis.net...
> Brent,
> Okay. I don't know about the 'stronger' part, but
> bandwidth isn't going to be affected too much by using
> coax as the conductor (seriously doubt if bandwidth is
> affected at all). That doesn't mean I think you shouldn't
> do it.
> 'Doc

583. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 15:01:34 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <iDgp9.52715$VQ2.11600279@twister.midsouth.rr.com>
Source record: 133223

Hello,

A dipole is the way to go... Just be sure to cut it a little longer than
your preferred operating frequency. It's easier to prune and tune than
solder and curse.

Ken

"Dean Elwood" <dean@legallyspeaking.co.uk> wrote in message
news:ao3q8k$15f$1@helle.btinternet.com...
> Well, I measured my loft last night. I have two separate attic spaces,
which
> could be connected by drilling a small hole in some plasterboard. I have
> about 18ft available space in each, so theoretically, could put up a 36 ft
> or so dipole (which would get me nicely onto 20m which is about 33).
>
> Question is this: Because this space is in the apex of the roof, there's
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> way I could set a dipole's legs out straight. They would be slightly
> s-shaped (not massively off though). Is that likely to make a big
> difference? There would need to be some support at these bends, probably
by
> way of pulling the leg one way or the other with a cord of some sort.
>
> If so, would you say that a stealth antenna on the roof (maybe one of the
> Isotropic things) is better than a slightly crooked dipole in the attic? I
> appreciate there's a whole bunch of variables to that question, but as a
> general rule of thumb?
>
> Oh, cost is also a factor - dipole's are very cheap, Isotropics are quite
> expensive for that they are.
>
> Thanks,
>
> D
>
>

584. Re: Does HF typically interfere with satellite dishes?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 15:07:48 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <ao4545$j869h$1@ID-52642.news.dfncis.de>
Source record: 133224

No. I have found no circumstances where any HF band tx causes problems for my DirecTV system.
(500w 40 dipole, 500W T-6 13-30 mhz log @ 52'). The dish is about 75' from the tower.

Nor have I found any problem with 2m or 70cm at 160w out.

I've seen the question asked many times, and have never seen a report of interfernce to DTV.

...hasan, N0AN

"StarGazer" <pti@capnet.com> wrote in message
news:3DA4633E.BA7D0212@capnet.com...
> asfd
>

585. Re: Is a car top a good ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 15:23:43 UTC
From: Bob Nielsen <nielsen@remove_this.oz.net>
Message-ID: <ao461vtvu0@216.39.144.81>
Source record: 133225

On Thu, 10 Oct 2002 10:03:04 +0200, ON5MJ wrote:
> Dear Thierry,
>
> BTW In America the "golf" model from VW is sold under the name of "Rabbit".

It used to be, but VW changed the name here to "golf" several years ago.

Bob, N7XY

586. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 15:25:34 UTC
From: Dean Elwood <dean@legallyspeaking.co.uk>
Message-ID: <ao465e$qp5$1@paris.btinternet.com>
Source record: 133226

Many thanks to all of you for that advice, I think I'll go with the attic dipole which seems to be the majority opinion.

Just one thing though, these capacitive "hats" that I keep hearing about - where do you get them, and how do you tune them exactly?

And presumably they just mount at the end of each leg of the dipole?

By the way, I don't anticipate too much EMC problems - I'm only licensed for 10 watts (Foundation Licensee) anyway, so won't be running more than that.

Cheers,

Dean
M3DPE

"Ken N4VSD" <REMOVECAPSn4vsd@yahoo.com> wrote in message
news:iDgp9.52715$VQ2.11600279@twister.midsouth.rr.com...
> Hello,
>
> A dipole is the way to go... Just be sure to cut it a little longer than
> your preferred operating frequency. It's easier to prune and tune than
> solder and curse.
>
> Ken
>
>
> "Dean Elwood" <dean@legallyspeaking.co.uk> wrote in message
> news:ao3q8k$15f$1@helle.btinternet.com...
> > Well, I measured my loft last night. I have two separate attic spaces,
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> > could be connected by drilling a small hole in some plasterboard. I have
> > about 18ft available space in each, so theoretically, could put up a 36
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> > or so dipole (which would get me nicely onto 20m which is about 33).
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> > Question is this: Because this space is in the apex of the roof, there's
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> > way I could set a dipole's legs out straight. They would be slightly
> > s-shaped (not massively off though). Is that likely to make a big
> > difference? There would need to be some support at these bends, probably
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> > way of pulling the leg one way or the other with a cord of some sort.
> >
> > If so, would you say that a stealth antenna on the roof (maybe one of
the

> > Isotropic things) is better than a slightly crooked dipole in the attic?
I
> > appreciate there's a whole bunch of variables to that question, but as a
> > general rule of thumb?
> >
> > Oh, cost is also a factor - dipole's are very cheap, Isotropics are
quite
> > expensive for that they are.
> >
> > Thanks,
> >
> > D
> >
> >
>
>

587. PS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 15:36:48 UTC
From: Dean Elwood <dean@legallyspeaking.co.uk>
Message-ID: <ao46qg$i06$1@helle.btinternet.com>
Source record: 133227

I like the look of the Hamsticks antenna's. 7ft high vertical for all hf bands.

Are these any good? Also, being designed for a vehicle, presumably I need to create some kind of ground plane on the roof? How does that work, or is it not actually recomended?

D

588. Re: Information required....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 16:19:46 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA5A8A2.5D0279C2@cwis.net>
Source record: 133228

Yuri,
It's an 18AVQ, not the 18AVT. It was discontinued around
1970(?) when newer models came out. The traps were all
in metal 'cans' which made up part of the capacitor.
'Doc

589. Re: For /P ops, screwdrive/whip or dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 16:36:21 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210100836.86bed75@posting.google.com>
Source record: 133229

lombryt@hotmail.com (Thierry) wrote in message
news:<db35a0c.0210091722.1f36bd54@posting.google.com>...
> Hi,
>
> Without speaking about beams, I would like to use for portable
> operations (mini trips, holidays, etc) either a screwdrive antenna
> (2-10m high) or a (buddi)dipole 5-10m long (max.).

Use both. There are times each could be better than the other.
>
> I'm searching an HF (at least 40-10m) mobile antenna fine for DXing,
> light, easy to install and remove without permanent installation.

Loads of them...I built my own.
>
> What could be the advantage of using a screwdrive antenna vs the
> second model knowing that I move most of the time in car but from time
> to time by foot/plane also if we speak of holidays abroad.

Better close in performance on the low bands for one thing, using the
dipole.
>
> The dipole seems easier to collapse and transport, and should allow me
> to avoid a permanent installation on the car.

I use portable dipoles often when out portable. Hard to beat for the
$$$ involved. I sling through any nearby trees, or take my own mast if
needed.
>
> Now about their performances : what model should be "better" for
> DXing, knowing that the buddipole comes with rotator arms and
> screwdrives seem to be know for their huge loss ?

Just depends on the band, etc. Each would work. Screwdrivers huge
loss???
Someone is taking you for a long ride...:(Only the cheap poorly made
screwdrivers are overly lossy. The best ones are near, or at, the top
of the heap.
>
> Some ideas to share about portable operations and brands to suggest (i
> known nothing at all about screwdrives and their performances vs
> dipole, true vertical, etc) ?

Dunno. Dipoles are cheap and easy to make, even on the fly. Just throw
a spool of wire in the trunk. You could take a small tuner and ladder
line, and feed a single 40m dipole with good results from 40-10 m. Or

make single band dipoles fed with coax. You can't really put a number on the comparitive performance of each type. Some paths and bands the dipole would win. Some , the vertical mobile antenna. MK

590. Re: For /P ops, screwdrive/whip or dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 16:41:10 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210100841.48dd5dd@posting.google.com>
Source record: 133230

lombryt@hotmail.com (Thierry) wrote in message
news:<db35a0c.0210091722.1f36bd54@posting.google.com>...
> Hi,
>
> Without speaking about beams, I would like to use for portable
> operations (mini trips, holidays, etc) either a screwdrive antenna
> (2-10m high) or a (buddi)dipole 5-10m long (max.).

P.S... I also use a beam portable on occasion. Not nearly as hard as
you might think, but a little more work than a simple dipole. Here's a
shot of mine at the last field day.. It all fits in the back of that
old truck. http://web.wt.net/~nm5k/fd34.jpg
MK

591. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 17:24:28 UTC
From: richardharrison@webtv.net
Message-ID: <17691-3DA5B7CC-28@storefull-2313.public.lawson.webtv.net>
Source record: 133231

Doc, W5LZ wrote:
"(seriously doubt if bandwidth is affected at all)."

This was in response to using a fat antenna conductor versus a thin conductor.

Experience from the earliest days of radio contradicts the idea that fat versus thin makes no difference. Large antenna conductor cross section lowers Q.

Multiple paralleled wire antennas were used in early times to lower radiotelegraph character distortion. In recent times conical antennas have been used for better TV signals.

Arnold B. Bailey has a simplified explanation on page 303 of "TV and Other Receiving Antennas":

"If the surface is a thin wire, resonance will occur sharply at one frequency, predicated by the small point at which reflection of the wave occurs at the open end of the wire. Here the transition at the open end of the wire is abrupt and finite. If the configuration is such that a large metallic surface is involved instead of a thin wire, the wave traveling on the large surface, as it approaches the free end of the antenna, will tend to flow around the end of the antenna rather than be abruptly changed in direction. This tends to make the antenna les frequency sensitive----."

No mathematical proof, but some speculation is better than no explanation at all of an often observed phenom`. Does a capacity hat improve bandwidth? A ragged end would seem more promising to me.

Best regards, Richard Harrison, KB5WZI

592. Re: Is a car top a good ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 18:14:20 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3da5c3f2$0$1539$ba620e4c@news.skynet.be>
Source record: 133232

I have learned something tonight. Probably Golf is more class than Rabbit.
Sorry for the mistake.

593. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 18:32:19 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ao4h3i$4vf$1@helle.btinternet.com>
Source record: 133233

Richard said -
> Experience from the earliest days of radio contradicts the idea that fat
> versus thin makes no difference. Large antenna conductor cross section
> lowers Q.
==========

To see a significant and useable difference in Q and bandwidth on an 80m
dipole it is necessary to change the antenna conductor from an 18-gauge wire
to a 3-feet diameter cage of enormous weight and collapses every winter
under wind and ice loading.

In any case, any broadening of system bandwidth can be more than nullified
by the effects of the feedline and TUNER Q.

The number of times this subject appears on these walls is entirely out of
proportion with the magnitude of any effects on bandwidth.

Yours Reg.

594. Re: Is a car top a good ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 19:04:40 UTC
From: Thierry Lombry <lombryt@hotmail.com>
Message-ID: <3da5cf26_2@news.vo.lu>
Source record: 133234

"ON5MJ" <on5mjREMOVE@skynet.be> a crit dans le message news:
3da5c3f2$0$1539$ba620e4c@news.skynet.be...
> I have learned something tonight. Probably Golf is more class than Rabbit.
> Sorry for the mistake.
>
>

Ok, go for Golf then...

Ok also to use the ground in place of my car. It will be easier for me to place the dipole at ground level, may be on top of a longer mast (3m high) to reach "higher" heights when working in the field.

Thierry

595. Re: Is a car top a good ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 19:33:54 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3da5d629$0$75558$ba620e4c@news.skynet.be>
Source record: 133235

Hi Thierry,

If you want you may contact me straight for any help or opinion (remove "remove" in address), even in French as it's also my mother tongue.

73, de ON5MJ - Jacques.

596. Re: PS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 19:55:09 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <xWkp9.52911$VQ2.11652743@twister.midsouth.rr.com>
Source record: 133236

Hi,

The dipole is the right track... You probably wont even need a capacity hat if the antenna is cut to full size for 20 meters. A capacity hat is just a circle made out of metal or wire added to the ends of the antenna to electrically make it look longer (lower frequency). Imagine a wire with the end connected to the center of a pie pan.

|----------^----------|

Ken

"Dean Elwood" <dean@legallyspeaking.co.uk> wrote in message news:ao46qg$i06$1@helle.btinternet.com...
> I like the look of the Hamsticks antenna's. 7ft high vertical for all hf
> bands.
>
> Are these any good? Also, being designed for a vehicle, presumably I need to
> create some kind of ground plane on the roof? How does that work, or is it
> not actually recomended?
>
> D
>
>

597. EZNEC Patch Antenna File Wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 20:15:53 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <utnbqus3kcj3n9g4ombrq4f2jdrnntaa5t@4ax.com>
Source record: 133237

Has anybody been successful getting Eznec to simulate a patch antenna, and if so, would you mind sharing the antenna file with me to play with?

Thanks,

Jim

Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

598. Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 21:14:49 UTC
From: StarGazer <pti@capnet.com>
Message-ID: <3DA5EDC9.A6841B16@capnet.com>
Source record: 133238

How far off resonance do you have to be before using coax
will significantly affect the antenna system performance.
I'm still using a tuner to get a 1:1 SWR.

I have about 4:1 on the bottom of 80 m and tune it out with
the tuner.

Also.... For 30 m what would be the best off resonance
antenna... A 40 m dipole, 80 m dipole or an Inverted-L for
160 m.
I swear I see a shallow null around 10 MHz with the Inv-L???

599. How come there are shallow nulls with dipoles on other freqs??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 21:16:48 UTC
From: StarGazer <pti@capnet.com>
Message-ID: <3DA5EE40.8FE79A88@capnet.com>
Source record: 133239

With my 160 m Inverted-L I see a minor null in the SWR on
freqs other than 160 m.

Whats up with that??

600. Re: Cushcraft MA5B Vs. TGM MQ-2 Which Is better?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 21:18:13 UTC
From: StarGazer <pti@capnet.com>
Message-ID: <3DA5EE95.C4366940@capnet.com>
Source record: 133240

No.. its 11 ft. It is the 5 band Hexbeam. Of the antennas you mentioned it would be the most invisible.

RC wrote:

> I thought the 5 band Hexbeam has a 18 ft diameter.
> Which model has a 11 ft diameter?
>
> StarGazer <pti@capnet.com> wrote in message news:<3DA462C0.51B6786A@capnet.com>...
> > The HexBeam is only 11 ft in diameter. And it is made mostly
> > made out of wire which is much more invisible than metal
> > tubing. And it is more broadbanded than the other antennas.
> >
> >
> >
> > RC wrote:
> >
> > > I am thinking about installing a small beam; however, I can't decide
> > > between the MA5B beam and the MQ-2 quad. Since I have a HOA, I will
> > > only be able to install the antenna at 25 feet. Which antenna has the
> > > better performance? By the way, the HexBeam is too large, so I am not
> > > considering it.
> > >
> > > Thanks

601. Re: Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 21:52:42 UTC
From: KD5JBN <kd5jbn@NOSPAMadelphia.net>
Message-ID: <3jtbqukcs5bg0g311tbvsaohn8935t0bse@4ax.com>
Source record: 133241

http://www.radiodan.com

For less that $15 bucks I cured the RFI in my S-10 with Chokes from
Dan.

Glenn

On Sun, 06 Oct 2002 04:21:57 GMT, riffin-rich
<riffin-rich@cantspam.me> wrote:

>On Sat, 05 Oct 2002 12:34:20 -0500, CAM <Cecil.A.Moore@ieee.org>
>wrote:
>
>>riffin-rich wrote:
>>> A quick question regarding ferrite cores...where do I find these
>>> things and install them? Is there a particular part number from a
>>> given manufacturer that you'd suggest?
>>
>>For exactly those type problems, I use Amidon FT-150A-F toroids.
>>My mobile amplified speaker was noisey during transmit. One of
>>these toroids cured the problem.
>
>CAM, where do you get the Amidon FT-150A-F toroids? And what exactly
>do they look like? do you have to cut a wire and wrap it or do these
>things just slip over the wire? Where did you put them? One on each
>of the two wires going to the speaker? Or one per pair of wire?
>Thx...
>
>Regards,
>Rich, KB2ZMF, Co Springs

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602. Re: Please Help: 20M Mobile XMT Interference -- I hear my XMT audio on stereo speakers even w/radio off

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 21:57:17 UTC
From: KD5JBN <kd5jbn@NOSPAMadelphia.net>
Message-ID: <2stbqu0i2d1mtji65253qfts5p04o917nf@4ax.com>
Source record: 133242

http://www.radiodan.com
Solved all my 20 Meter RFI problems in my S-10 for under $15 with
Cores from Dan

Glenn

On Sat, 05 Oct 2002 04:25:01 GMT, riffin-rich
<riffin-rich@cantspam.me> wrote:

>Hello fellow hams. Please help me solve this problem...subject says
>it all. 20M appears to be the only band I'm having a problem on...
>If I leave my stereo on, forget it... I blast myself out of the truck
>with the interference. With the stereo off, I still hear my audio
>over the speaker system (very heavily distorted).
>
>Ultimately, I want to leave my stereo on, because I run the radio
>output into a casette/adapter to play the radio output across my
>stereo. As I said, this works great on all bands except 20M
>
>Setup:
>Ford F-250 diesel (no ignition noise--SWEET! ;-)
>Icom IC-706, barefoot, 100W
>SGC SG-230 Coupler
>SGC SG-303 Antenna
>
>Radio is wired to the battery directly...
>
>Thanks,
>Rich Seifert, KB2ZMF, Co Springs

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http://www.newsfeed.com The #1 Newsgroup Service in the World!
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603. Re: 600 or 450 ohm Ladder Line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 21:59:50 UTC
From: KD5JBN <kd5jbn@NOSPAMadelphia.net>
Message-ID: <n1ubqugjr0hfbc8s4vabp784rrokb05nvq@4ax.com>
Source record: 133243

Hey that would go with my "Worked all Neighbors" Cert.

On Wed, 2 Oct 2002 12:39:01 -0500, "Chuck/KE4ETH"
<chuck_hawks@hotmailnospamorama.com> wrote:

>Worked all electronic devices in my house. Now that's funny

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http://www.newsfeed.com The #1 Newsgroup Service in the World!
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604. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 22:11:41 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <ao4tut028vp@enews2.newsguy.com>
Source record: 133247

"StarGazer" <pti@capnet.com> wrote in message
news:3DA5EDC9.A6841B16@capnet.com...
> How far off resonance do you have to be before using coax
> will significantly affect the antenna system performance.
> I'm still using a tuner to get a 1:1 SWR.

It depends.

First what is it's loss without the high swr. From that you can go to
tables or calculate the additional loss from the swr change.

Next how high is the power is you are running. At high swr and high power
you may exceed the voltage rating of the cable.

And last but not least, how much loss can you tolerate.

>
> I have about 4:1 on the bottom of 80 m and tune it out with
> the tuner.

if you have 1db of loss to a dummy load at that frequency and add the 4:1
swr you will add about .8db more loss due to the swr. if you started with a
really bad 3db of loss you would add another 1.5db. so i would say to
ignore it unless you have an extremely long and lossy coax.

>
> Also.... For 30 m what would be the best off resonance
> antenna... A 40 m dipole, 80 m dipole or an Inverted-L for
> 160 m.
> I swear I see a shallow null around 10 MHz with the Inv-L???
>
whatever works best for you.

605. Re: How come there are shallow nulls with dipoles on other freqs??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 22:16:48 UTC
From: jgboyles@aol.com
Message-ID: <20021010181648.08878.00000006@mb-fg.aol.com>
Source record: 133244

>With my 160 m Inverted-L I see a minor null in the SWR on
>freqs other than 160 m.
>
>Whats up with that??

I assume you mean your swr bridge shows an swr below about 3:1 on frequencies other than 1.9 mhz. It is entirely possible that the impedance of your antenna at frequencies other than 160m may yield an swr below 3:1. If this is true, you may have yourself a "multiband" antenna, which has an acceptable swr on more than one band.
An antenna designed for one band may have an added benefit with a low swr on other bands. Depends on the physical dimensions of the antenna, and the frequency it will be used. Some "multiband" antennas of note are: G5RV, OCF Windom, a 40m dipole used on 15m, among others. I suspect some of the "multiband" antennas were designed for one band, and found out by accident that they will work quite well on other bands.
73 Gary N4AST

606. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 22:24:19 UTC
From: Dan/W4NTI <w4nti@mindspringnospam.com>
Message-ID: <ao4um4$60c$1@slb7.atl.mindspring.net>
Source record: 133245

On 80 meters that is insignificant. If you make the TX happy you will do fine.

I use my 160m Inverted L on 10 mhz with good results via a tuner of course. I have also tried my 75 meter dipole via a tuner. The inverted L worked better.

My inverted L is about 190 foot long. And not quite a L. Comes toward earth at the far end. Works well on all bands actually. Bit troublesome on 80 tho. Had to add some doorknob caps to it,

Hope that helps some.

Dan/W4NTI

"StarGazer" <pti@capnet.com> wrote in message
news:3DA5EDC9.A6841B16@capnet.com...
> How far off resonance do you have to be before using coax
> will significantly affect the antenna system performance.
> I'm still using a tuner to get a 1:1 SWR.
>
> I have about 4:1 on the bottom of 80 m and tune it out with
> the tuner.
>
> Also.... For 30 m what would be the best off resonance
> antenna... A 40 m dipole, 80 m dipole or an Inverted-L for
> 160 m.
> I swear I see a shallow null around 10 MHz with the Inv-L???
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.399 / Virus Database: 226 - Release Date: 09-Oct-02

607. Re: How come there are shallow nulls with dipoles on other freqs??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 22:28:57 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA5FF29.4E3F39D0@cwis.net>
Source record: 133246

StarGazer,
It's called harmonics. You will probably find a
fairly decent SWR on twice, three times and four times
the 160 meter resonant frequency. It's normal...
'Doc
PS - and for multipliers of greater than 2-3-4 times
the resonant frequency also.

608. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 22:56:43 UTC
From: N4LQ <N4LQ@igLou.com>
Message-ID: <3da4b410_3@news.iglou.com>
Source record: 133289

I think the autor was getting his gain figures by comparing a high dipole's response to low angle strong short wave bc signals to that of a low dipole's response to short skip stations. In other words, on the low dipole, the sw station could be 20db down while the local stations 10db stronger resulting in 30db gain. Sorta....

--
Steve Ellington N4LQ.
"'Doc" <w5lz@cwis.net> wrote in message news:3DA4173F.7B25CC19@cwis.net...
> Steve,
> You know what they say about things that are too good
> to be true. And you still don't get something for nothing.
> 'Doc

609. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 22:57:25 UTC
From: jgboyles@aol.com
Message-ID: <20021010185725.08878.00000007@mb-fg.aol.com>
Source record: 133248

>How far off resonance do you have to be before using coax
>will significantly affect the antenna system performance.
>I'm still using a tuner to get a 1:1 SWR.
>
>I have about 4:1 on the bottom of 80 m and tune it out with
>the tuner

Depends on the length of coax. Maxwell, W2DU makes an argument in "Reflections" that it doesn't matter where you put an antenna tuner on mobile installations. You can put it at the base of the antenna, or at the transmitter, only if you have a fairly short length <25' of low loss coax. Using a short length coax with a high swr, or a longer with a 4:1 swr and a tuner should be ok.
>Also.... For 30 m what would be the best off resonance
>antenna... A 40 m dipole, 80 m dipole or an Inverted-L for
>160 m.

The EZNEC demo should answer that.

>I swear I see a shallow null around 10 MHz with the Inv-L???

Thats entirely possible. Antennas can show low 50 ohm swr on more than one frequency. An example is a 7 Mhz dipole showing resonance on 21 mhz. The 7 is a half wave, and the 21 is a three half wave dipole.

73 Gary N4AST

610. Re: Cushcraft MA5B Vs. TGM MQ-2 Which Is better?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 23:12:36 UTC
From: Bob Nielsen <nielsen@remove_this.oz.net>
Message-ID: <ao51h4$s1d$0@216.39.144.81>
Source record: 133249

And even if the neighbors can see it, they probably won't recognize it
as being an antenna.

Bob, N7XY

On Thu, 10 Oct 2002 14:18:13 -0700, StarGazer wrote:
> No.. its 11 ft. It is the 5 band Hexbeam. Of the antennas you mentioned it would be
> the most invisible.
>
>
>
> RC wrote:
>
>> I thought the 5 band Hexbeam has a 18 ft diameter.
>> Which model has a 11 ft diameter?
>>
>> StarGazer <pti@capnet.com> wrote in message news:<3DA462C0.51B6786A@capnet.com>...
>> > The HexBeam is only 11 ft in diameter. And it is made mostly
>> > made out of wire which is much more invisible than metal
>> > tubing. And it is more broadbanded than the other antennas.
>> >
>> >
>> >
>> > RC wrote:
>> >
>> > > I am thinking about installing a small beam; however, I can't decide
>> > > between the MA5B beam and the MQ-2 quad. Since I have a HOA, I will
>> > > only be able to install the antenna at 25 feet. Which antenna has the
>> > > better performance? By the way, the HexBeam is too large, so I am not
>> > > considering it.
>> > >
>> > > Thanks
>

611. Re: How come there are shallow nulls with dipoles on other freqs??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 23:28:09 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ao52e9dbd1@paris.btinternet.com>
Source record: 133251

"StarGazer" wrote
> With my 160 m Inverted-L I see a minor null in the SWR on
> freqs other than 160 m.
>
> Whats up with that?

==========

Dear Stargazer,

Absolutely nothing up with it. ;o)

Bear in mind the most inaccurate of all so-called measuring instruments is the SWR meter. It is not even a meter.

It doesn't even measure SWR. How can it - there's no transmission line on which to measure anything !

It merely INDICATES whether the load on the transmitter IS in the 50 ohms ballpark or is NOT in the 50-ohms ballpark.

It is only necessary to know, and it is quite sufficient to be happy about, that all is satisfactory and in good working order while you are transmitting. It is indeed an essential instrument. But do not allow the misnomer to distort your imagination about what is actually happening.

A far more logical, descriptive title for the very misleading /confusing name of SWR meter, in this 21st Century is -

TLI = TRANSMITTER LOADING INDICATOR which I see signs of coming into use.

It will of course take some years before it is universally accepted and the greatly misleading misnomer disappears from instrument faces, handbooks, periodicals, newsgroups, and other forms of communications between guru's and radio amateurs such as radiowaves.

Regards, Reg, G4FGQ.

612. Re: Is a car top a good ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 23:28:10 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ao52eadbd2@paris.btinternet.com>
Source record: 133250

The equivalent circuit (a model, a part of the whole system) of a car body plus ground is a very short and very fat transmission line with a capacitance between the underside of the car and the ground surface.

Then, in series with the capacitance is the resistance of a slab of soil in series with the zero resistance of Mother Earth herself. The thickness of the slab is equal to the RF 'skin depth' in the soil.

The car body (the short, fat, single electrical conductor) does of course have a radiation resistance which becomes a part of the whole system.

The electrical network is completed by incorporating the antenna itself, loading coil, top-hat, tuner and stray capacitances from the antenna to car body and to ground surface - the ground surface soil resistance once more being taken into account.

It is all quite calculable and can be incorporated in a computer program to analyse the radiating performance and other charcteristics of short antennas mounted on vehicle roofs. Any competent engineer can do it.

The most difficult problem is due to the fact that vehicles don't stay still over different types of ground. ;o)

The real sadness is that arm-chair calculations take all the fun out of shoot-outs.

Reg, G4FGQ

========================
Regards from Reg G4FGQ
Free Radio Design Software
Go to http://www.g4fgq.com
========================

613. Re: Cushcraft MA5B Vs. TGM MQ-2 Which Is better?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 23:37:34 UTC
From: dplatt@radagast.org
Message-ID: <uqc3puh5p59ccf@corp.supernews.com>
Source record: 133252

>> No.. its 11 ft. It is the 5 band Hexbeam. Of the antennas you
>> mentioned it would be the most invisible.

>And even if the neighbors can see it, they probably won't recognize it
>as being an antenna.

"Hey, Charlie. I think that giant mutant daisy on your roof has lost
most of its petals... it's looking rather bare. Shouldn't you
fertilize it more often?"

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

614. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 23:39:47 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <id3cqu4t6uevvjfocivjhpbpv6nsglq24k@4ax.com>
Source record: 133253

On Thu, 10 Oct 2002 14:14:49 -0700, StarGazer <pti@capnet.com> wrote:

|How far off resonance do you have to be before using coax
|will significantly affect the antenna system performance.
|I'm still using a tuner to get a 1:1 SWR.

Go to

www.qsl.net/ac6la

and download TLDetails.exe.

Put in a load of R = 50, X = -75. This is an SWR of about 4:1.

Select your coax type from the dropdown list and put in the frequency
of interest and coax length and see everything you want to know.

|
|I have about 4:1 on the bottom of 80 m and tune it out with
|the tuner.
|
|Also.... For 30 m what would be the best off resonance
|antenna... A 40 m dipole, 80 m dipole or an Inverted-L for
|160 m.
|I swear I see a shallow null around 10 MHz with the Inv-L???

615. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-10 23:44:03 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ao53c3$5ll$1@helle.btinternet.com>
Source record: 133254

If you are getting 1-to-1 SWR then the system, including tuner and
transmission line, MUST be at resonance and there's nothing to worry about,
---
Reg, G4FGQ

616. Re: tower paint

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 03:15:28 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <3DA64240.A152C413@earthlink.net>
Source record: 133255

Brian Kelly wrote:
>
> Richard Clark <kb7qhc@attbi.com> wrote in message
news:<j40koug9scg58lm2j4jnq4eec198e3tcgd@4ax.com>...
> > On Thu, 19 Sep 2002 09:15:01 -0500 (CDT), richardharrison@webtv.net
> > (Richard Harrison) wrote:
> >
> > >brian Kelly, W3RV wrote:
> > >"The other (tower paint degradation) is mechanical abrasion caused by
> > >wind-borne particulate matter, i.e., a sandblasting effect."
> > >
> > >That is an interesting observation and I appreciate the revelation.
> > >
> > >Best regards, Richard Harrison, KB5WZI
> >
> >
> > Hi Richard,
> >
> > I would raise that one offering another consideration: destructive
> > flexing. If the paint can't stretch as much as what is painted,
> > delamination results.
> >
> > I can't say I have much to offer in that regard, but when I helped a
> > buddy replace a radomed collinear 10M antenna from the peak of his
> > tower, I was shocked by its appearance.
> >
> > The surface had a fine haze of broken fiberglass strands - none more
> > than a quarter inch in length. It had the appearance of peach fuzz
> > covering nearly the entire surface of the radome. The initial glance
> > at it caught my attention, with my hand exploring the surface before
> > my mind engaged. Luckily I didn't draw my hand along the surface as
> > the prickly sensation was immediate.
> >
> > The prospects of a mitt full of glass wasn't so worrying as finding
> > that same fuzz busted loose and air borne....
>
> Glad you brought this up because I had another example of the general
> problem right under my nose which didn't click with me.
>
> I was involved with moving a 224Mhz repeater. The antenna is a big,
> maybe 20 foot long commercial fiberglass stick which had been up for
> many years at some low elevation like 40 feet at the base. It was in
> really bad shape. The damage was exactly as you (QHC) describe, a sort
> of "peach fuzz" which could do a real number on your hands.

>
> Again the damage was progressively worse from the bottom up the stick
> which coincides with my experience with the Rohn 45 tower. I can't say
> I particularly noticed any damange which could have been attributed to
> flexing but I wasn't looking for it. Obviously makes sense that it
> could happen if the coating is too hard/inflexible.
>
> I sanded the stick and almost choked myself in the cloud of dust that
> billowed off the thing. I coated it with clear marine epoxy resin and
> it went back up. We'll see how long it lasts this time.
>
> The folks who engrave tombstones for instance do it by cutting a sheet
> rubber stencil which is laid over the face of the stone. Then they
> sandblast the stone. The sand etches the exposed stone but the sand
> simply bounces off the rubber. Maybe the solution is to apply a rubber
> coating on towers and sticks.
>
> . . . but then why were my 4el 20m and 3el 15/10 aluminum yagis just
> about as good as new after 30 years up and the tower had gotten
> pounded? . . .

Brian,

I've seen the fuzzing fiberglas scenario numerous times with embassy repeater antennas and with the Cushcraft R-5 I used for 12/17m in Africa. I think the cause is breakdown by UV. I note that the fiberglas boom I used for my satellite antennas is coated with a black compound said to be for protection from UV.

Dave K8MN

617. First Wire Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 03:18:16 UTC
From: Joshua Goldsmith <NOTjoshin@starband.net>
Message-ID: <iqrp9.3953$KE6.1812026456@twister1.starband.net>
Source record: 133256

Hi all,

Having recently upgraded to General, I decided that I should (learn about and) make my own antenna and just finished putting it up. (Especially since toy funds are low with a 13 month old running about the house.) Unforturnately, it isn't turning out as well as I had hoped. My goal was 1 antenna that would tune 10m through 80m and maybe even let me try out 160m.

The antenna is a 440' horizontal loop antenna using insulated solid conductor 12 gauge wire. Because my property is pretty thickly wooded (and sloped), 3 of the corners are trees. The corners of the antenna are about 35', 65', 30', and 18' up.

The antenna is fed with 100' of Radio Shack's "high quality" 300ohm twinlead. The feedline is terminated at either the 4:1 balun inside my MFJ-962C or a 1:1 balun and then fed to the coax inputs on the same tuner.

The feed point is around 20' above ground and I've tried to ensure that the twinlead is perpendicular to both the ground and the antenna.

I am unable to tune this antenna very well. On the two bands I'm most interested in; 80 and 20m, I can't seem to get it to tune better than 5:1.

Since I'm new at HF operation, here's how I've been trying to tune my antenna (hints/tips are appreciated):
1) Find clear frequency near where I want to transmit
2) Set Transmit and Antenna Dials to midpoint
3) Adjust Inductor dial for maximum noise
4) At low power (5 or 10w) transmit a 30s long dah
5) Adjust Trans & Antenna dials for lowest SWR
If that doesn't work well, I change the inductor setting and go back to step 4.

What may be a clue to the problem I'm having is that I barely hear a difference between the various inductor settings (usually only between max and min). I've taken the cover off the tuner, looked for burnt spots, pulled out my multimeter to look for bad connections, and tried cleaning the inductor switch.

(The Transmitter and Antenna dials do seem to have an effect, it is just the inductor dial that doesn't.)

Any thoughts as to what's wrong? I did borrow a QRP tuner (Z11) and it can tune to about 2:1 but I'd like to be able to use my full 100 watts.

The antenna is the best receiving antenna I've ever had but I didn't learn code to listen. :)

Thanks!

-Josh (Nuke the NOT to e-mail)

618. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 03:29:57 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA645B5.B14FEB72@ieee.org>
Source record: 133258

Dean Elwood wrote:
> Just one thing though, these capacitive "hats" that I keep hearing about -
> where do you get them, and how do you tune them exactly?

For an A-frame attic, the dipole with hats might look like:

```
+ +
/ \ / \
/ +---\-------------X-----------/---+ \
/ \ / \
+-------------+ +-------------+
```

Where X is the center of the dipole and the two triangles are made
out of hardware cloth which probably should be mounted on stand-
off insulators. Someone did this earlier and it worked like a
charm.
--
cheers, CAM http://www.qsl.net/w5dxp

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619. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 03:31:54 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <3DA6464A.CB457EE3@earthlink.net>
Source record: 133257

Brent wrote:
>
> Actually I was only going to use this for 160. As for the lmr400 thats what
> I have laying aroung I know abit overkill for this project. The tuner will
> be in the shack. Hopefully if my math is correct I shouldn't need it.

Brent,

I've been using the 160m coaxial inverted "L" for 160 for over a year now and am delighted with the performance. Remember to feed the shield and run the center conductor to ground. I found that I had to add about 3 feet to the antenna to achieve resonance at 1850. The antenna covers the entire band with under 2:1 SWR. Mine runs vertically for sixty feet and I have about 2500 feet of radials installed.

One additional hint: Where the antenna bends from vertical to horizontal, I used a heavy insulator which has one end fixed to the tower. The other end supports a solid brass pulley with a wheel diameter of about two inches. That keeps the cable from having a sharp radius at that point.

Dave Heil K8MN

620. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 03:34:31 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA646C7.22A138A2@ieee.org>
Source record: 133260

StarGazer wrote:
> How far off resonance do you have to be before using coax
> will significantly affect the antenna system performance.

It is a function of the matched line loss of the coax, the
frequency, the SWR, and how much loss one is willing to tolerate.
The ARRL Handbook and Antenna Book have the necessary charts
to answer your question.
--
cheers, CAM http://www.qsl.net/w5dxp

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621. Re: How come there are shallow nulls with dipoles on other freqs??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 03:36:57 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA64759.CBB6DA99@ieee.org>
Source record: 133263

StarGazer wrote:
> With my 160 m Inverted-L I see a minor null in the SWR on
> freqs other than 160 m.
>
> Whats up with that??

Assuming your inverted-L is 1/4 WL on 160m, you will obtain
additional resonances around 3/4WL, 5/4WL, 7/4WL, etc.
--
cheers, CAM http://www.qsl.net/w5dxp

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622. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 03:37:31 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <3DA6479B.E435BFE8@earthlink.net>
Source record: 133259

Brent wrote:
>
> > Where does the inner conductor of the antenna coax come into it ?>
>
> You short the center conductor to the shield of the coax on both ends.
>
> > Is it left floating, not connected to anything ?
> Nope.
>
> Hope that helps.

That is not correct, Brent. If memory serves, you need about 104 feet of coaxial cable for the first portion. The shield is fed and the center conductor is grounded. The far end of that portion is shorted. The remainder of the antenna is made up of another piece of coaxial cable which is shorted at both ends to simulate a "fat" wire. What you end up with is half of a double bazooka antenna which includes a 1/4 wave shorted stub.

Dave Heil K8MN

623. Re: How come there are shallow nulls with dipoles on other freqs??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 03:41:22 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA64862.6E8131B9@ieee.org>
Source record: 133262

Reg Edwards wrote:
> TLI = TRANSMITTER LOADING INDICATOR which I see signs of coming into use.

Just what the world needs - one more TLA.
--
cheers, CAM http://www.qsl.net/w5dxp

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624. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 03:42:41 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <3DA648D1.5BC608A@earthlink.net>
Source record: 133261

'Doc wrote:
>
> Brent,
> Why are you using coax for the antenna? Is it
> because you have more of it than you know what to
> do with, or because there's supposed to be some
> kind of advantage to it?
> 'Doc

The answer is bandwidth between 2:1 SWR points. My 160m coaxial inverted "L", constructed from N4XX's CQ magazine article of a year or so back covers the entire 200 KHz of the band at under 2:1 (actually more like 1.7:1) while my conventional 80m inverted "L" using a series capacitor has a 2:1 bandwidth of only about 100 KHz.

I don't use a coaxial inverted "L" on 80m because the band is 500 KHz and SWR would likely be excessive at the extremes. I use relays to switch padding caps in and out on the conventional inverted "L" (and I don't rely on it as my sole 80m antenna.

Dave Heil K8MN

625. Re: First Wire Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 03:47:19 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA649C7.AE0F314@ieee.org>
Source record: 133264

Joshua Goldsmith wrote:
> I am unable to tune this antenna very well. On the two bands I'm most
> interested in; 80 and 20m, I can't seem to get it to tune better than 5:1.

Changing the length of the feedline will probably tune it in on 20m.
For 80m you may need to change the length of the antenna. Borrow an
antenna analyzer like the MFJ259B and look for resonant frequencies.
--
cheers, CAM http://www.qsl.net/w5dxp

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626. Re: Is a car top a good ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 03:52:35 UTC
From: mike c <md_removeunderscores_cola@evenlink.com>
Message-ID: <MPG.1810150ee317e3089896fe@news.evenlink.com>
Source record: 133265

In article <3da5c3f2$0$1539$ba620e4c@news.skynet.be>,
on5mjREMOVE@skynet.be says...
> I have learned something tonight. Probably Golf is more class than Rabbit.
> Sorry for the mistake.
>
>
maybe, but for a mini-car driver in Germany, rabbit would be more
appropriate. golf is slow, minicar drivers are fast.
>

--
Best Regards,
Mike Colasono

627. Re: Best noise canceller : MFJ or Timewave ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 04:02:03 UTC
From: Marvin Kroll <merkinp@worldnet.att.net>
Message-ID: <%2sp9.173$1P1.9921@bgtnsc05-news.ops.worldnet.att.net>
Source record: 133266

Can you refer me to the QST issue with the DeMaw article? MK

"Rick Littlefield" <k1bqt@aol.com> wrote in message
news:20021009064112.15783.00000263@mb-dd.aol.com...
> I understand the early revisions of the MFJ unit may have had some
problems,
> but later ones are quite good. I know they invested quite a lot of
engineering
> time to ensure that it would work well. As far as I know, there's no
connection
> between MFJ and Timewave. Didn't most of these units spin out of Doug
DeMaw's
> QST article?
>
> Rick K1BQT

628. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 04:03:49 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ao5ij5$5pj$0@208.207.71.153>
Source record: 133267

Ken N4VSD wrote:
>
> Hello,
>
> A dipole is the way to go... Just be sure to cut it a little longer than
> your preferred operating frequency. It's easier to prune and tune than
> solder and curse.

I like to leave a dipole a little long. If you're using a tuner then
you will add a little capacity to tune it instead of inductance. Seems a
bit easier to tune. Even without pruning.

Dick

629. Re: Want a Good Tuner??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 04:06:26 UTC
From: mike c <md_removeunderscores_cola@evenlink.com>
Message-ID: <MPG.1810184a625d2eb69896ff@news.evenlink.com>
Source record: 133268

In article <9878-3D92FCB2-154@storefull-
2311.public.lawson.webtv.net>, richardharrison@webtv.net says...
> Mike Colasono wrote:
> "Oh, conjugate matches? Complex conjugates?"
>
> Sure, as Walter Maxwell, W2DU has always said, to get the most from a
> transmitter, the load must be the conjugate of the transmitter`s
> internal impedance. Also, in an ideal system, the impedance looking in
> opposite directions anywhere you might break the transmission system are
> conjugates of each other.
>
> See: King, Mimno, and Wing, "Transmission Lines, Antennas, and
> Waveguides",page 43. All three authors were Ph.D.`s at Harvard in 1945
> when this was published by McGraw-Hill.
>
> Best regards, Richard Harrison, KB5WZI

i knew that. thanks for the ref.
>
>

--
Best Regards,
Mike Colasono

630. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 04:16:52 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ao5jbk$7b3$0@208.207.71.153>
Source record: 133169

Richard Harrison wrote:
>
> Doc, W5LZ wrote:
> "(seriously doubt if bandwidth is affected at all)."
>
> This was in response to using a fat antenna conductor versus a thin
> conductor.
>
> Experience from the earliest days of radio contradicts the idea that fat
> versus thin makes no difference.

Isn't it the length to diameter ratio that matters? In an 80 meter dipole it wouldn't perceptibly matter whether the wire used is 24 gauge or #6. On the other hand, use of a 36 inch cage dipole would definitely broaden the bandwidth.

Dick

631. Re: Is a car top a good ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 04:44:28 UTC
From: Bob Nielsen <nielsen@remove_this.oz.net>
Message-ID: <ao5kvcaen0@216.39.144.81>
Source record: 133170

On Thu, 10 Oct 2002 23:52:35 -0400, mike c wrote:
> In article <3da5c3f2$0$1539$ba620e4c@news.skynet.be>,
> on5mjREMOVE@skynet.be says...
>> I have learned something tonight. Probably Golf is more class than Rabbit.
>> Sorry for the mistake.
>>
>>
> maybe, but for a mini-car driver in Germany, rabbit would be more
> appropriate. golf is slow, minicar drivers are fast.
>>
>

Golf in German translates to Gulf in English.

632. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 07:52:08 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA68328.2E49260D@cwis.net>
Source record: 133171

Richard,
What you are talking about is the "k" in the formula
(492 X k) / f = L. If you will try a few different 'k's
in that formula you will find out that there isn't much
difference until you get to a quite sizable 'k' in relation
to the frequency in use. On 160 meters, the conductor would
be about the size of an average rural water storage tank.
But, at 400 Mhz, a conductor about the size of a Bic pen would
work great.
'Doc

633. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 07:54:08 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA683A0.CA2D92F7@cwis.net>
Source record: 133172

Dave,
All I can say is, horse hockey!
'Doc

634. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 08:57:01 UTC
From: Dean Elwood <dean@legallyspeaking.co.uk>
Message-ID: <ao63osnid1@venus.btinternet.com>
Source record: 133173

Thanks again for your help. I'll start experimenting at the weekend.

Ultimately, I may have to have the dipole a little short and maybe try loading it in the middle or at the ends. Alternatively, I liked the idea of putting the whole thing into a square. I should be able to fit that in at full length.

D

"Dick Carroll" <dixie@townsqr.com> wrote in message news:ao5ij5$5pj$0@208.207.71.153...
>
>
> Ken N4VSD wrote:
> >
> > Hello,
> >
> > A dipole is the way to go... Just be sure to cut it a little longer than
> > your preferred operating frequency. It's easier to prune and tune than
> > solder and curse.
>
>
> I like to leave a dipole a little long. If you're using a tuner then
> you will add a little capacity to tune it instead of inductance. Seems a
> bit easier to tune. Even without pruning.
>
> Dick

635. Re: First Wire Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 11:11:21 UTC
From: KC1DI <elbc2@gwi.net>
Message-ID: <n4cdqusei086s4trhb2glt2ntkmvpi748s@4ax.com>
Source record: 133174

On Fri, 11 Oct 2002 03:18:16 GMT, "Joshua Goldsmith"
<NOTjoshin@starband.net> wrote:

>Hi all,
>
>Having recently upgraded to General, I decided that I should (learn about
>and) make my own antenna and just finished putting it up. (Especially since
>toy funds are low with a 13 month old running about the house.)
>Unforturnately, it isn't turning out as well as I had hoped. My goal was 1
>antenna that would tune 10m through 80m and maybe even let me try out 160m.
>
>The antenna is a 440' horizontal loop antenna using insulated solid
>conductor 12 gauge wire. Because my property is pretty thickly wooded (and
>sloped), 3 of the corners are trees. The corners of the antenna are about
>35', 65', 30', and 18' up.
>
>The antenna is fed with 100' of Radio Shack's "high quality" 300ohm
>twinlead. The feedline is terminated at either the 4:1 balun inside my
>MFJ-962C or a 1:1 balun and then fed to the coax inputs on the same tuner.
>
>The feed point is around 20' above ground and I've tried to ensure that the
>twinlead is perpendicular to both the ground and the antenna.
>
>I am unable to tune this antenna very well. On the two bands I'm most
>interested in; 80 and 20m, I can't seem to get it to tune better than 5:1.
>
>Since I'm new at HF operation, here's how I've been trying to tune my
>antenna (hints/tips are appreciated):
>1) Find clear frequency near where I want to transmit
>2) Set Transmit and Antenna Dials to midpoint
>3) Adjust Inductor dial for maximum noise
>4) At low power (5 or 10w) transmit a 30s long dah
>5) Adjust Trans & Antenna dials for lowest SWR
>If that doesn't work well, I change the inductor setting and go back to step
>4.
>
>What may be a clue to the problem I'm having is that I barely hear a
>difference between the various inductor settings (usually only between max
>and min). I've taken the cover off the tuner, looked for burnt spots, pulled
>out my multimeter to look for bad connections, and tried cleaning the
>inductor switch.
>
>(The Transmitter and Antenna dials do seem to have an effect, it is just the
>inductor dial that doesn't.)

>
>Any thoughts as to what's wrong? I did borrow a QRP tuner (Z11) and it can
>tune to about 2:1 but I'd like to be able to use my full 100 watts.
>
>The antenna is the best receiving antenna I've ever had but I didn't learn
>code to listen. :)
>
>Thanks!
>
>-Josh (Nuke the NOT to e-mail)
>

Hi Josh:
Sorry your having problems. I have a very similar setup for my antenna here and it works great with an MFJ 901b tuner. So yours should work also.. When you use the balun in the tuner did you remember to connect the jumper wire to the balun on the back of the tuner.. I believe that most mfj tuners require a jumper to active the internal balun. You did not mention how the antenna is tuning on the other bands. if it is tuning on other bands ok , then I would try lengthening or shortening the feed line a few feet at a time until the bands you want are tunable.. Mine is fed with about 25 ft. of 300 ohm line and works all band no problem.
don't give up keep trying.. it will work !
73 Dave Kc1di

636. Measuring voltage, current and phase at VLF Ae feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 13:41:20 UTC
From: neoklis@users.sourceforge.net
Message-ID: <cdcba458.0210110541.3cfbde@posting.google.com>
Source record: 133175

Hi!

A fellow ham's son is studying Electrical Engineering and
he was given as a project, the measurement of voltage, current
and phase angle at the feedpoint of a vlf antenna, with
digital indication. As this subject is somewhat off-topic
to his curriculum, he is looking for some info on the subject
to get him started.

I searched the net but seems there is little design info on
this subject. Me and my friend would be greatful for any
pointers to any material on this subject.

My thanks in advance

73 Neoklis 5B4AZ

637. Re: First Wire Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 13:54:39 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <zKAp9.52991$VQ2.11910646@twister.midsouth.rr.com>
Source record: 133176

Hello,

I would suggest checking your feedline for any breaks or shorts and try changing it's length a little (80 and 20 are harmonically related and changing the length may help). Is the feedline near any metal objects? Check the connections on the tuner again... On some MFJ tuners you may find the binding posts are not making good contact. What type of ground do you have connected to the tuner? I would suggest borrowing another manual tuner to see if you get the same results.

Ken

"Joshua Goldsmith" <NOTjoshin@starband.net> wrote in message news:iqrp9.3953$KE6.1812026456@twister1.starband.net...
> Hi all,
>
> Having recently upgraded to General, I decided that I should (learn about
> and) make my own antenna and just finished putting it up. (Especially since
> toy funds are low with a 13 month old running about the house.)
> Unforturnately, it isn't turning out as well as I had hoped. My goal was 1
> antenna that would tune 10m through 80m and maybe even let me try out 160m.
>
> The antenna is a 440' horizontal loop antenna using insulated solid
> conductor 12 gauge wire. Because my property is pretty thickly wooded (and
> sloped), 3 of the corners are trees. The corners of the antenna are about
> 35', 65', 30', and 18' up.
>
> The antenna is fed with 100' of Radio Shack's "high quality" 300ohm
> twinlead. The feedline is terminated at either the 4:1 balun inside my
> MFJ-962C or a 1:1 balun and then fed to the coax inputs on the same tuner.
>
> The feed point is around 20' above ground and I've tried to ensure that the
> twinlead is perpendicular to both the ground and the antenna.
>
> I am unable to tune this antenna very well. On the two bands I'm most
> interested in; 80 and 20m, I can't seem to get it to tune better than 5:1.
>
> Since I'm new at HF operation, here's how I've been trying to tune my
> antenna (hints/tips are appreciated):
> 1) Find clear frequency near where I want to transmit
> 2) Set Transmit and Antenna Dials to midpoint
> 3) Adjust Inductor dial for maximum noise

> 4) At low power (5 or 10w) transmit a 30s long dah
> 5) Adjust Trans & Antenna dials for lowest SWR
> If that doesn't work well, I change the inductor setting and go back to
step
> 4.
>
> What may be a clue to the problem I'm having is that I barely hear a
> difference between the various inductor settings (usually only between max
> and min). I've taken the cover off the tuner, looked for burnt spots,
pulled
> out my multimeter to look for bad connections, and tried cleaning the
> inductor switch.
>
> (The Transmitter and Antenna dials do seem to have an effect, it is just
the
> inductor dial that doesn't.)
>
> Any thoughts as to what's wrong? I did borrow a QRP tuner (Z11) and it can
> tune to about 2:1 but I'd like to be able to use my full 100 watts.
>
> The antenna is the best receiving antenna I've ever had but I didn't learn
> code to listen. :)
>
> Thanks!
>
> -Josh (Nuke the NOT to e-mail)
>
>

638. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 14:11:42 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <ao6m70$iv7he$1@ID-52642.news.dfncis.de>
Source record: 133177

Instead of remarks like "horse hockey", perhaps David or someone else could elaborate a bit on the theory behind the increased bandwidth?

The original information on the "double bazooka" turned out to be terribly flawed and the improved bandwidth either didn't exist, or was the result of identifiable losses.

Would someone please comment on the actual construction of the antenna, and the supposed mechanism of the increased bandwidth. I have a spare cross boom on my tower that I would like to put a 160 antenna on, and this might be an interesting experiment. I don't want to go to the bother, however, chasing a mirage.

Thanks for any details and analysis you might be able to provide.

...hasan, N0AN

"Dave Heil" <k8mn@earthlink.net> wrote in message
news:3DA648D1.5BC608A@earthlink.net...
>
> The answer is bandwidth between 2:1 SWR points. My 160m coaxial
> inverted "L", constructed from N4XX's CQ magazine article of a year or
> so back covers the entire 200 KHz of the band at under 2:1 (actually
> more like 1.7:1) while my conventional 80m inverted "L" using a series
> capacitor has a 2:1 bandwidth of only about 100 KHz.
>
> Dave Heil K8MN

639. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 14:35:42 UTC
From: richardharrison@webtv.net
Message-ID: <29791-3DA6E1BE-398@storefull-2315.public.lawson.webtv.net>
Source record: 133178

Dick Carroll wrote:
"Isn`t it the length to diameter ratio that matters?"

Sure. With r-f, things are a function of frequency and expressed in terms of wavelength. All is scalable. A "lomg wire antenna" is long in terms of wavelength regardless of its length in meters.

" Fat wire" or "thin wire" is also in terms of frequency or wavelength. Either expression is OK as they are reciprocals. A fat wire is a much smaller fraction of wavelength than is a long wire antenna but the principle is the same.

A "savvy crowd" understands "long wire antenna" and "fat antenna wire".

A large (in terms of wavelength) cross section conductor antenna wire lowers Q.

"A fat wire has lower Q" is more succinct.

An antenna has a Zo. Like a transmission line, its value is sq. rt. of L/C. This is identical to the reciprocal of (vC), where v is the wave velocity and C is the capacitance per meter.

Zo of an antenna wire varies inversely with its capacitance. A fatter wire lowers Zo.

X/R is the antenna Q. A large antenna conductor cross section increases antenna bandwidth.

The change from small to large is continuous. How much Q it takes to be significant depends on your requirements.

Best regards, Richard Harrison, KB5WZI

640. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 14:46:40 UTC
From: Sparks W4EAS <sparksw4eas@mindspring.com>
Message-ID: <3DA6E450.244F@mindspring.com>
Source record: 133179

Gheeeezzzzz Folks.... When is everyone going to learn.. Put it up, Experement, Play, Forget all the fancy modeling stuff unless THAT is your lifes desire..... To set behind a desk, play design, and spend GREAT amounts of time on the news groups picking every thing apart! I have more fun on my 10 acres "Playing" with real case antenni. Some work GREAT, Some not so GREAT. Have a GREAT weekend folks. 73 Sparks W4EAS

641. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 14:55:33 UTC
From: sjbeyers@trianglenet.net
Message-ID: <72befaab.0210110655.53c4f8a7@posting.google.com>
Source record: 133180

StarGazer <pti@capnet.com> wrote in message news:<3DA5EDC9.A6841B16@capnet.com>...
> How far off resonance do you have to be before using coax
> will significantly affect the antenna system performance.
> I'm still using a tuner to get a 1:1 SWR.
>
> I have about 4:1 on the bottom of 80 m and tune it out with
> the tuner.
>
> Also.... For 30 m what would be the best off resonance
> antenna... A 40 m dipole, 80 m dipole or an Inverted-L for
> 160 m.
> I swear I see a shallow null around 10 MHz with the Inv-L???

The replies to this post that I have read seem to assume that a tuner in the shack can change the SWR on the feedline between the tuner and the antenna. Not so. It can only change the SWR on the piece of coax between the tuner and the rig. If it is desired to change the SWR on the feedline between the antenna and the shack, the tuner must be located at the antenna base or terminals.

Steve W9HJW

642. Re: Best noise canceller : MFJ or Timewave ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 15:02:48 UTC
From: SeeSignature@below.com
Message-ID: <3da6e6cc.165549111@news.ga.comcast.giganews.com>
Source record: 133181

Probably "spun out of" the 1930's technology that provided this type
of noise cancellation feature in the BC312 (or was it the BC-342)
receivers. I operated some of these in the early '50's in the Air
Force, and was impressed with this feature that never (back then) made
it into ham gear.

Jerry W4UK

On Fri, 11 Oct 2002 04:02:03 GMT, "Marvin Kroll"
<merkinp@worldnet.att.net> wrote:

>Can you refer me to the QST issue with the DeMaw article? MK
>
>"Rick Littlefield" <k1bqt@aol.com> wrote in message
>news:20021009064112.15783.00000263@mb-dd.aol.com...
>> I understand the early revisions of the MFJ unit may have had some
>problems,
>> but later ones are quite good. I know they invested quite a lot of
>engineering
>> time to ensure that it would work well. As far as I know, there's no
>connection
>> between MFJ and Timewave. Didn't most of these units spin out of Doug
>DeMaw's
>> QST article?
>>
>> Rick K1BQT
>
>

643. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 15:31:18 UTC
From: richardharrison@webtv.net
Message-ID: <17689-3DA6EEC6-368@storefull-2313.public.lawson.webtv.net>
Source record: 133183

I wrote:
"How much Q it takes to be significant depends on your requirements."

For telegraph, baud rate, the reciprocal of the shortest telegraphic element, increases the required bandwidth of the radiotelegraph system. See Laport`s "Radio Antenna Engineering", page 37. At low frequencies, antenna bandwidth becomes a limiting factor. Ed Laport notes that enough bandwidth is needed to avoid distortion and the antenna must be tuned to the right frequency to get the signal through the passband.

Ed calculates that Telex transmitted on a 40-KHz carrier needs an antenna Q of no more than 235. In fact, he says that is the maximum Q for the whole system.

On page 38, Laport says: "One method of increasing bandwidth is to use an antenna of very large cross section. A cage or tower is more effective in this respect than a single thin wire."

Laport is considering 40 KHz. At 4 MHz, size in terms of wavelength is divided by 100.

Best regards, Richard Harrison, KB5WZI

644. How high to mount R7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 15:42:04 UTC
From: rtripi@world.std.com
Message-ID: <H3tqA5.8pE@world.std.com>
Source record: 133182

I have a cushcraft R7 that I want to use, but I'm not sure if it should be a few feet above the ground or about 20 feet up (so it is above the roof). I am looking for where people have mounted theirs and how they found they worked.

73s
Bob N1KFV
--
Bob Tripi

645. Re: How high to mount R7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 16:16:09 UTC
From: Henrik <henrik>
Message-ID: <3da6f944$0$18581$edfadb0f@dspool01.news.tele.dk>
Source record: 133184

"bob c tripi" <rtripi@world.std.com> wrote in message
news:H3tqA5.8pE@world.std.com...
> I have a cushcraft R7 that I want to use, but I'm not sure if it should be
a few feet above the ground or about 20 feet up (so it is above the roof). I
am looking for where people have mounted theirs and how they found they
worked.
>
> 73s
> Bob N1KFV
> --
> Bob Tripi

Well, my 5 cents worth is, that with this and most other antennas, the
higher and free of obstructions, the better.
It has a quite flat radiation pattern, and the antenna is easily detuned by
near by obstacles....so it performs best with an open view to the horizon.
When you make adjustments to length of the sections for each band near the
ground to tune it for best SWR, you will also see that it has changed when
you move it up in position.
When I had mine up above the roof, it worked fine fine, but could not help
being afraid for a hit during thunder storms....but luckily nothing of that
sort ever happened!
I find it a great antenna, and so nice in use as you do not need a tuner!

I even used mine on 80m (with a tuner), and as I remember, Cushcraft replied
to me, that up to 100W on 80m was OK.

H.

646. Antena tuning

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 16:49:54 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92A46F3B0782Bmichalkunyahoocom@128.233.3.7>
Source record: 133185

Hello,

Could anybody explain to me what is antena tuning and what dummy loads are used for?

Regards,

647. Re: Measuring voltage, current and phase at VLF Ae feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 16:55:20 UTC
From: richardharrison@webtv.net
Message-ID: <15147-3DA70278-328@storefull-2314.public.lawson.webtv.net>
Source record: 133188

Neoklis wrote:
"---given as a project, the measurement of voltage, current, and phase angle at the feedpoint of a VLF antenna."

An oscilloscope?

VLF measurements are similar to those at medium wave or HF and the same instruments are usual.

Manuals for phase and current monitors such as the old RCA WM-30A and its successors may be helpful.

John E. Cunningham was a principal at the Cleveland Institute of Radio Engineering and they offered correspondence courses in broadcast radio that you often saw advertised in popular radio magazines. John`s face was pictured in many ads.

An operator at KTHT where I worked for about 10 years, took the course and sold his directional design and other services to a number of stations. He is now SK having accidentally electrocuted himself at KVOO in Tulsa.

I never took that course, but John E. Cunningham wrote a book, "The Complete Broadcast Antenna Book", which I highly recommend for its directional antenna chapters if you can`t find an old Cleveland Institute correspondence course.

Another must have is Ed Laport`s "Radio Antenna Engineering" which begins with Low-Frequency Antennas in Chapter 1, and thence continues with Medium-Frequency Broadcast Antennas in Chapter 2, and Chapter 3, High-Frequency Antennas, etc. .

Terman`s "Radio Engineering" is priceless.

Best regards, Richard Harrison, KB5WZI

648. Re: Antena tuning

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 17:12:28 UTC
From: KA9CAR <nospam@nospam.usa>
Message-ID: <ao70jm$2fnc$1@news1.tribune.com>
Source record: 133186

When using a resonant antenna, antenna tuning is the process of adjusting the antenna to be resonant at the frequency of interest, and adjusting the matching device from the antenna to feed line so that the impedance of the antenna is close to the impedance of the feed line.

When using a Non resonant antenna, antenna tuning usually refers to the adjustment of the antenna matching unit to provide the proper impedance to the radio.

When using a TUBE type radio with a (limited range) matching section in the radio, you often need a reference to tune into. A dummy load provides that reference.

When testing any radio, a dummy load provides a reasonable non reactive match to the radio for testing. It also radiates far less than an antenna, so you create less interference to other users while testing.

KA9CAR

Michalkun <no.spam@nospam.com> wrote in message
news:Xns92A46F3B0782Bmichalkunyahoocom@128.233.3.7...
> Hello,
>
> Could anybody explain to me what is antena tuning and what dummy loads are
> used for?
>
> Regards,

649. Re: Antena tuning

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 17:12:33 UTC
From: jgboyles@aol.com
Message-ID: <20021011131233.20862.00000861@mb-mo.aol.com>
Source record: 133187

>Could anybody explain to me what is antena tuning and what dummy loads are
>used for?

In general antenna tuning refers to adjusting various components of your
antenna system, to make your antenna system work as well as possible.

In general a dummy load is a 50 ohm non reactive resistor capable of
disappating large amounts of power. It is connected to the output of your
transmitter, so the transmitter can be checked at full power. It can be
connected to the end of your transmission line in place of the antenna for a
full power test of the transmitter+transmission line. Since all of your rf is
turned into heat you will radiate very little signal, and won't interfer with
other stations while testing.
73 Gary N4AST

650. Anyone direct bury RG-213 coax??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 17:36:16 UTC
From: StarGazer <pti@capnet.com>
Message-ID: <3DA70C10.81196658@capnet.com>
Source record: 133190

It says right on the covering 'direct burial'
Anyone actually direct bury RG-213 and have no problems?

651. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 17:46:00 UTC
From: Brent <brent316@yahoo.com>
Message-ID: <s7Ep9.51534$aU3.3036724@typhoon.kc.rr.com>
Source record: 133189

Hasan,

Here is the info that I found on the antenna I'm going to build. Hope it helps.

-Brent

From a good old google search.
From: Merv Stump (W2FOE@worldnet.att.net@postoffice.worldnet.att.net)
Subject: Re: 160 meter "inverted L"
View: Complete Thread (2 articles)
Original Format
Newsgroups: rec.radio.amateur.antenna
Date: 1996/07/23

Adam, in the early 80's Coleman Rowland, W4TWW published an excellent article in CQ on the Coaxial Inverted L For 160 meters. I have built the antenna and found it to be excellent. In theory the antenna is 1/4 wave long and is made of a 50 ohm coax section and a 300 ohm twin lead section. The coax section is an electrical quarter wave (246/FMHz times the velocity factor) and the 300 ohm twin lead makes up the rest of the quarter wave.

In reality through trial and error Coleman, found that the total length of the antenna should be 230/FMHz; and the coax section should be 162.5/FMHz. For 1.850 MHz this works out to 88 feet for the coax and 37 feet for the twin lead for a total length of 125 feet.

Short the center conductor to the shield of the coax, and connect this to the twin lead. The twin lead is shorted at this connection point and also shorted at the opposite end.

Feed it at the other end of the coax, using 50 ohm coax from your rig and connect the center conductor of the coax from your rig to the shield of the coax making the antenna; and the shield of the coax from the rig to the center conductor of the coax making the antenna. The center conductor of the antenna coax goes to ground with as many radials as possible.

Mount it as vertical as possible and pull the rest out as horizontal as possible. If you can go up 88 feet it's good to get the entire coaxial section vertical, but if you can't it will still work well.

The antenna is very broad and will be useable across the entire 160 meter band without a tuner. However, it is still fundamentally a vertical so you need as many radials as you can possibly get.

I later made a change to W4TWW's design which I would recommend. I simply replaced the 300 ohm twin lead with another piece of 50 ohm coax. It's much stronger and I saw no difference electrically.

Good luck, Merv

"hasan schiers" <schiers@netins.net> wrote in message news:ao6m70$iv7he$1@ID-52642.news.dfncis.de...
> Instead of remarks like "horse hockey", perhaps David or someone else could
> elaborate a bit on the theory behind the increased bandwidth?
>
> The original information on the "double bazooka" turned out to be terribly
> flawed and the improved bandwidth either didn't exist, or was the result of
> identifiable losses.
>
> Would someone please comment on the actual construction of the antenna, and
> the supposed mechanism of the increased bandwidth. I have a spare cross boom
> on my tower that I would like to put a 160 antenna on, and this might be an
> interesting experiment. I don't want to go to the bother, however, chasing a
> mirage.
>
> Thanks for any details and analysis you might be able to provide.
>
> ...hasan, N0AN
>
> "Dave Heil" <k8mn@earthlink.net> wrote in message
> news:3DA648D1.5BC608A@earthlink.net...
> >
> > The answer is bandwidth between 2:1 SWR points. My 160m coaxial
> > inverted "L", constructed from N4XX's CQ magazine article of a year or
> > so back covers the entire 200 KHz of the band at under 2:1 (actually
> > more like 1.7:1) while my conventional 80m inverted "L" using a series
> > capacitor has a 2:1 bandwidth of only about 100 KHz.
> >
> > Dave Heil K8MN
>
>

652. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 18:10:26 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <0j4equ87r07imo64ffhrgdoksmu1p803ks@4ax.com>
Source record: 133191

On Fri, 11 Oct 2002 10:31:18 -0500 (CDT), richardharrison@webtv.net
(Richard Harrison) wrote:

>I wrote:
>"How much Q it takes to be significant depends on your requirements."
>
>For telegraph, baud rate,

actually Baudot (baud is a corruption of the modem technology)

>the reciprocal of the shortest telegraphic
>element, increases the required bandwidth of the radiotelegraph system.
>See Laport`s "Radio Antenna Engineering", page 37. At low frequencies,
>antenna bandwidth becomes a limiting factor. Ed Laport notes that enough
>bandwidth is needed to avoid distortion and the antenna must be tuned to
>the right frequency to get the signal through the passband.
>
>Ed calculates that Telex transmitted on a 40-KHz carrier needs an
>antenna Q of no more than 235. In fact, he says that is the maximum Q
>for the whole system.

The rule of thumb is BW is roughly the reciprocal of 3 to 5 times the
pulse rate. For the Q offered above it appears that the Telex rate is
something less than 60Hz (57 for 3x).

>
>On page 38, Laport says: "One method of increasing bandwidth is to use
>an antenna of very large cross section. A cage or tower is more
>effective in this respect than a single thin wire."
>
>Laport is considering 40 KHz. At 4 MHz, size in terms of wavelength is
>divided by 100.
>
>Best regards, Richard Harrison, KB5WZI

73's
Richard Clark, KB7QHC

653. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 18:51:20 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ao76j7$r3h$1@helle.btinternet.com>
Source record: 133192

Richard, don't you think it would be a good idea to introduce a few numbers?
Then we can better see what it is we are talking about.

For example, what is the Q and bandwidth of a 1/2-wave 40m dipole
constructed from 18 gauge wire ?

And then, what is the Q and bandwidth of the same antenna constructed of 10
gauge wire ?

Reg G4FGQ.

654. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 19:07:53 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <3DA721B5.1654AC6D@earthlink.net>
Source record: 133193

'Doc wrote:
>
> Dave,
> All I can say is, horse hockey!
> 'Doc

Doc,

To your "horse hockey" statement I say, a lot of people don't believe what they don't understand. The obvious answer for you is: Don't build one.

Dave K8MN

655. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 20:40:26 UTC
From: richardharrison@webtv.net
Message-ID: <29792-3DA7373A-175@storefull-2315.public.lawson.webtv.net>
Source record: 133194

Richard Clark, KB7QHC wrote:
"The rule of thumb is BW is roughly the reciprocal of 3 to 5 times the pulse rate."

Yes. I didn`t include all of Laport`s explanation."
Ed wrote:
"To transmit the fundamental and third-harmonic sidefrequencies of a square pulse of dot frequency F, the bandwidth required is 7.4 F. Therefore the maximum permissible Q of the antenna is Qmax=f/7.4F.

It is desired to operate a standard five-unit start-stop teleprinter (not ASCII) 60-word speed of 23 dot cycles per second with equal mark and space intervals at 40 KHz, the Q of the antenna must not exceed 235.

Ed Laport was Chief Engineer of RCA International Division when he wrote "Radio Antenna Engineering" and was responsible for their radio technical operations other than NBC.
Ed associated with Brown, Lewis, and Epstein and published some of their work in his book which is not found elsewhere.

Best regards, Richard Harrison, KB5WZI

656. Re: Anyone direct bury RG-213 coax??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 21:17:01 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DA73F10.C7B798BC@tampabay.rr.com>
Source record: 133195

there is no problem as long as you dont have any underground critters
like gophers or such that could chew thru it or a lot of rocks in the
soil that could wear against the jacket during weater frost heaves and
such
as cheap as PVC pipe is i would just run it inside of it that way you
dont have to mess with it

StarGazer wrote:

> It says right on the covering 'direct burial'
> Anyone actually direct bury RG-213 and have no problems?

657. Re: How high to mount R7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 22:45:09 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DA7545D.51EFA82E@shaw.ca>
Source record: 133196

bob c tripi wrote:
>
> I have a cushcraft R7 that I want to use, but I'm not sure if it should be a few feet above the ground or about 20 feet up (so it is above the roof). I am looking for where people have mounted theirs and how they found they worked.
>
> 73s
> Bob N1KFV
> --
> Bob Tripi

I have mine just above the corner of the garage roof so that
the
element is clear of any nearby structures. The house is 25
feet
away, aluminum siding, but does not seem to cause any
problems.
I got the r7 cheap with a shorted trap which I quickly fixed
and
I am exceptionally pleased with it.
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

658. Re: Anyone direct bury RG-213 coax??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 23:09:18 UTC
From: Technomage <technomage-hawke@cox.net>
Message-ID: <pan.2002.10.11.16.09.19.149.24947@cox.net>
Source record: 133197

I have a huge gopher problem here and they chew right through the outer
casing of such coax. netter to bury incased in schedule 40 pvc pipe. then
you can thread through a new line should the old one have problems.

Technomage

In article <3DA70C10.81196658@capnet.com>, "StarGazer" <pti@capnet.com>
wrote:

> It says right on the covering 'direct burial' Anyone actually direct
> bury RG-213 and have no problems?

--
I will not be pushed, filed, stamped, indexed, briefed, debriefed, or numbered!
My life is my own - No. 6

659. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 23:13:34 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ao7luu$g1p$1@208.206.142.87>
Source record: 133198

Richard Harrison wrote:
>
> Dick Carroll wrote:
> "Isn`t it the length to diameter ratio that matters?"
>
> Sure. With r-f, things are a function of frequency and expressed in
> terms of wavelength. All is scalable. A "lomg wire antenna" is long in
> terms of wavelength regardless of its length in meters.
>
> " Fat wire" or "thin wire" is also in terms of frequency or wavelength.
> Either expression is OK as they are reciprocals. A fat wire is a much
> smaller fraction of wavelength than is a long wire antenna but the
> principle is the same.
>
> A "savvy crowd" understands "long wire antenna" and "fat antenna wire".
>

Yes, that's why I responded. Newcomers likely won't know that.

Dick

660. Re: License plate mount for Hamstick?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 23:23:14 UTC
From: Bob Walker <bowalk@attbi.com>
Message-ID: <C3Jp9.6623$rz6.593@sccrnsc02>
Source record: 133199

I use the license plate mount with a Hustler. I can remove the resonator and get a decent match on 6 but I do not use 6. I used a mag mount first on the center of the roof. My test results are HF but the license plate mount tests better. HOWEVER, I now have a very good ground. The mag mount is not the best ground. A Saturn has a plastic bumper offset about 2 inches in front of the frame. "We" (KN4HX) drilled 4 one inch holes for access to the frame for the lower 4 of the 6 mounting holes, used spacers and long bolts to bolt the mount directly to the frame. Then used the original pem nuts and screws of the plastic bumper to mount the license plate on top of the license plate mount. The license plate is now mounted with the original top two screws through the plate and the mount.
****
>Has anyone ever used one of these
> mounts? Does it require that you use metal screws on the license plate
> (I use plastic to prevent rust). Any idea how this will perform with
> the 6m hamstick compared to a magmounted 1/4 wave on the roof
> (actually, a 2m 5/8 wave, but used as a 1/4 wave on 6m)?

661. Re: A portable antenna for DXing ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 23:23:15 UTC
From: Bob Walker <bowalk@attbi.com>
Message-ID: <D3Jp9.7592$oq6.7610@sccrnsc01>
Source record: 133200

I have the MP-1 and the B&W apartment antenna. MP-1 is better. Both work.
I suggest you forget 40 with both of them if you are QRP. 100 W may be OK.
"Thierry" <lombryt@hotmail.com> wrote in message
news:db35a0c.0210041830.5f8061fd@posting.google.com...
> Hi,
>
> I am searching a portable antenna to use :
> - 1st, abroad, in hotels (on the balconery, through the window, in the
> field, etc)
> - 2d, also when there are too much QRM at home and I want to work in
> "emergency situations" in a quiet spot outdoor, as they are many in LX
> or south ON.
> and mainly on bands from (40m) 20m to 10m.
>
> There are not many portable antenna (commercial) on the place :
> - MP-1, http://www.superantennas.com/___Products/___products.html
> - B&W AP10, http://www.bwantennas.com/ap10a.htm
> - and last but not least the versatile buddipole,
> http://www.buddipole.com/
> NB. The buddipole exceed twice the price of the 2 first but here is
> not the question.
>
> What are your experience of these whips and &#65533; verticadipole &#65533; as I
> qualify the last one ?
> Some say the MP-1 is better than the AP-10 for Dxing
> As SWL (but soon licensed I hope) should it be more interesting for
> Dxing in the field or in hotels to buy a MP-1 or the latest, or both
> are useless (I don’t think so) and there are other solutions
> much more efficient, then which ones ?
>
> (I hope you will confirm the interest of the buddipole, it "looks"
> great !, and seems to use very nice material - it can for what it
> cost, $200-350+ according the accessories... -).
>
> 73
> Thierry
> ONL5183
> http://www.astrosurf.com/lombry/menu-qsl.htm

662. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-11 23:31:53 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ao7n19$js7$0@208.206.142.87>
Source record: 133201

Steve Beyers wrote:
>
> The replies to this post that I have read seem to assume that a tuner
> in the shack can change the SWR on the feedline between the tuner and
> the antenna. Not so. It can only change the SWR on the piece of coax
> between the tuner and the rig. If it is desired to change the SWR on
> the feedline between the antenna and the shack, the tuner must be
> located at the antenna base or terminals.

That's the point. At HF if you use anywhere near decent coaxial
feedline the loss will be insignificant when you place the tuner at the
line input instead of at the antenna.
It's done for operator convenience. I can work the entire band by
retuning the antenna *system* from the operating desk. The difference in
my radiated power from the antenna resonant frequency to either band
edge is trivial.
Ask Walt Maxwell. Or check his book "Reflections".

Dick

663. Re: How high to mount R7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 00:14:20 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DA76944.4A207669@shaw.ca>
Source record: 133202

"Edmund H. Ramm" wrote:
>
> In <3da6f944$0$18581$edfadb0f@dspool01.news.tele.dk> "Henrik" <henrik> writes:
>
> > [...]
> > I even used mine on 80m (with a tuner), and as I remember, Cushcraft
> > replied to me, that up to 100W on 80m was OK.
>
> While I don't need it for 80m (I use a Guywire Pyramid for this band),
> my R7 will sort of very inefficiently radiate (?) on Top Band after per-
> suaded to do so by means of a matchbox.
>
> No, no tuner, as it is impossible to tune, i.e. change the resonant
> frequency of, an antenna from the shack end unless this antenna happens
> to be of the motor driven High Sierra or Fluidmotion variety.
>
> 73, Eddi ._._.
> --
> email: ehramm AT dk3uz DOT shnet DOT org | AMPRNET: dk3uz@db0hht.ampr.org
> If replying to a Usenet article, please use above email address.
> Linux/m68k, the best U**x ever to hit an Atari!

My R7 shows a match in the lower 80M band. I should try it
as I only run low power (<10w) 99 percent of the time.
For 80M I normally use a trap vertical wire bent over at
about 30 ft.
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

664. Re: Butternut as a replacement for trap verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 01:54:35 UTC
From: chem_man <chem_man@iwon.com>
Message-ID: <010fqucvsc6bi3r1sa4tisr9d8h82cs2oe@4ax.com>
Source record: 133203

I replaced my 25 year old HyGain 14AVQ with a Butternut HF-9V two
years ago and have been extremely pleased with it's performance. It
is ground mounted, and I haven't put any radials down yet, but I am
able to work world-wide DX with it using only 100 watts! Soil is less
than great for conductivity in this area.

73's

wb0egr

On Sun, 22 Sep 2002 20:59:49 GMT, "Jim K" <jkeller@cox.net> wrote:

>I'm thinking of replacing my old but reliable ground mounted Hygain 14AVQ
>with a Butternut HF-9V. Just curious if anyone else has made a similar
>switch from a trap vertical such as a 14AVQ or a Hustler BTV to an HF-9V and
>if there was an improvement to performance. If you had an adequate ground
>system for the original, were any changes required for the Butternut.
>
>
>Thanks,
>Jim Keller
>WB6YxY
>
>Oceanside, Ca.
>

665. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 02:07:09 UTC
From: Bob Miller <bamiller@texas.net>
Message-ID: <kIOnPQQoCV=+tG57Okcwu2pHFBuD@4ax.com>
Source record: 133204

"Brent" <brent316@yahoo.com> wrote:

>Well I was told it helps a little with the bandwidth and should be stronger
>compared to standard copper wire. Also I happen to have about 200 hundred
>feet of the stuff.

Are you using the center conductor only, or the braid, or both?

Bob
k5qwg

>
>Brent
>
>
>"'Doc" <w5lz@cwis.net> wrote in message news:3DA39F81.C4DC7EB9@cwis.net...
>> Brent,
>> Why are you using coax for the antenna? Is it
>> because you have more of it than you know what to
>> do with, or because there's supposed to be some
>> kind of advantage to it?
>> 'Doc
>

666. Re: Helical Antenna Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 03:07:06 UTC
From: thompson@mindspring.com
Message-ID: <ao83it$nd3$1@slb7.atl.mindspring.net>
Source record: 133205

The best examples of Helical design were the beams manufactured by Kirk W8FYR in the 1970's. Kirk had 2 and 3 element 40 and 2 to 5 el 10 to 20 beams made from fiberglas. I had a 5 el Kirk on a 42 foot boom. Kirk used copper tape and followed the Helical design in most handbooks. There was a review in QST in 1971.

One Contester(W4YWX now N4PN) had a 5 el 20, 15, and 10 stacked on a 96 foot Aluminum tower.

Kirk became a SK and the antenna were made by Viking Instrument in W1 for awhile.

The 5el 20 was not as good as the 5 el KLM but much better than a 3 el mono bander.
I feel with the newer computer modeling for spacing the Kirk Helicodial Beam should approach the gain and front to back of a full size beam. They sure were light weight!

73 Dave K4JRB

667. Re: Measuring voltage, current and phase at VLF Ae feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 03:08:13 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA7921D.8F9336D6@ieee.org>
Source record: 133207

Neoklis wrote:
>
> Hi!
>
> A fellow ham's son is studying Electrical Engineering and
> he was given as a project, the measurement of voltage, current
> and phase angle at the feedpoint of a vlf antenna, with
> digital indication. As this subject is somewhat off-topic
> to his curriculum, he is looking for some info on the subject
> to get him started.
>
> I searched the net but seems there is little design info on
> this subject. Me and my friend would be greatful for any
> pointers to any material on this subject.

Take a look at the design of the voltage/current pickups for
an SWR meter. Instead of adding those phasors, change them
to digital signals and measure the time between the rising
edges.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

668. W9INN web page?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 03:10:30 UTC
From: thompson@mindspring.com
Message-ID: <ao83iu$nd3$2@slb7.atl.mindspring.net>
Source record: 133206

I know that several including AB7SL were building web pages for the W9INN line of wire antennas. Except for one in Japan I can't seem to find any as the AB7SL page is either gone or moved. Any ideas??

73 Dave K4JRB

669. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 04:57:10 UTC
From: jgboyles@aol.com
Message-ID: <20021012005710.28777.00000305@mb-bh.aol.com>
Source record: 133208

>The replies to this post that I have read seem to assume that a tuner
>in the shack can change the SWR on the feedline between the tuner and
>the antenna. Not so.

Not assuming that at all. A tuner in the shack is more convienent than at the antenna. The swr on the coax will be high at times with the tuner in the shack, but if the coax run is short, no problem.
> If it is desired to change the SWR on
>the feedline between the antenna and the shack, the tuner must be
>located at the antenna base or terminals.

True. But, if your goal is to radiate as much RF as possible with the least amount of hassle, put your tuner in the shack. If your goal is making sure your 50 ohm coax is terminated with 50 ohms put your tuner at the antenna terminals. The person listening to you at the other end of the radio circuit won't be able to discern a difference.
73 Gary N4AST

670. Re: License plate mount for Hamstick?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 04:58:23 UTC
From: Andy KC2SSB <vhfradiobuff@yahoo.com>
Message-ID: <huafqu87n6puknag192f9c46qqrimugft7@4ax.com>
Source record: 133209

Thanks for all the replies (well, thanks for the ones from the
non-trolls). I ordered the mount today and will let you guys know how
it works out.
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com

671. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 08:15:20 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <Q3aOSVDYo9p9EAln@ifwtech.co.uk>
Source record: 133210

Dick Carroll wrote:
> At HF if you use anywhere near decent coaxial
>feedline the loss will be insignificant when you place the tuner at the
>line input instead of at the antenna.
> It's done for operator convenience. I can work the entire band by
>retuning the antenna *system* from the operating desk. The difference in
>my radiated power from the antenna resonant frequency to either band
>edge is trivial.
>Ask Walt Maxwell. Or check his book "Reflections".

That's misquoting Maxwell by grossly over-simplifying. Where "at HF" - 10m or Top Band? How "decent" a feedline - how long, what's the matched loss? What's the SWR?

You can't skip over all these details, because they make all the difference between losses that are trivial, or losses that are large enough to put a 100W transmitter into the QRP league (and put a QRP transmitter into the noise).

Radio hams so often crave a single, simple answer - but here there isn't one. You have to work out what the numbers mean for your particular situation.

As K1TTT pointed out:

>>It depends.
>>
>>First what is its loss without the high swr. From that you can go to
>>tables or calculate the additional loss from the swr change.
>>
>>Next how high is the power is you are running. At high swr and
>>high power you may exceed the voltage rating of the cable.
>>
>>And last but not least, how much loss can you tolerate.

Until you've done all that, you don't actually *know* anything.

There's an Excel spreadsheet on my 'In Practice' web page (scroll down to March 2002) which allows you to input your own line type and length, and see graphs of line loss against frequency and SWR. The graphs update as you change your inputs.

Start by exploring the RG213 sheet, and then move on to the "generic lines" page.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)

Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

672. Re: Is a car top a good ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 10:37:33 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210120237.57799850@posting.google.com>
Source record: 133211

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<ao52eadbd2@paris.btinternet.com>...
> The equivalent circuit (a model, a part of the whole system) of a car body
> plus ground is a very short and very fat transmission line with a
> capacitance between the underside of the car and the ground surface.
>...

Hi,

Thanks Reg, but I always have had difficulties to "translate" these
models in practical data, usable in the field... even if I understand
well what you mean.
I am however happy to know we can modelize such complex structure
(car+ antenna) quite easily (for en engineer).

Practically I will proceed to several tests in the field, one placing
the antenna on my car, the other onto the ground, and I will see. Then
we could may be compare our both results, the theoretical ones and the
practical ones...

NB
Note about Gulf that some are like rabbits...with 130 or 150 PH they
easily exceed 220 km/h chrono, like mine, Hi !

Thanks for comments.

Thierry
ONL5183
http://www.astrosurf.com/lombry/menu-qsl.htm

> ---
> Reg, G4FGQ
> ---
> ========================
> Regards from Reg G4FGQ
> Free Radio Design Software
> Go to http://www.g4fgq.com
> ========================

673. Re: W9INN web page?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 11:17:39 UTC
From: Bob Miller <bamiller@texas.net>
Message-ID: <VwSoPQInLg8WR4YN1wHmU=jQ9MZA@4ax.com>
Source record: 133213

<thompson@mindspring.com> wrote:

>I know that several including AB7SL were building web pages for the W9INN
>line of wire antennas. Except for one in Japan I can't seem to find any as
>the AB7SL page is either gone or moved. Any ideas??
>
>73 Dave K4JRB
>

You can phone w9inn at 847-394-3414 or look for his little ad in the back of any
QST.

Bob
k5qwg

674. Re: W9INN web page?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 11:18:41 UTC
From: K4SQR@juno.com
Message-ID: <7c8be5b4.0210120318.12223a34@posting.google.com>
Source record: 133212

Dave;

Best bet is to send an SASE direct to Bill, W9INN for all of his
products.
AB7SL's site was a dis-service to W9INN Antennas by showing one (1)
model only. Lot of hype por nada. (For nothing)
Bill is a fine man and great to do business with.

73,
Jim, K4SQR

<thompson@mindspring.com> wrote in message news:<ao83iu$nd3$2@slb7.atl.mindspring.net>...
> I know that several including AB7SL were building web pages for the W9INN
> line of wire antennas. Except for one in Japan I can't seem to find any as
> the AB7SL page is either gone or moved. Any ideas??
>
> 73 Dave K4JRB

675. Antenna MADE for AO-40 !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 13:27:55 UTC
From: G Rollins <address@mysite.com>
Message-ID: <dq8gquoeibasfjqsndgsmrgebg01gi11vv@4ax.com>
Source record: 133214

I got tired of straining to hear signals from AO-40 with my barbecue grill dish and developed a circular polarized antenna that WORKS! I talked a manufacturer into producing small quantities of these specialized AO-40 antennas, and I am now making this antenna available to the amateur radio community. It is an offset parabolic and there is NO aperture blockage of the incoming signal. Plus, you can connect your downconverter directly to the feed with no signal line loss. Extremely efficient, this antennas design includes many advantages over other dishes. I have current stock and most orders ship the same or next business day. The 3' N3IYR dish outperforms any other commercially available AO-40 antenna. Please visit my web site and look my antenna over. Leave me a comment if you like, or ask any questions you might have.
TNX es 73!
Glenn N3IYR
http://www.n3iyr.com

676. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 14:25:29 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ao9bcp$u0q$0@208.206.142.96>
Source record: 133215

"Ian White, G3SEK" wrote:
>
> Dick Carroll wrote:
> > At HF if you use anywhere near decent coaxial
> >feedline the loss will be insignificant when you place the tuner at the
> >line input instead of at the antenna.
> > It's done for operator convenience. I can work the entire band by
> >retuning the antenna *system* from the operating desk. The difference in
> >my radiated power from the antenna resonant frequency to either band
> >edge is trivial.
> >Ask Walt Maxwell. Or check his book "Reflections".
>
> That's misquoting Maxwell by grossly over-simplifying. Where "at HF" -
> 10m or Top Band? How "decent" a feedline - how long, what's the matched
> loss? What's the SWR?
>

May I suggest that you go back and really read what Walt said? Looks to me like you actually missed the message.
To you any loss may be significant. To me it is not if it allows me to complete the desired communications and I know enough about my system to understand what loss I might be incurring and where to improve things if needed. Does it really matter if my coax loses 25 of my hundred watts? Depends. Most of the time it does not. I'd venture to day that over the years a great many hams have had such levels of loss without realizing it.

So what *does* it matter to a ham whether the feedline loss is one watt or 25 if he's running 100 watts? Actually none at all, except that some folks like to pick lots of nits. Seems to be a fixation of some engineers. 75 watts, or even 50, will be heard on the other end virtually always as well as the 100 if one was using a lossless line. But that doesn't stop the purists from discouaging new hams from ever getting on the air in the first place, where they could actually begin to learn how all this works. For many years I avoided using tuners because I didn't understand all this. Walt Maxwell took care of that.

> You can't skip over all these details, because they make all the
> difference between losses that are trivial, or losses that are large
> enough to put a 100W transmitter into the QRP league (and put a QRP
> transmitter into the noise).

Nonsense! If I'd had advisors like you when I was a 14 year old just beginning to try to get on the air, I'd have never even started. Fortunately I had practical minded folk like W0CTB who was licensed in

the 20's and grew up with radio to help me along. I guess this is just a different age, the age of perfectionism.
ANY coax of ANY length that any ham is likely to acquire and install won't cause such a drastic loss at ANY HF frequency with any load any ham is likely to try to use. We can write volumnous posts on the subject to make it all quite clear but no one would read them, and if a ham knows enough to ask that sort of question one can assume some minimal level of knowledge is present. I'm surprised you would attempt to make such a sensational case of it.

Such stuff is way beneath yor usually exemplary writings, Ian.

> Radio hams so often crave a single, simple answer - but here there isn't
> one. You have to work out what the numbers mean for your particular
> situation.

Ian, by that statement you demonstrate that you are in fact a purist and not a ham. If hams had to calculate exact feedline loss to get on the air there'd be damn few hams ever radiate a signal. If you wish to do so, fine. But don't try to tell me I have to know exactly what my feedline loss is, when I can be sure it's not grossly excessive by knowing what I'm using. Don't try to tell Walt Maxwell, either.

Would you suggest that the many times I and many others have huing a tempoprary dipole fed with whatever coax was at hand and just tuned it to good on-the-air success were just some sort of a fluke?

There's engineering practice and there's amateur practice. One can't say they SHOULD be different, just that most of the time they are. Unavoidably. Not many hams have the technical education to pursue their hobby as engineers, nor is there any realistic need for them to have, in order for them to have very satisfying success as active on-the-air hams. I think guys like you often lose your perspective over the years.

So Ian, you go right ahead and make it as complex a problem as you wish. The man asked a simple question, and I gave him a simple answer. Which was NOT incorrect.

Dick W0EX

677. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 15:22:36 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ao9ens$a53$0@208.206.142.96>
Source record: 133216

Another point in the form of a "what if". What if you find yourself in a situation where you really need to get an HF rig on the air. You have a rig and power for it, but no antenna nor feedline.

What to do? Wring your hands and wish for the Coax Fairy to pay you a visit? Not me. I'd be grabbing the 6 or 8 feet of lamp cord off every appliance I could get my hands on, striping the insulation off the ends of the wires and twisting them together, making sure none could short. Any way available to get the length needed to feed the dipole I make of whatever wire I can come up with - copper if I can find it, even steel fence wire if it's all that's available.
"Twisted pair" lamp cord was a common feedline in the early days. It still works just as well now, probably better because of better quality insulation.

No coax connector to screw it onto the rig? No problem, just jam one of the wires into the center pin receptacle with a toothpick or small piece of wood, whatever, and attach the other wire to the chassis however you can. Use your imagination.

And soon I'll be on the air radiating an effective if perhaps attenuated signal, not sitting scratching my head trying to figure out the next move. Because I know this will work. And there would be no way I could know what my feedline loss is.

And I probably wouldn't even notice if I had no tuner to use on it if I measured the dipole elements with any kind of care. I know that my "wingspread" fingertip-to-fingertip is near-exactly 6 feet, so from that I won't even need a rule or measuring device to make the dipole.

If people take all the engineerese *too* seriously, they wouldn't even give such an installation a thought. And they'll be off the air.

Dick

678. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 15:32:14 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <ehfgqu4jufludipr8sm03dfq6uhtf934dc@4ax.com>
Source record: 133217

On 12 Oct 2002 14:25:29 GMT, Dick Carroll <dixie@townsqr.com> wrote:

> ANY coax of ANY length that any ham is likely to acquire and install
>won't cause such a drastic loss at ANY HF frequency with any load any
>ham is likely to try to use.

Are you smoking wacky-tabaky?

As an example of the error in the above statement, consider a 80
dipole when operated on 40 meters. That antenna will have the feed
point impedance around R1900 J-2700 (Ref: NEC calculations) resulting
in a SWR at the feed point of about 119:1. If this antenna was feed
with 100 feet of RG-213 the additional loss attributable to SWR would
be over 7 dB. Maybe 7dB isn't considered drastic by your standards,
but most hams would feel it is.

Danny,
K6MHE

679. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 15:57:05 UTC
From: richardharrison@webtv.net
Message-ID: <29792-3DA84651-220@storefull-2315.public.lawson.webtv.net>
Source record: 133218

Reg, G4FGQ wrote:
"Don`t you think it would be a good idea to introduce a few numbers?"

Numbers may induce numbness. Doesn`t Reg have the programs that crank out the numbers effortlessly?

In "Radio-Electronic Transmission Fundamentals", B. Whitfield Griffith, Jr. gives a formula for average characteristic impedance of a dipole based on average space between the dipole wires and the diameter of the wires. Space between the dipole wires is called "S" and in the usual dipole is one-half the over-all length of the antenna. The diameter of the conductor is "d". The average "Zo" is :
Zo = 120(ln 4S / d -1) ohms.
Griffith calls the over-all length of the antenna "L", and this is equal to 2S.

Using the formula, Griffith gives a table of L/d vs. avg, Zo:
100 516 ohms
1000 792 ohms
10000 1070 ohms
100000 1342 ohms

Next, Griffith gives a formula for approximate dipole drivepoint impedance at first resonance using the average dipole Zo.

Approximately, the drivepoint resistance "R1" is given by:
R1 = 10ln Zo
where Zo is the average for the dipole.

Griffith also gives a table of first and second resonant lengths for three average dipole characteristic impedances:
500 ohms, 0.464 0.860
750 ohms, 0.474 0.924
1000 ohms, 0.484 0.950
The decimal fractions are in terms of wavelength. Smaller L/d produces a smaller average Zo. That is, a fatter wire produces a lower Zo, and a fatter wire produces a shorter antenna at resonance.

Griffith has an observation which may relate to broadbanding. He says current phase can shift from plus to minus in the antenna wire without magnitude ever becoming zero.

Terman says a doublet composed of two wires instead of one, lowers the reactive component of the antenna impedance. That implies a faster drop in reactance than in radiation resistance and thus a lower Q when replacing one wire with two in the doublet.

Best regards, Richard Harrison, KB5WZI

680. kenwoodts50

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 16:10:58 UTC
From: karamel <36.india.radio@wanadoo.fr>
Message-ID: <aoa6cv$5vh$1@wanadoo.fr>
Source record: 133085

A kenwood ts 50 which goes out 100w by moment if not 10w in warmly

681. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 17:07:29 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <ldLjINLRbFq9EAZp@ifwtech.co.uk>
Source record: 133069

Dick Carroll wrote:
> ANY coax of ANY length that any ham is likely to acquire and install
>won't cause such a drastic loss at ANY HF frequency with any load any
>ham is likely to try to use.

That just ain't so, so all the rest of that message (including the personal attacks) is worthless.

Take 30m (100ft) of RG213 - good, thick "low-loss" cable by HF standards. Matched loss is 0.2dB at 1.8MHz, rising to 1.0dB at 29MHz. Completely trivial, everyone agrees.

Increase the SWR to 2, and the extra loss due to the mismatch is 0.05-0.19dB across the same frequency range. Still trivial. *That* is what Maxwell was saying: if the SWR on your coax is already quite low, you don't need to sweat about getting it any closer to 1.0. Your line loss won't improve worth a darn.

But now increase the SWR to 20 - that's a feed impedance of only 1kohm, quite easily reached in a wire antenna that's way off resonance. Now the extra loss has risen to 1.5-4.1dB. You're still OK on 1.8MHz, but on 29MHz your total feeder loss is now over 5dB - that means 60% of your transmitted power is simply going to heat up the coax. Starting to worry yet?

If you try to operate a coax-fed wire antenna dead on its second harmonic, the mismatch loss at 29MHz can easily climb over 10dB - only 10% of your transmitter power reaches the antenna.

That's with good low-loss coax like RG213. If you try the same with RG58, you'll reach the same losses with a shorter length of coax, at a lower SWR, or at a lower frequency.

Also note that the SWRs I'm quoting are at the antenna. When the line losses start to rise, you see an optimistically low SWR in the shack.

>The man asked a simple question, and I gave him a simple answer.
>Which was NOT incorrect.

He'll get out fine at the edges of the band his antenna is designed for. That's not in dispute.

But he's also wondering about using the same coax-fed antenna on bands far away from its design frequency. If his tuner in the shack can match it, then for sure he'll get out and work people... but eventually he'll wonder why he doesn't get out as well as his friend in the next town... why stations calling CQ seem to go back to other people... why he has to

wait in pileups for DX that he really wants to work.

Eventually he'll be disappointed and he won't know why. The sad irony is, the more he cares about doing well in ham radio, the more disappointed and puzzled he will be.

That matters to me. I believe that we radio hams are *smart* people - we can handle a lot more than the dumbed-down half-truths that some people would feed us. They're selling us way short.

(FYI, I'm not an engineer of any kind. I learn some things about ham radio from engineers - they know stuff, and are worth listening to - but some of the most important parts of my ham radio education came from a hotel keeper, a variety of people who worked in shops/stores and offices, a pig farmer, a corn merchant, and a guy who left school at 16 and chopped meat for a living. Time and again, ham radio proves that if we're interested enough to *want* to find out about something, then we're also smart enough to handle it.)

Of course I don't expect everyone to calculate their feedline losses - there's no need. But I do believe that everyone who reads this can handle *two* simple facts about losses and SWR on coax:

1. If the SWR on your coax is already quite low, you don't need to sweat about getting it any closer to 1.0 (that's what Maxwell said).

2. But... if you make too many compromises with high SWR, long lengths and the quality of coax, losses can creep up on you.

The rest of the information is there, but only if you decide you need and want it. After all, it's a hobby.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

682. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 17:16:28 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ao9ldc$b6$0@208.207.71.132>
Source record: 133070

Dan Richardson wrote:
>
> On 12 Oct 2002 14:25:29 GMT, Dick Carroll <dixie@townsqr.com> wrote:
>
> > ANY coax of ANY length that any ham is likely to acquire and install
> >won't cause such a drastic loss at ANY HF frequency with any load any
> >ham is likely to try to use.
>
> Are you smoking wacky-tabaky?
>
> As an example of the error in the above statement, consider a 80
> dipole when operated on 40 meters. That antenna will have the feed
> point impedance around R1900 J-2700 (Ref: NEC calculations) resulting
> in a SWR at the feed point of about 119:1. If this antenna was feed
> with 100 feet of RG-213 the additional loss attributable to SWR would
> be over 7 dB. Maybe 7dB isn't considered drastic by your standards,
> but most hams would feel it is.

Noooooo, Danny I'm not smoking wacky or any other kind. If a fella who holds a ham radio license doesn't know better than to try to use a coax-fed 80 meter dipole on 40 then it's time he learned, the hard way if necessary. The easy way out is to just parallel a 40 meter dipole with the 80.

683. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 17:53:39 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ao9nj2$l4v$1@paris.btinternet.com>
Source record: 133071

The main reason MF and LF broadcasting station antennas were built fat and sturdy was to prevent them falling down in bad weather. This turned out to be minor virtue - almost un-noticed bandwidth slightly increased.

To find the difference in bandwidth between a 7 MHz half-wave dipole constructed of 18 AWG and another constructed of 10 AWG, download program DIPCAGE1. Just enter 1 wire and its diameter.

You can also calculate bandwidth of a folded dipole with wires near or far apart. You can go up to 3 or 4 feet in dipole diameter by using a cylindrical wire cage with any number of wires in the cage.

========================
Regards from Reg G4FGQ
Free Radio Design Software
Go to http://www.g4fgq.com
========================

684. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 18:06:46 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA864B6.40632A81@ieee.org>
Source record: 133072

Dick Carroll wrote:
> Noooooo, Danny I'm not smoking wacky or any other kind. If a fella who
> holds a ham radio license doesn't know better than to try to use a
> coax-fed 80 meter dipole on 40 then it's time he learned, the hard way
> if necessary. The easy way out is to just parallel a 40 meter dipole
> with the 80.

Or feed the 80m dipole with ladder-line and get 2+ dB of gain
on 40m from the near EDZ length. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

685. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 18:23:17 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <jupgquohpqnsl5cvhaupvukhfps1cqlqr5@4ax.com>
Source record: 133073

On 12 Oct 2002 17:16:28 GMT, Dick Carroll <dixie@townsqr.com> wrote:

>
>
>Dan Richardson wrote:
>>
>> On 12 Oct 2002 14:25:29 GMT, Dick Carroll <dixie@townsqr.com> wrote:
>>
>> > ANY coax of ANY length that any ham is likely to acquire and install
>> >won't cause such a drastic loss at ANY HF frequency with any load any
>> >ham is likely to try to use.
>>
>> Are you smoking wacky-tabaky?
>>
>> As an example of the error in the above statement, consider a 80
>> dipole when operated on 40 meters. That antenna will have the feed
>> point impedance around R1900 J-2700 (Ref: NEC calculations) resulting
>> in a SWR at the feed point of about 119:1. If this antenna was feed
>> with 100 feet of RG-213 the additional loss attributable to SWR would
>> be over 7 dB. Maybe 7dB isn't considered drastic by your standards,
>> but most hams would feel it is.
>
>
> Noooooooo, Danny I'm not smoking wacky or any other kind. If a fella who
>holds a ham radio license doesn't know better than to try to use a
>coax-fed 80 meter dipole on 40 then it's time he learned, the hard way
>if necessary. The easy way out is to just parallel a 40 meter dipole
>with the 80.

Beg your pardon, but you did say ANY length at ANY HF frequency at ANY
load. Didn't you?

I guess if isn't wacky then it must be juice. <g>

Danny

686. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 18:44:55 UTC
From: richardharrison@webtv.net
Message-ID: <16456-3DA86DA7-220@storefull-2317.public.lawson.webtv.net>
Source record: 133075

I wrote:
"Terman says a doublet composed of two wires instead of one lowers the reactive component of the antenna impedance."

The 14th edition of the ARRL Antenna book says on page 5-22:
"For an ordinary half-wave dipole, the approximate Q values vary from about 14 for a length / diameter ratio of 25,000 to about 8 for a ratio of 1,250.

Best regards, Richard Harrison, KB5WZI

687. Re: Measuring voltage, current and phase at VLF Ae feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 19:00:13 UTC
From: Jack Smith <jsmith@mnsinc.com>
Message-ID: <75sgqugg92oqasdtfoknodu49058iri45u@4ax.com>
Source record: 133074

On 11 Oct 2002 06:41:20 -0700, neoklis@users.sourceforge.net (Neoklis) wrote:

>Hi!
>
>A fellow ham's son is studying Electrical Engineering and
>he was given as a project, the measurement of voltage, current
>and phase angle at the feedpoint of a vlf antenna, with
>digital indication. As this subject is somewhat off-topic
>to his curriculum, he is looking for some info on the subject
>to get him started.
>
>I searched the net but seems there is little design info on
>this subject. Me and my friend would be greatful for any
>pointers to any material on this subject.
>
>My thanks in advance
>
>
>73 Neoklis 5B4AZ

Measure current with toroid sampler (current transformer)
Measure voltage with a resistive voltage divider
Measure phase by feeding current sample and voltage sample into a phase detector, such as the phase detector part of a PLL chip.

Lots of interesting work to make it accurate, but in concept this should work OK.

Jack K8ZOA

688. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 19:16:47 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <zy_p9.18928$ue4.1194875@bgtnsc04-news.ops.worldnet.att.net>
Source record: 133076

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:ao76j7$r3h$1@helle.btinternet.com...
> Richard, don't you think it would be a good idea to introduce a few
numbers?
> Then we can better see what it is we are talking about.
>
> For example, what is the Q and bandwidth of a 1/2-wave 40m dipole
> constructed from 18 gauge wire ?
>

Q is approximately 11.5

> And then, what is the Q and bandwidth of the same antenna constructed of
10
> gauge wire ?

Q is approximately 10.4

I would give you BW numbers but I'm not sure how you want to define it.

Regards,

Steve VE9SRB

689. Re: Is a car top a good ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 19:31:17 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3da8788e$0$214$ba620e4c@news.skynet.be>
Source record: 133077

Wow ! you don't fear radar traps, is it ?

Jacques - ON5MJ

690. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 19:31:43 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <zM_p9.18943$ue4.1195652@bgtnsc04-news.ops.worldnet.att.net>
Source record: 133078

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:29791-3DA6E1BE->

> X/R is the antenna Q. A large antenna conductor cross section increases
> antenna bandwidth.
>

Hi Richard.

X/R is only an approximation of antenna Q if the Q is large (X >> R). At frequencies near resonance this approximation fall apart rather quickly.

An easy way to approximate the antenna Q at resonance is from the 1/2 power SWR bandwidth. The 1/2 power point is an SWR of 5.828. In determining SWR for a Q calculation, you cannot use the feedline Zo. You must use the antenna's resonant resistance for the SWR calculation (SWR at resonance will equal 1.0). Knowing the 1/2 power SWR bandwidth (BW), Q is found from 2 / BW.

Regards,

Steve VE9SRB

691. Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 19:45:19 UTC
From: Scanstar Fan <Fred@Flinstone.net>
Message-ID: <fqugqu8matldgr9arqos65pthq0ubcshmr@4ax.com>
Source record: 133079

Things that sound too good to be true usually are but does anyone have any comments on this thing?

It's supposed to match almost any antenna on all bands with no adjustments.

Cool huh?

http://www.cw.or.kr/hamsack/matchall.htm

692. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 20:33:44 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoa0v8$357$0@208.207.71.132>
Source record: 133080

Dan Richardson wrote:

> >
> > Noooooooo, Danny I'm not smoking wacky or any other kind. If a fella who
> >holds a ham radio license doesn't know better than to try to use a
> >coax-fed 80 meter dipole on 40 then it's time he learned, the hard way
> >if necessary. The easy way out is to just parallel a 40 meter dipole
> >with the 80.
>
> Beg your pardon, but you did say ANY length at ANY HF frequency at ANY
> load. Didn't you?
>

Read it again, Dan. I said any length a ham was LIKELY to use. If he's
so ignorant as to be likely use a length so far out of range, that's a
defect he'll have to learn to correct, isn't it? Ham are supposed to
learn enough to know *something* about the subject, tho that seems to be
in question nowdays.

693. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 21:11:02 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DA88FCF.6689B733@shaw.ca>
Source record: 133081

Scanstar Fan wrote:
>
> Things that sound too good to be true usually are but does anyone have
> any comments on this thing?

I would assume it has a 50 Ohm resistor inside.
Note the effeciency rating -- they talk their way
around it!
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

694. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 21:13:43 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DA89070.7BB8D88F@shaw.ca>
Source record: 133082

Scanstar Fan wrote:
>
> Things that sound too good to be true usually are but does anyone have
> any comments on this thing?
>
> It's supposed to match almost any antenna on all bands with no
> adjustments.
>
> Cool huh?
>
> http://www.cw.or.kr/hamsack/matchall.htm

I should also add that if you continue to read the
fine print it has a statement that it contains the
"latest Maxcom technology". I don't usually read
those type ads that far through!
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

695. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 21:26:12 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <ea4hquo2udbemg2ur3tevak8248bss16oj@4ax.com>
Source record: 133084

On 12 Oct 2002 20:33:44 GMT, Dick Carroll <dixie@townsqr.com> wrote:

>
>
>Dan Richardson wrote:
>
>> >
>> > Noooooooo, Danny I'm not smoking wacky or any other kind. If a fella who
>> >holds a ham radio license doesn't know better than to try to use a
>> >coax-fed 80 meter dipole on 40 then it's time he learned, the hard way
>> >if necessary. The easy way out is to just parallel a 40 meter dipole
>> >with the 80.
>>
>> Beg your pardon, but you did say ANY length at ANY HF frequency at ANY
>> load. Didn't you?
>>
>
>
> Read it again, Dan. I said any length a ham was LIKELY to use. If he's
>so ignorant as to be likely use a length so far out of range, that's a
>defect he'll have to learn to correct, isn't it? Ham are supposed to
>learn enough to know *something* about the subject, tho that seems to be
>in question nowdays.

Yea, sure.

696. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 21:45:03 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoa54vetl0@208.207.71.137>
Source record: 133083

"Ian White, G3SEK" wrote:
>
> Dick Carroll wrote:
> > ANY coax of ANY length that any ham is likely to acquire and install
> >won't cause such a drastic loss at ANY HF frequency with any load any
> >ham is likely to try to use.
>
> That just ain't so,

Begging your most humble pardon, unless you and I have vastly
differing views of ham radio, it IS so.

The original question forced one to make some assumptions, and it's
clear we chose different ones. I assumed since he was using his tuner to
match to 1:1 that he had to be using it on a single band. You just can't
do that on all bands. I don't know what you assumed, obviously it was
something else.

I know that any ham who has learned enough to qualify for an HF license
should know that he can't use a single dipole at 52 ohms on all bands,
even with a tuner-but I also know that's a stretch with today's
memorize-me tests. I don't consider myself so different from other hams
that I wouldn't know (as Danny seemed to think) better than to try to
use a full wave coax-fed dipole, such as using an 80meter dipole on 40.
Of course that will result in unusably high reflection loss and make it
necessary to use high impedance balanced line and a balanced tuner (or
Cecil's scheme). I didn't glean from the inquiry that he was in the dark
on that point. So perhaps I should have said "single band" dipole and
assumed nothing. Mea culpa.

so all the rest of that message (including the
> personal attacks) is worthless.

Personal attack are usually worthless. Yours, too.

>
> Take 30m (100ft) of RG213 - good, thick "low-loss" cable by HF
> standards. Matched loss is 0.2dB at 1.8MHz, rising to 1.0dB at 29MHz.
> Completely trivial, everyone agrees.
>
> Increase the SWR to 2, and the extra loss due to the mismatch is
> 0.05-0.19dB across the same frequency range. Still trivial. *That* is
> what Maxwell was saying: if the SWR on your coax is already quite low,
> you don't need to sweat about getting it any closer to 1.0. Your line
> loss won't improve worth a darn.
>

> But now increase the SWR to 20 - that's a feed impedance of only 1kohm,
> quite easily reached in a wire antenna that's way off resonance. Now the
> extra loss has risen to 1.5-4.1dB. You're still OK on 1.8MHz, but on
> 29MHz your total feeder loss is now over 5dB - that means 60% of your
> transmitted power is simply going to heat up the coax. Starting to worry
> yet?
>

Nope, not if I really need to use that system at that time. I will also know that the 40 remaining watts of the original hundred will be quite effective, particularly on 10 meters. Desirable? Not at all. Useable? Definitely. And no one should or would intentionally cause himself to fall into such a situation.
But it's unproductive to teach newcomers that high loss situations are always bad and never useable. It's also incorrect. That's the power of the knowledge and experience to sort it out.

> If you try to operate a coax-fed wire antenna dead on its second
> harmonic, the mismatch loss at 29MHz can easily climb over 10dB - only
> 10% of your transmitter power reaches the antenna.
>

But that won't be the case if you're using a dipole on a single band. That was the point. And that was how I understood his situation to be since he said he was using a tuner to obtain 1:1 match. I've never seen a dipole that could be matched to 1:1 on several bands with any tuner I ever tried. And I have tried. Two or three dipoles for different bands paralleled are another story. I use that scheme routinely on most all HF bands.

> That's with good low-loss coax like RG213. If you try the same with
> RG58, you'll reach the same losses with a shorter length of coax, at a
> lower SWR, or at a lower frequency.
>
> Also note that the SWRs I'm quoting are at the antenna. When the line
> losses start to rise, you see an optimistically low SWR in the shack.
>
> >The man asked a simple question, and I gave him a simple answer.
> >Which was NOT incorrect.
>
> He'll get out fine at the edges of the band his antenna is designed for.
> That's not in dispute.

Then we have no dispute. I know he won't be able to use it on multiple bands. As I read his question, he was wondering if he should use ladderline in place of his tuner on his single band to get less loss. The answer is no.

>
> But he's also wondering about using the same coax-fed antenna on bands
> far away from its design frequency. If his tuner in the shack can match
> it, then for sure he'll get out and work people... but eventually he'll

> wonder why he doesn't get out as well as his friend in the next town...
> why stations calling CQ seem to go back to other people... why he has to
> wait in pileups for DX that he really wants to work.
>
> Eventually he'll be disappointed and he won't know why. The sad irony
> is, the more he cares about doing well in ham radio, the more
> disappointed and puzzled he will be.

Good grief, man, it he gets that far without realizing he has a serious problem he's too far out of his element to survive anyway. His gear will be either roasted or in foldback shutdown.

>
> That matters to me. I believe that we radio hams are *smart* people - we
> can handle a lot more than the dumbed-down half-truths that some people
> would feed us. They're selling us way short.

Your personal attack is noted.

>
> (FYI, I'm not an engineer of any kind. I learn some things about ham
> radio from engineers - they know stuff, and are worth listening to - but
> some of the most important parts of my ham radio education came from a
> hotel keeper, a variety of people who worked in shops/stores and
> offices, a pig farmer, a corn merchant, and a guy who left school at 16
> and chopped meat for a living. Time and again, ham radio proves that if
> we're interested enough to *want* to find out about something, then
> we're also smart enough to handle it.)
>
> Of course I don't expect everyone to calculate their feedline losses -
> there's no need. But I do believe that everyone who reads this can
> handle *two* simple facts about losses and SWR on coax:
>
> 1. If the SWR on your coax is already quite low, you don't need to
> sweat about getting it any closer to 1.0 (that's what Maxwell said).
>

The operative term is "acceptably low". It's clear that term may mean different things to different people. I think it's wrong to insist that hams always have to have only a low loss antenna system when sometimes even considerably lossy antenna systems is very much acceptable and when under some circumstances their availability and use can be critical.

> 2. But... if you make too many compromises with high SWR, long lengths
> and the quality of coax, losses can creep up on you.
>

Sure can. That doesn't mean it's necessarily all bad to have increased losses- especially in ham radio where the usual case is not marginal communications and QRP is a way of life for many anyway. If 5 watts will serve much of the time, it really doesn't make it a felony to lose even half of a hundred watt signal at unusual times, does it? It's a full 10

dB above QRP and only 3dB down from the original. Unusable? Not at all. Match it and go.

It does mean it's important to realize how this works and to be able to evaluate ones situation to make the determination whether or not your system is usable in a given situation. And to be able to make the proper corrections to make it more efficient, if that can be accomplished under the existing circumstances. THAT is partly what I learned from Walt Maxwell. Since I began ham radio some time before I learned enough to make such evaluations I can now appreciate just how compromised some of my early ham radio antenna systems must have been, and that of many other hams. But they still worked well and I made lots of contacts. There surely is a message in that, for some of us at least. Optimal is best, but not mandatory nor even necessarily desirable at all times. Circumstances and situations dictate. Many hams with antennas who live in areas with deed restrictions will agree.

The term "well" is very subjective, of course. To me it means doing the job acceptably given the instant circumstances. I see a lot of perfectionism from many quarters today that it seems may cause some new hams the serious problem of believing that simple, directly constructed but flexible antenna systems won't work, or won't work well enough to use on the air. It simply isn't so, and for as long as I'm able I'll counter that concept regardless of who is is that puts it forth.

Many if not most ham radio antennas are far more inefficient that most of their owners believe. Most have been spoonfed data that are incorrect enough for their individual installation that they believe they have efficiencies and attributes that are simply not present.

> The rest of the information is there, but only if you decide you need
> and want it. After all, it's a hobby.
>

There isn't a single thing you've written above that I didn't know other than your personal background. I answered the poster's inquiry as I read it, and it's clear that you and I read it quite differently. You seemed to attack my answer as grossly incorrect when it was indeed correct for the question as I read it. If I'd known I'd wind up in a big controversy over such a seemingly simple topic I probably would have just refrained from answering, but I see far too many answers to that sort of question that simply do not answer the question.
Seems usenet is becoming nothing more than an acrimonious feuding ground, even the the more technical groups. Sad.

Dick

697. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 22:35:57 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA8A3CD.23A22C8F@cwis.net>
Source record: 133086

In the late '70's early 80's 'Max-com' made such
a device. They sold a number of them, some worked
well, some didn't. I think it was QST that had one
X-rayed. Turned out to be a resister across the feed
line terminals. It did exactly what they said it would
do, match any antenna. What's the most amazing is that
there were many users who were quite happy with it...
'Doc

698. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-12 23:58:33 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aoacv9ptq1@knossos.btinternet.com>
Source record: 133087

> What's the most amazing is that
> there were many users who were quite happy with it...
> 'Doc

==========

I expect the military popularised it - brute force and ignorance as usual !

It would have been more discreet merely to use resistance wire in the
antenna.

699. Re: What gauge for a QRP dipole? Reflector?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 00:24:35 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <uqhf83eg7ejja9@corp.supernews.com>
Source record: 133088

Excellent! Well done Roy.

Had a radio amateur friend who built an 80 meter vertical beam many years ago. The intent was to improve signal into a net, not for DX. As I recall, the reflector wire was about 10 meters above ground with the driven element another 10 meters higher and a director at about 30 meters above ground. At least over a 200 to 300 mile path, it was a stomping antenna.
73 Mac N8TT
--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

700. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 00:38:50 UTC
From: n2ey@aol.com
Message-ID: <20021012203850.28700.00001518@mb-fz.aol.com>
Source record: 133089

In article <3DA8A3CD.23A22C8F@cwis.net>, 'Doc <w5lz@cwis.net> writes:

> In the late '70's early 80's 'Max-com' made such
>a device. They sold a number of them, some worked
>well, some didn't. I think it was QST that had one
>X-rayed. Turned out to be a resister across the feed
>line terminals. It did exactly what they said it would
>do, match any antenna. What's the most amazing is that
>there were many users who were quite happy with it...

Yep - and they cost a pretty penny too.

The X-ray showed a toroid transformer and a circuit board, too.

QST opened one up and found it full of epoxy. They dissolved the epoxy layer by layer and found that the circuit board served no electrical function - it wasn't connected to anyhting, and was in fact an old computer board that had been cut down to fit inside the box. Dissolving more epoxy showed that the balun was indeed functional, as were the noninductive resistors at the very bottom of the box.

Why the toroid? Because without it, you'd be able to measure 50 ohms DC resistance across the input and output terminals. The toroid looks like a short to DC.

The "Match-All" folks can't even spell "balun" correctly - or perhaps that is intentional. As pointed out, "latest Maxcom technology" is a dead giveaway. Note that the device has a "maximum temperature rise" of 80 degrees F! Note also the caution not to be concerned about received signals being several S-units less.

Don't waste your money.

73 de Jim, N2EY

701. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 01:07:02 UTC
From: Dan/W4NTI <w4nti@mindspringnospam.com>
Message-ID: <aoagv3$j3q$1@slb7.atl.mindspring.net>
Source record: 133090

Just proves my statement....

"Ya just cain't fix stupid"

Dan/W4NTI

"'Doc" <w5lz@cwis.net> wrote in message news:3DA8A3CD.23A22C8F@cwis.net...
> In the late '70's early 80's 'Max-com' made such
> a device. They sold a number of them, some worked
> well, some didn't. I think it was QST that had one
> X-rayed. Turned out to be a resister across the feed
> line terminals. It did exactly what they said it would
> do, match any antenna. What's the most amazing is that
> there were many users who were quite happy with it...
> 'Doc

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Version: 6.0.401 / Virus Database: 226 - Release Date: 09-Oct-02

702. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 01:09:28 UTC
From: Dan/W4NTI <w4nti@mindspringnospam.com>
Message-ID: <aoah6s$c7d$1@slb3.atl.mindspring.net>
Source record: 133091

Did these guys also design the BW folded dipole? You know the one that goes from DC to Daylight with a flat SWR and uses a resistor?

They also mention not to be concerned about the lower received signals.....hmmmmmm.

Dan/W4NTI

"N2EY" <n2ey@aol.com> wrote in message news:20021012203850.28700.00001518@mb-fz.aol.com...
> In article <3DA8A3CD.23A22C8F@cwis.net>, 'Doc <w5lz@cwis.net> writes:
>
> > In the late '70's early 80's 'Max-com' made such
> >a device. They sold a number of them, some worked
> >well, some didn't. I think it was QST that had one
> >X-rayed. Turned out to be a resister across the feed
> >line terminals. It did exactly what they said it would
> >do, match any antenna. What's the most amazing is that
> >there were many users who were quite happy with it...
>
> Yep - and they cost a pretty penny too.
>
> The X-ray showed a toroid transformer and a circuit board, too.
>
> QST opened one up and found it full of epoxy. They dissolved the epoxy layer by
> layer and found that the circuit board served no electrical function - it
> wasn't connected to anyhting, and was in fact an old computer board that had
> been cut down to fit inside the box. Dissolving more epoxy showed that the
> balun was indeed functional, as were the noninductive resistors at the very
> bottom of the box.
>
> Why the toroid? Because without it, you'd be able to measure 50 ohms DC
> resistance across the input and output terminals. The toroid looks like a short
> to DC.
>
> The "Match-All" folks can't even spell "balun" correctly - or perhaps that is
> intentional. As pointed out, "latest Maxcom technology" is a dead giveaway.
> Note that the device has a "maximum temperature rise" of 80 degrees F! Note

> also the caution not to be concerned about received signals being several
> S-units less.
>
> Don't waste your money.
>
> 73 de Jim, N2EY

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Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.401 / Virus Database: 226 - Release Date: 09-Oct-02

703. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 01:42:45 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoaj2l$pk1$0@208.207.71.175>
Source record: 133092

Scanstar Fan wrote:
>
> Things that sound too good to be true usually are but does anyone have
> any comments on this thing?
>
> It's supposed to match almost any antenna on all bands with no
> adjustments.
>
> Cool huh?
>
> http://www.cw.or.kr/hamsack/matchall.htm

It doesn't match any antenna, it matches the rig. What RF it radiates
is incidental, and surprisingly there is enough radiated to work
stations, some with useful signal strength.
Just goes to show that a very poor radiator is much better than none at
all. Otherwise they could never have sold any of these abominable
things.

Dick

704. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 01:59:48 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoak2k$s6q$0@208.207.71.175>
Source record: 133093

Dan Richardson wrote:
>
> On 12 Oct 2002 20:33:44 GMT, Dick Carroll <dixie@townsqr.com> wrote:
>
> >
> >
> >Dan Richardson wrote:
> >
> >> >
> >> > Noooooooo, Danny I'm not smoking wacky or any other kind. If a fella who
> >> >holds a ham radio license doesn't know better than to try to use a
> >> >coax-fed 80 meter dipole on 40 then it's time he learned, the hard way
> >> >if necessary. The easy way out is to just parallel a 40 meter dipole
> >> >with the 80.
> >>
> >> Beg your pardon, but you did say ANY length at ANY HF frequency at ANY
> >> load. Didn't you?
> >>
> >>
> >>
> > Read it again, Dan. I said any length a ham was LIKELY to use. If he's
> >so ignorant as to be likely use a length so far out of range, that's a
> >defect he'll have to learn to correct, isn't it? Ham are supposed to
> >learn enough to know *something* about the subject, tho that seems to be
> >in question nowdays.
>
> Yea, sure.

Ok Dan, here's what I originally posted that Ian took such exception
to:

".....At HF if you use anywhere near decent coaxial
> feedline the loss will be insignificant when you place the tuner at the
> line input instead of at the antenna.
> It's done for operator convenience. I can work the entire band by
^ ^^^^^^^^^^^^^^^^^^^^^^^^
> retuning the antenna *system* from the operating desk. The difference in
> my radiated power from the antenna resonant frequency to either band
> edge is trivial.
> Ask Walt Maxwell. Or check his book "Reflections".

My case is rested. Carry on the with the usual ragged nitpicking

Dick

Bumper sticker seen on the rear of a horse trailer: "Don't be what you see".

Good advice, Dan.

705. Re: How come there are shallow nulls with dipoles on other freqs??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 02:02:02 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoak6q$s6q$1@208.207.71.175>
Source record: 133094

StarGazer wrote:
>
> With my 160 m Inverted-L I see a minor null in the SWR on
> freqs other than 160 m.
>
> Whats up with that??

You never heard of multiple resonances? They're not uncommon.

706. G5RV on Roof--Need Some Suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 02:20:21 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <d9khqucu7u0tmh5jstmrq927h1p79vmt68@4ax.com>
Source record: 133095

Living in a home owners association, I have few options for a good stealth HF antenna, but I think I've found a reasonable compromise. I decided to mount a G5RV dipole on my roof, with the center supported by a non metallic rod at the chimney, and the tips held several inches off the roof by non metallic brackets attached to the eves. This would make it somewhere between a flat dipole and a shallow inverted V. Since my nearest neighbor is about 800 feet away, I doubt anyone will be able to see the wire. The implementation seems pretty simple, but I need some advice:

Is it okay to lay the 300 ohm twin lead coming off the antenna on the roof tiles? Since the tiles are made of concrete, it is very difficult to mount standoffs, but I guess I could if I had to.

The chimney is modern construction--wood frame, with stucco over wire mesh, aluminum duct down the center, and an aluminum rain guard on top. With all that aluminum, what is the closest I should allow the center portion of the antenna? The mount will be off the side of the chimney to avoid soot build up.

Needless to say, I will be installing a lightening arrestor where the coax enters the house. Is there any more I should do to protect my home from lightning strikes (I live on a peak, and my chimney is the highest point for about a quarter mile)?

Thanks in advance for suggestions.

--Mike

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http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

707. Re: Measuring voltage, current and phase at VLF Ae feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 02:31:54 UTC
From: k7itm@aol.com
Message-ID: <3200347.0210121831.f54a821@posting.google.com>
Source record: 133096

As Jack said and Cecil intimated, sample the current and the voltage...perhaps the current with a toroid current transformer, and perhaps the voltage with a divider (resistive or capacitive) or a voltage transformer.

To turn the voltage and current samples into signals you can deal with relatively easily...if you can generate a clock at 4 times the operating frequency, you can then implement something like the Tayloe mixer, and get in-phase and quadrature values for the voltage and the current. From those, it's not difficult to find the phase angles...it's fairly easy trigonometry. The difference between the voltate and the current phase angles should give you the load phase angle.

I would suggest they spend some time calibrating the system. Don't just assume it will be correct, but test it with known loads. With reasonable construction, I'd expect it to be pretty accurate by design, but they won't know till they test it.

Cheers,
Tom

neoklis@users.sourceforge.net (Neoklis) wrote in message news:<cdcba458.0210110541.3cfbde@posting.google.com>...
> Hi!
>
> A fellow ham's son is studying Electrical Engineering and
> he was given as a project, the measurement of voltage, current
> and phase angle at the feedpoint of a vlf antenna, with
> digital indication. As this subject is somewhat off-topic
> to his curriculum, he is looking for some info on the subject
> to get him started.
>
> I searched the net but seems there is little design info on
> this subject. Me and my friend would be greatful for any
> pointers to any material on this subject.
>
> My thanks in advance
>
>
> 73 Neoklis 5B4AZ

708. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 02:38:53 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <115q9.53366$VQ2.12370054@twister.midsouth.rr.com>
Source record: 133103

A lightbulb would be a lot cheaper and more efficient!! Probably could go
to 1kw if you oil cooled the thing. Hi Hi

Ken

"Scanstar Fan" <Fred@Flinstone.net> wrote in message
news:fqugqu8matldgr9arqos65pthq0ubcshmr@4ax.com...
> Things that sound too good to be true usually are but does anyone have
> any comments on this thing?
>
> It's supposed to match almost any antenna on all bands with no
> adjustments.
>
> Cool huh?
>
> http://www.cw.or.kr/hamsack/matchall.htm

709. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 02:42:30 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <fulhqukfuqhuk29hup4mcs3413frr45hfa@4ax.com>
Source record: 133098

On 13 Oct 2002 01:59:48 GMT, Dick Carroll <dixie@townsqr.com> wrote:

>
>[snip]
>
>
> Ok Dan, here's what I originally posted that Ian took such exception
>to:
>
>
> ".....At HF if you use anywhere near decent coaxial
>> feedline the loss will be insignificant when you place the tuner at the
>> line input instead of at the antenna.
>> It's done for operator convenience. I can work the entire band by
> ^ ^^^^^^^^^^^^^^^^^^^^^^^^
>> retuning the antenna *system* from the operating desk. The difference in
>> my radiated power from the antenna resonant frequency to either band
>> edge is trivial.
>> Ask Walt Maxwell. Or check his book "Reflections".
>
>
>My case is rested. Carry on the with the usual ragged nitpicking
>
>Dick
>
>Bumper sticker seen on the rear of a horse trailer: "Don't be what you
>see".
>
> Good advice, Dan.

I was not responding to Ian's comments just yours. ie.." ANY length at
ANY HF frequency at ANY load" . Furthermore what may be "likely" to
one person can be some altogether different to someone else as it is
not specific. However, " ANY length at ANY HF frequency at ANY load"
is quite specific.

I have copies of Walter's book. So can please tell me where it is in
his book that he states that "ANY coax of ANY length that any ham is
likely to acquire and install won't cause such a drastic loss at ANY
HF frequency with any load any ham is likely to try to use."? Because
I sure can't find it.

And, yes can you do it with out name calling and personal attacks?

73
Danny

710. Multiband Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 02:49:10 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <Ga5q9.53367$VQ2.12372830@twister.midsouth.rr.com>
Source record: 133097

Hello all,

Anyone know where I can find the formulae for building a multiband dipole using several dipoles connected to the same feedpoint? Gets a little complicated when building an antenna for six different frequencies between 4.5 and 18MHz. Pruning would be a lot easier if you have an approximate length for each dipole. I remember seeing an article in QST several years ago.

Thanks,

Ken

711. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 03:37:22 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0210121937.42cece4c@posting.google.com>
Source record: 133099

'Doc <w5lz@cwis.net> wrote in message news:<3DA8A3CD.23A22C8F@cwis.net>...
> In the late '70's early 80's 'Max-com' made such
> a device. They sold a number of them, some worked
> well, some didn't. I think it was QST that had one
> X-rayed. Turned out to be a resister across the feed
> line terminals. It did exactly what they said it would
> do, match any antenna. What's the most amazing is that
> there were many users who were quite happy with it...
> 'Doc

P.T. Barnum had it right . . "There's sucker born every minute."

w3rv

712. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 03:39:08 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DA8EAC4.238A7ED3@shaw.ca>
Source record: 133100

Dick Carroll wrote:
>
> Scanstar Fan wrote:
> >
> > Things that sound too good to be true usually are but does anyone have
> > any comments on this thing?
> >
> > It's supposed to match almost any antenna on all bands with no
> > adjustments.
> >
> > Cool huh?
> >
> > http://www.cw.or.kr/hamsack/matchall.htm
>
> It doesn't match any antenna, it matches the rig. What RF it radiates
> is incidental, and surprisingly there is enough radiated to work
> stations, some with useful signal strength.
> Just goes to show that a very poor radiator is much better than none at
> all. Otherwise they could never have sold any of these abominable
> things.
>
> Dick

That's the crux of the whole thing. You can basically load
anything
without regard to efficiency or radiation patterns and all
that sort
of thing and still have a great time on the air. There are
many
people working low power and QRP (I myself work 10W or less
most of
the time) having a great time while others are sitting back
and
fretting because something about their system is not ideal.

It would be nice to have the physical realms required to be
able
to run perfect or nearly so systems, but I would venture to
say
that the majority of hams cannot. For them, the fun is
being on
the air. Yes, perhaps ignorance is bliss, and getting on
the air
regardless of other limiting factors is where the fun is.

I love playing with antennas, but I cannot let those factors which are beyond my power (through knowledge, physical, or financial limitations) spoil the fun that is otherwise available.

No! I wouldn't use the Maxcomm or variants thereof, but many have succumbed to the sales pitch and are on the air having a
great time.

Ham Radio is fun! For some it's the technical side, for others, the operating. Have a great time regardless!

That's my 2 cent rant!
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

713. Re: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 03:41:35 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <PX5q9.205751$TX5.8554735@news1.east.cox.net>
Source record: 133101

Hello Wes

Why would you want an operating system that doesn't work
with half of your software, especially if your system is stable
now? If it ain't broke, don't fix it!

73

Pete

"Wes Stewart" <n7ws@nowhere.com> wrote in message
news:2si0qu0vej2q6ckmkv2j24ik7svohbbovp@4ax.com...
> Sorry to be OT but since there are a lot of computer savvy folks here
> I figured I'd ask a few questions here instead of some group where I
> would be a newbie.
>
> Is there any compelling reason to migrate to XP (pro) from Win98? I'm
> in the process of "upgrading" but I feel "degraded" instead.
>
> Note: "Stability" is not a compelling reason. The latest example I
> observed of superior stability was when the XYL asked me to drive her
> someplace and I told XP to shut down the computer. It dutifully
> popped up a screen that said "Windows shutting down" so I left. When I
> returned four hours later, it was still "shutting down." But maybe
> that's what Bill Gates means by stable.
>
> Half of my software doesn't work with XP, and of the half that does
> often I have to install it twice on the two "virtual machines" that
> I've tried to set up.
>
> I used windows update to install Service pack 1, which only took four
> hours to download and install and it appears that if I blow away the
> operating system and want to reinstall it I get to do the four hour
> drill again because the service pack wasn't actually placed on my hard
> drive for backup.
>
> I put this on a new hard drive, which I partitioned into two logical
> drives. According to the best info I could find I first installed
> Win98 on one partition, then XP on the other. XP then made a boot.ini
> file that is supposed to allow dual booting. Not on your life.
>
> I previously used Zone Alarm with Win98. Is the XP "firewall"
> adequate or do I need Zone Alarm too?
>
> I seem to be spending half of my waking hours maintaining a computer,

> which is supposed to be a tool, not an avocation.
>
> Should I buy a Mac?
>
>
> 73,
>
> Wes
>

714. Which G5RV: Van Gorden or Antennas and More?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 03:47:21 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <r1rhqu8c5rn0ucf1er7ulqgqt5nool2fs1@4ax.com>
Source record: 133102

For those who have owned them, used them, or just compared the build quality: Which one do you think is better?

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715. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 04:08:19 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoarjj$g5n$0@208.206.142.70>
Source record: 133104

Dan/W4NTI wrote:
>
> Did these guys also design the BW folded dipole? You know the one that goes
> from DC to Daylight with a flat SWR and uses a resistor?
>
> They also mention not to be concerned about the lower received
> signals.....hmmmmmm.

No, that's a different although related beast.

Dick

716. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 04:26:40 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoasm0$m93$0@208.206.142.86>
Source record: 133105

Dan Richardson wrote:
>
> I was not responding to Ian's comments just yours. ie.." ANY length at
> ANY HF frequency at ANY load" . Furthermore what may be "likely" to
> one person can be some altogether different to someone else as it is
> not specific. However, " ANY length at ANY HF frequency at ANY load"
> is quite specific.
>

Can you say "context"? Do you always jump in right in the middle of thread and hold the current poster responsible for reciting the entire thread in each and ever segment/post? I can't see how you can answer that question in the negative, given the above. Should you have actually read the entire thread, as Ian apparently also did not, it would have been quite clear that the reference was to a single band. If a licensed ham has not gained the basic knowledge to cut the dipole to fit a single band then he can and LIKELY will remain confused whatever help he is offered by anyone.

And yes, Dan, unfortunately and strictly on your own, you're showing all too many of the characteristics of a horses ass. It was disappointing to see Ian go off on such a wild rant without actually reading what was written. You seem bent on joining him. Feel free, but don't expect to bulldoze your way over me in the process as Ian evidently thought he could. I had a lot of respect for him before that. I'm afraid he made a big dent in it.

> I have copies of Walter's book. So can please tell me where it is in
> his book that he states that "ANY coax of ANY length that any ham is
> likely to acquire and install won't cause such a drastic loss at ANY
> HF frequency with any load any ham is likely to try to use."? Because
> I sure can't find it.
>

That's because that statement is not to be found in his book. But within the context of this thread and my participation in it, it's true.

Dick

717. Re: How come there are shallow nulls with dipoles on other freqs??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 06:31:32 UTC
From: StarGazer <pti@capnet.com>
Message-ID: <3DA91344.3AF0A80C@capnet.com>
Source record: 133106

Heard of them but they aren't deeply nulled like the first one.

Dick Carroll wrote:

> StarGazer wrote:
> >
> > With my 160 m Inverted-L I see a minor null in the SWR on
> > freqs other than 160 m.
> >
> > Whats up with that??
>
> You never heard of multiple resonances? They're not uncommon.

718. How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 07:03:29 UTC
From: ptaak@yahoo.com
Message-ID: <f235099a.0210122303.344f05a8@posting.google.com>
Source record: 133107

I bought a stereo that (surprise) actually has a functional plug in for an external AM antenna...something I thought all manufacturers had given up on. It was supplied with a small plastic loop bound wire am antenna to use which is ok, but I want a stand alone vertical am antenna so it need not be adjusted for direction. Any advice?

Peter Ward

719. Re: Measuring voltage, current and phase at VLF Ae feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 07:25:31 UTC
From: neoklis@users.sourceforge.net
Message-ID: <cdcba458.0210122325.17a9606f@posting.google.com>
Source record: 133108

k7itm@aol.com (Tom Bruhns) wrote in message
news:<3200347.0210121831.f54a821@posting.google.com>...
> As Jack said and Cecil intimated, sample the current and the
> voltage...perhaps the current with a toroid current transformer, and
> perhaps the voltage with a divider (resistive or capacitive) or a
> voltage transformer.

OK, lots of help on the subject which I have forwarded to the
interested parties.

My thanks to all for the response!

73 5B4AZ

720. Re: Which G5RV: Van Gorden or Antennas and More?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 08:39:58 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA9315E.66C28456@cwis.net>
Source record: 133109

Mike,
What's the difference?
'Doc

721. Re: Multiband Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 08:43:53 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA93249.1D594834@cwis.net>
Source record: 133110

Ken,
Just like any other 1/2 wave dipole, (468 / f) for the length
of each. You'll have to do some tweaking because every
installation
is different, none are simple 'cut' and hang them up unless you're
very, very lucky.
'Doc

722. Re: How come there are shallow nulls with dipoles on other freqs??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 11:32:09 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <aoblji0r2i@enews4.newsguy.com>
Source record: 133111

this is common on most antennas. with an inverted L you would see the 'best' swr dip where the vertical part is 1/4 wave long. at this frequency the real part of the impedance is in the range of about 30-70 ohms or so which provides a good match for the common 50 ohm coax.

as you go higher in frequency the impedance typically goes higher until you get to double the frequency where the vertical part is 1/2 wave long, after that the impedance typically comes back down to another minimum when you get to the frequency where the vertical is about 3/4 waves long. this dip typically won't be as deep as the first one because the real part of the impedance is probably not near 50 ohms... so while the antenna is 'resonant' it is not 'matched' to the feedline so the swr at the resonant point is not 1:1.

there can also be other dips caused by coupling to nearby conductive objects. resonances in rain gutters, other antennas, power lines, fences, etc can all cause dips in the swr of an antenna.

"StarGazer" <pti@capnet.com> wrote in message
news:3DA91344.3AF0A80C@capnet.com...
> Heard of them but they aren't deeply nulled like the first one.
>
>
>
> Dick Carroll wrote:
>
> > StarGazer wrote:
> > >
> > > With my 160 m Inverted-L I see a minor null in the SWR on
> > > freqs other than 160 m.
> > >
> > > Whats up with that??
> >
> > You never heard of multiple resonances? They're not uncommon.
>

723. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 12:16:53 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <81piqugim850dorhtv9u2qv9rboluvdvc1@4ax.com>
Source record: 133112

On 13 Oct 2002 04:26:40 GMT, Dick Carroll <dixie@townsqr.com> wrote:

> And yes, Dan, unfortunately and strictly on your own, you're showing
>all too many of the characteristics of a horses ass.

Goodbye

724. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 12:17:30 UTC
From: richardharrison@webtv.net
Message-ID: <17690-3DA9645A-275@storefull-2313.public.lawson.webtv.net>
Source record: 133113

Peter Ward wrote:
"Any advice?"

A radio needs to pick up only enough signal to overcome internal noise..
For AM broadcasts, the height of the vertical antenna tends to determine
the received antenna voltage because the signal is vertically
polarized..
15 to 20 feet is usually plenty of antenna.

Best regards, Richard Harroison, KB5WZI

725. Re: How come there are shallow nulls with dipoles on other freqs??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 12:46:04 UTC
From: richardharrison@webtv.net
Message-ID: <15147-3DA96B0C-607@storefull-2314.public.lawson.webtv.net>
Source record: 133119

StarGazer wrote:
"Heard of them (harmonics) but they aren`t deeply nulled like the first one (resonance)."

At first resonance, radiation resistance of a dipole (at a current loop) may be 72 ohms. The second resonance radiation resistance may be 200 ohms. The third may be 102 ohms. The fourth may be 260 ohms.

SWR determinations are usually affected by inpedance.

Best regards, Richard Harrison, KB5WZI

726. QRM entering via the antenna connector ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 12:52:39 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210130452.15c3ffca@posting.google.com>
Source record: 133114

Hi,

As some of you know it, I 'm using a sloper longwire made of simple electrical wire (for the part located outdoors + RG58U indoor) for SWL purposes in my LX appartment. One half of the wire, the RG58U, is connected to the antenna input of my RTX using a "banana" jack (sort of phone jack with only one pole) that enters in the middle of the female PL connector attached to the RTX. This connexion is quick and easy to un/plug.

As I experiment much QRM, over 57-9 on all bands over 10 Mhz I suspect a local generator to create these noises (as noises disappear 10m away from the house) that i capture with this antenna system (10m running indoor, 15m running tilted outdoors).

Here is my idea:
I am currently replacing this wire by a windom of about 25 m long constituted of isolated wire and a balun ending with a PL female connector I will connect to a coax RG58U, this last running indoor over 10m at ceiling level to the RTX antenna input jack.
The shorter part of the windom (about 8m long ?) will run either in only one room at ceiling level or will be tied accross the appartment, to test.
The balun will be placed just out of the window, the longer segment running outdoors and tilted as a sloper to the end of the garden over 15m, attached with an insulator to a fence.

Why this change ? Looking accuretaly the windom and comparing it with the longwire, at first sight both antennas are nealy "similar" in design, excepting.... i have noted that the windom uses a balun (I ignore it for this explanation), an isolated wire (covered with plastic), a PL connector and is insulated at each end. The wire itself is ticker.

So I suspect that one noise "catcher" is my longwire itself and its ordinary design : the wire is not isolated at all and I use a banaba jack RTX side.
I suspect various things:
- the banana should capture much more QRM than a PL-259 and
- the isolated wire could probably help me in removing most of the noise I currently capture with the indoor part of the wire.

Should the idea to replace the longwire by an isolated windom with PL a good one ? In all cases I will test it next days and I will complete this mail.

I bet this windom could remove a lot of QRM due to its design, not all
but to say maybe 3-4 points of the S-meter... You bet ?

Thierry
http://www.astrosurf.com/lombry/menu-qsl.htm

727. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 12:56:26 UTC
From: Andy Blackburn <andyblackburn3@comcast.net>
Message-ID: <_XadnYjLC-6C8DSgXTWcpA@News.GigaNews.Com>
Source record: 133115

Hi Peter,

These may not be what you want, but the below URLs will give you some ideas
on enhancing
your AM broadcast reception.

http://ourworld.compuserve.com/homepages/Bill_Bowden/page2.htm
http://www.ccrane.com/am_antennas.asp
http://www.mindspring.com/~brucec/amloop.htm
http://abc.net.au/reception/radio/am_antenna.htm
http://www.discovercircuits.com/A/antenna.htm
http://www.selectatenna.com/

Andy Blackburn

"Peter Ward" <ptaak@yahoo.com> wrote in message
news:f235099a.0210122303.344f05a8@posting.google.com...
> I bought a stereo that (surprise) actually has a functional plug in
> for an external AM antenna...something I thought all manufacturers had
> given up on. It was supplied with a small plastic loop bound wire am
> antenna to use which is ok, but I want a stand alone vertical am
> antenna so it need not be adjusted for direction. Any advice?
>
> Peter Ward

728. Re: kenwoodts50

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 13:00:27 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3da96e70$0$217$ba620e4c@news.skynet.be>
Source record: 133116

Translation from a french NG:

His Kenwood TS50 rig gives up 100w during about 10 minutes - after that it gives only 10w (when rig is warm). He is asking if somebody already has experienced that.

73 de ON5MJ

729. Re: QRM entering via the antenna connector ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 13:07:23 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <feeq9.206676$TX5.8618492@news1.east.cox.net>
Source record: 133117

"Thierry" <lombryt@hotmail.com> wrote in message
news:db35a0c.0210130452.15c3ffca@posting.google.com...
> Hi,
>
> As some of you know it, I 'm using a sloper longwire made of simple
> electrical wire (for the part located outdoors + RG58U indoor) for SWL
> purposes in my LX appartment. One half of the wire, the RG58U, is
> connected to the antenna input of my RTX using a "banana" jack (sort
> of phone jack with only one pole) that enters in the middle of the
> female PL connector attached to the RTX. This connexion is quick and
> easy to un/plug.
>
> > http://www.astrosurf.com/lombry/menu-qsl.htm

Even if you use coax for the indoor portion of the run, noise can couple to the outside of the braid, and travel back to the antenna wire in common mode fashion.

What kind of balun are you using on the longwire? A 9:1 for impedance matching, or a choke balun to reduce common mode coupling? I'd suggest using a common mode ferrite choke on the coax before it enters the building. Ditto for the Windom. You will need to decouple the coax where it exits the building, or all of the noise picked up on the braid will couple back to the antenna.

Pete

730. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 13:11:17 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3da970fd$0$207$ba620e4c@news.skynet.be>
Source record: 133118

I thought this kind of dialog was reserved to French NGs.

73 de ON5MJ

731. Re: Is a car top a good ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 13:43:16 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210130543.1206aba8@posting.google.com>
Source record: 133120

"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message
news:<3da8788e$0$214$ba620e4c@news.skynet.be>...
> Wow ! you don't fear radar traps, is it ?
>
> Jacques - ON5MJ

Where ? Hi ! Luxembourg or Germany is not USA or BE.
Who said I ran at such speeds on public highways...
I am much confortable, and secure, at lower speeds... for myself (and
my wallet) and for the others too or on circuits.

One accident in your live is enough to waste all your live...
I take care, but it is a good car anyway.

Thierry

732. Re: G5RV on Roof--Need Some Suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 14:04:44 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA97D7C.D417E01B@ieee.org>
Source record: 133121

Mike wrote:
> Is it okay to lay the 300 ohm twin lead coming off the antenna on the
> roof tiles? Since the tiles are made of concrete, it is very
> difficult to mount standoffs, but I guess I could if I had to.

The dielectric losses will be higher especially when it rains.
Question is: How much loss are you willing to tolerate?
--
cheers, CAM http://www.qsl.net/w5dxp

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733. Re: G5RV on Roof--Need Some Suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 14:11:52 UTC
From: Scott Vanzandt <vzandt@midsouth.rr.com>
Message-ID: <vcviqu40lt2ko5npkghr98bvstpjgd4i7p@4ax.com>
Source record: 133122

I have my G5RV mounted similar to this and have decent results;
however, If possible, the twin lead needs to come off the other
elements at 90 degrees and should be straight out. That section will
radiate esp. on 40 and 80 meters. I cannot tune 40 on mine with the
rigs internal tuner and even using an external tuner I have some
trouble with that band. 6-80 no probs other than than. I couldn't get
mine up high enough to extend the ends, so I wrapped around the eves
using electric fence stand offs to keep the wire away from the house.
Scott
N2WMD

at, 12 Oct 2002 19:20:21 -0700, Mike <scifiguy at starband dot net>
wrote:

>Living in a home owners association, I have few options for a good
>stealth HF antenna, but I think I've found a reasonable compromise. I
>decided to mount a G5RV dipole on my roof, with the center supported
>by a non metallic rod at the chimney, and the tips held several inches
>off the roof by non metallic brackets attached to the eves. This
>would make it somewhere between a flat dipole and a shallow inverted
>V. Since my nearest neighbor is about 800 feet away, I doubt anyone
>will be able to see the wire. The implementation seems pretty simple,
>but I need some advice:
>
>Is it okay to lay the 300 ohm twin lead coming off the antenna on the
>roof tiles? Since the tiles are made of concrete, it is very
>difficult to mount standoffs, but I guess I could if I had to.
>
>The chimney is modern construction--wood frame, with stucco over wire
>mesh, aluminum duct down the center, and an aluminum rain guard on
>top. With all that aluminum, what is the closest I should allow the
>center portion of the antenna? The mount will be off the side of the
>chimney to avoid soot build up.
>
>Needless to say, I will be installing a lightening arrestor where the
>coax enters the house. Is there any more I should do to protect my
>home from lightning strikes (I live on a peak, and my chimney is the
>highest point for about a quarter mile)?
>
>Thanks in advance for suggestions.
>
>--Mike
>
>
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>and for the spam bots:
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>senator_mccain@mccain.senate.gov
>senator@wellstone.senate.gov
>senator_byrd@byrd.senate.gov
>classonde@psbgm.qc.ca
>root@localhost
>admin@localhost
>root@mailloop.com
>Chairman Reed Hundt: rhundt@fcc.gov
>Commissioner James Quello: jquello@fcc.gov
>Commissioner Susan Ness: sness@fcc.gov
>Commissioner Rachelle Chong: rchong@fcc.gov
>postmaster@localhost
>admin@localhost
>
>Eat that, spam! PLEASE copy this and paste it to your sig card.

734. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 14:13:23 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA97F83.87C8083@ieee.org>
Source record: 133123

Richard Harrison wrote:
> A radio needs to pick up only enough signal to overcome internal noise..
> For AM broadcasts, the height of the vertical antenna tends to determine
> the received antenna voltage because the signal is vertically
> polarized.. 15 to 20 feet is usually plenty of antenna.

Wouldn't a quarter-wavelength be better? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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735. Re: G5RV on Roof--Need Some Suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 14:18:50 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DA980CA.CBFCFAD6@ieee.org>
Source record: 133124

Scott Vanzandt wrote:
>
> I have my G5RV mounted similar to this and have decent results;
> however, If possible, the twin lead needs to come off the other
> elements at 90 degrees and should be straight out. That section will
> radiate esp. on 40 and 80 meters.

It's a balanced dipole fed with balanced twinlead. Assuming a properly
functioning balun at the coax/twinlead junction, why will the twinlead
radiate?
--
cheers, CAM http://www.qsl.net/w5dxp

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736. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 15:10:10 UTC
From: Dan/W4NTI <w4nti@mindspringnospam.com>
Message-ID: <aoc2c1daa1@slb3.atl.mindspring.net>
Source record: 133125

Here is something I have said for years.

"Anything will radiate, its the degree of effeciency thereof"

Dan/W4NTI

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:3DA8EAC4.238A7ED3@shaw.ca...
> Dick Carroll wrote:
> >
> > Scanstar Fan wrote:
> > >
> > > Things that sound too good to be true usually are but does anyone have
> > > any comments on this thing?
> > >
> > > It's supposed to match almost any antenna on all bands with no
> > > adjustments.
> > >
> > > Cool huh?
> > >
> > > http://www.cw.or.kr/hamsack/matchall.htm
> >
> > It doesn't match any antenna, it matches the rig. What RF it radiates
> > is incidental, and surprisingly there is enough radiated to work
> > stations, some with useful signal strength.
> > Just goes to show that a very poor radiator is much better than none at
> > all. Otherwise they could never have sold any of these abominable
> > things.
> >
> > Dick
>
> That's the crux of the whole thing. You can basically load
> anything
> without regard to efficiency or radiation patterns and all
> that sort
> of thing and still have a great time on the air. There are
> many
> people working low power and QRP (I myself work 10W or less
> most of
> the time) having a great time while others are sitting back
> and
> fretting because something about their system is not ideal.
>
> It would be nice to have the physical realms required to be
> able

> to run perfect or nearly so systems, but I would venture to
> say
> that the majority of hams cannot. For them, the fun is
> being on
> the air. Yes, perhaps ignorance is bliss, and getting on
> the air
> regardless of other limiting factors is where the fun is.
>
> I love playing with antennas, but I cannot let those factors
> which are beyond my power (through knowledge, physical, or
> financial limitations) spoil the fun that is otherwise
> available.
>
> No! I wouldn't use the Maxcomm or variants thereof, but many
> have succumbed to the sales pitch and are on the air having
> a
> great time.
>
> Ham Radio is fun! For some it's the technical side, for
> others, the operating. Have a great time regardless!
>
> That's my 2 cent rant!
> --
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
> 58"/43"(!)/44" (already lower too!)
> --------------------
> Visit my FINALLY UPDATED website at
> http://members.shaw.ca/finkirv/
> --------------------
> Irv Finkleman,
> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada

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Version: 6.0.401 / Virus Database: 226 - Release Date: 09-Oct-02

737. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 15:11:40 UTC
From: Dan/W4NTI <w4nti@mindspringnospam.com>
Message-ID: <aoc2eqcqp1@slb4.atl.mindspring.net>
Source record: 133126

I actually did that once. I put a length of zip cord on a light bulb.
Taped it to a broomstick. Put it outside my bedroom window. Hooked it to
my Knight-kit T-50 transmitter and actually worked people on it. j

My best DX was from NE Ohio to NY state on 40cw.

Dan/W4NTI

"Ken N4VSD" <REMOVECAPSn4vsd@yahoo.com> wrote in message
news:115q9.53366$VQ2.12370054@twister.midsouth.rr.com...
> A lightbulb would be a lot cheaper and more efficient!! Probably could go
> to 1kw if you oil cooled the thing. Hi Hi
>
> Ken
>
>
> "Scanstar Fan" <Fred@Flinstone.net> wrote in message
> news:fqugqu8matldgr9arqos65pthq0ubcshmr@4ax.com...
> > Things that sound too good to be true usually are but does anyone have
> > any comments on this thing?
> >
> > It's supposed to match almost any antenna on all bands with no
> > adjustments.
> >
> > Cool huh?
> >
> > http://www.cw.or.kr/hamsack/matchall.htm
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.401 / Virus Database: 226 - Release Date: 09-Oct-02

738. crank-up tower info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 15:16:30 UTC
From: fertree@yahoo.com
Message-ID: <3da98dbb.2242000@news.telocity.com>
Source record: 133127

I'm in the market for a crank-up tower in the 70 foot range (new)
and the only ones I can find online are US Tower and Tri-ex . Does
anyone else currently make a crankup? Thanks

739. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 15:53:29 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <LKudnQrzt-9ECzSgXTWc3A@News.GigaNews.Com>
Source record: 133128

Yeah, a quarter wave would be better, but at the low end of the broadxast band that is over 300 feet. You would need a balloon or something to hold up the end. I don't have a BC antenna as such, but found the 75 meter antenna works best. Polarization does not matter for skywave signals. Unless you have a receiver with really good selectivity and dynamic range, putting up a big antenna could just make things worse. With an ICOM 756 and 75 m antenna I can pull in stations from 600 miles away that are 10 KHz from local 50 KW stations. Works best when I switch to SSB and tune the for the sideband that is further from the local station.

Tam
"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DA97F83.87C8083@ieee.org...
> Richard Harrison wrote:
> > A radio needs to pick up only enough signal to overcome internal noise..
> > For AM broadcasts, the height of the vertical antenna tends to determine
> > the received antenna voltage because the signal is vertically
> > polarized.. 15 to 20 feet is usually plenty of antenna.
>
> Wouldn't a quarter-wavelength be better? :-)
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

740. Re: Multiband Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 16:09:55 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <GtGcnSSi7ssmBzSgXTWcoA@News.GigaNews.Com>
Source record: 133129

Ken,

I did exactly that on 18, 24 and 7 MHz ham bands. What I found out the hard way is that you have to TUNE THE LOWEST FREQUENCY ANTENNA FIRST; the highest frequency last. I had the ends of the 24 MHz antenna about 6 feet below the 18. The 7 MHz was rotated about 15 degrees with respect to the others. SWR at resoance was below 1.5:1. A 1:1 balun was used.

If at all possible, run an EZNEC simulation on it.

Tam/WB2TT
"Ken N4VSD" <REMOVECAPSn4vsd@yahoo.com> wrote in message
news:Ga5q9.53367$VQ2.12372830@twister.midsouth.rr.com...
> Hello all,
>
> Anyone know where I can find the formulae for building a multiband dipole
> using several dipoles connected to the same feedpoint? Gets a little
> complicated when building an antenna for six different frequencies between
> 4.5 and 18MHz. Pruning would be a lot easier if you have an approximate
> length for each dipole. I remember seeing an article in QST several years
> ago.
>
> Thanks,
>
> Ken
>
>

741. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 16:26:20 UTC
From: richardharrison@webtv.net
Message-ID: <17689-3DA99EAC-680@storefull-2313.public.lawson.webtv.net>
Source record: 133132

CAM, W5DXP wrote:
"Wouldn`t a quarter-wavelength be better?"

To transmit, yes. To receive, probably not.

FCC rules specify minimum field intensities stations must proovide to intended service areas.

In urban business and industrial areas, the rules say 10 to 50 mV/m is needed.

In city residential areas, 1 to 10 mV/m is specified.

In rural areas in the winter months, 0.1 to 0.5mV/m is specified.

In southern rural areas of the USA in the summer, FCC specifies 0.25 to 1.0 mV/m. Lots of "static" under these conditions.

At 1 mile from a 1 KW broadcast station, something just under 200 mV/m is received. At 20 miles, about 10 mV/m is usually received, if sea water surface separates you from the station.

A 20-foot vertical antenna is about 6 meters and capable of 6x10 mV/m at 20 miles from the 1 KW station.. 60 mV/m exceeds FCC requirements for noisy urban areas. The irony is that more antenna picks up more noise along with the increased signal and the S/N remains about the same. The minimum specified signals exceed receiver internal noise.

A directional antenna such as a loop can improve S/N by rejecting some of the noise from undesired reception directions.

Best regards, Richard Harrison, KB5WZI

742. Re: Multiband Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 16:28:47 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <3bhq9.13631$UZ1.660397@twister.southeast.rr.com>
Source record: 133130

Hi Ken,

As long as the dipoles are not harmonics, you should be able to use the
quarter wavelengths. If the sides of the dipoles are in the same plane,
there will be some interaction, but you can adjust with an antenna analyzer.
If the elements are 90 deg. apart, there is less interaction.

Good Luck,

Bill, W4WNT

"Ken N4VSD" <REMOVECAPSn4vsd@yahoo.com> wrote in message
news:Ga5q9.53367$VQ2.12372830@twister.midsouth.rr.com...
> Hello all,
>
> Anyone know where I can find the formulae for building a multiband dipole
> using several dipoles connected to the same feedpoint? Gets a little
> complicated when building an antenna for six different frequencies between
> 4.5 and 18MHz. Pruning would be a lot easier if you have an approximate
> length for each dipole. I remember seeing an article in QST several years
> ago.
>
> Thanks,
>
> Ken
>
>

743. Re: How high to mount R7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 16:31:17 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <pdhq9.13632$UZ1.666086@twister.southeast.rr.com>
Source record: 133134

Hi Bob,

I'm using an R-7000 vertical on a 10 foot metal pole. It works well, even though it is a stealth antenna "planted" in a wooded area in the back yard.

Good luck,

Bill, W4WNT

"bob c tripi" <rtripi@world.std.com> wrote in message news:H3tqA5.8pE@world.std.com...
> I have a cushcraft R7 that I want to use, but I'm not sure if it should be a few feet above the ground or about 20 feet up (so it is above the roof). I am looking for where people have mounted theirs and how they found they worked.
>
> 73s
> Bob N1KFV
> --
> Bob Tripi

744. Re: First Wire Antenna Help

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 16:37:02 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <Oihq9.13635$UZ1.666938@twister.southeast.rr.com>
Source record: 133131

Hi Josh,

Sounds like the 4:1 balun in the tuner is the problem. Make up a 4:1 balun separately from the internal one and run it to the coax connection to see if that solves the problem. The Wireman has kits for all sorts of baluns.

I'd also check all solder connections as a precaution, but if the QRP tuner works, that points to the MFJ as the source of the problem.

Good Luck,

Bill, W4WNT

"Joshua Goldsmith" <NOTjoshin@starband.net> wrote in message news:iqrp9.3953$KE6.1812026456@twister1.starband.net...
> Hi all,
>
> Having recently upgraded to General, I decided that I should (learn about
> and) make my own antenna and just finished putting it up. (Especially since
> toy funds are low with a 13 month old running about the house.)
> Unforturnately, it isn't turning out as well as I had hoped. My goal was 1
> antenna that would tune 10m through 80m and maybe even let me try out 160m.
>
> The antenna is a 440' horizontal loop antenna using insulated solid
> conductor 12 gauge wire. Because my property is pretty thickly wooded (and
> sloped), 3 of the corners are trees. The corners of the antenna are about
> 35', 65', 30', and 18' up.
>
> The antenna is fed with 100' of Radio Shack's "high quality" 300ohm
> twinlead. The feedline is terminated at either the 4:1 balun inside my
> MFJ-962C or a 1:1 balun and then fed to the coax inputs on the same tuner.
>
> The feed point is around 20' above ground and I've tried to ensure that the
> twinlead is perpendicular to both the ground and the antenna.
>
> I am unable to tune this antenna very well. On the two bands I'm most
> interested in; 80 and 20m, I can't seem to get it to tune better than 5:1.
>
> Since I'm new at HF operation, here's how I've been trying to tune my
> antenna (hints/tips are appreciated):
> 1) Find clear frequency near where I want to transmit
> 2) Set Transmit and Antenna Dials to midpoint
> 3) Adjust Inductor dial for maximum noise

> 4) At low power (5 or 10w) transmit a 30s long dah
> 5) Adjust Trans & Antenna dials for lowest SWR
> If that doesn't work well, I change the inductor setting and go back to
step
> 4.
>
> What may be a clue to the problem I'm having is that I barely hear a
> difference between the various inductor settings (usually only between max
> and min). I've taken the cover off the tuner, looked for burnt spots,
pulled
> out my multimeter to look for bad connections, and tried cleaning the
> inductor switch.
>
> (The Transmitter and Antenna dials do seem to have an effect, it is just
the
> inductor dial that doesn't.)
>
> Any thoughts as to what's wrong? I did borrow a QRP tuner (Z11) and it can
> tune to about 2:1 but I'd like to be able to use my full 100 watts.
>
> The antenna is the best receiving antenna I've ever had but I didn't learn
> code to listen. :)
>
> Thanks!
>
> -Josh (Nuke the NOT to e-mail)
>
>

745. Re: Which G5RV: Van Gorden or Antennas and More?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 16:46:05 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <se7jqu0tt1p2p585miqsrchhabemdugm49@4ax.com>
Source record: 133133

Hi Doc,

I haven't seen them in person, nor have I used them, so I only know what I have read on the internet. From what I have read, here are some differences...

Antenna's and More G5RV: Weather sealed center portion, where the feedline connects to the horizontals. 30 foot 300 ohm twinlead feedline, with a PL-259 connector at the end. All mat black.

Van Gorden G5RV: The horizontals are natural copper color (according to the photograph on eHam--looks like either bare wire or clear insulation). The feed line is 17 feet of 300 ohm twinlead. They include 100 ft. of RG-8X to attach to the twinlead (using your own balun).

Both get good reviews.

I am leaning toward the Antennas and More version, because it might be stealthier over my roof, and I think I can manage to run the 30 foot twinlead all the way to my transceiver. I just don't know if there are any performance or quality differences that would recommend one over the other.

--Mike

On Sun, 13 Oct 2002 03:39:58 -0500, 'Doc <w5lz@cwis.net> wrote:

>
>
>Mike,
> What's the difference?
> 'Doc

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http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

746. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 16:53:54 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <Cyhq9.3415$dc.1087@nwrddc04.gnilink.net>
Source record: 133135

Notice the 80 degree temperature rise spec...that tells it all. If it's not
a resistor inside, it's something equally lossy.

Joe
W3JDR

"Scanstar Fan" <Fred@Flinstone.net> wrote in message
news:fqugqu8matldgr9arqos65pthq0ubcshmr@4ax.com...
> Things that sound too good to be true usually are but does anyone have
> any comments on this thing?
>
> It's supposed to match almost any antenna on all bands with no
> adjustments.
>
> Cool huh?
>
> http://www.cw.or.kr/hamsack/matchall.htm

747. Re: Measuring voltage, current and phase at VLF Ae feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 17:27:58 UTC
From: richardharrison@webtv.net
Message-ID: <14897-3DA9AD1E-787@storefull-2316.public.lawson.webtv.net>
Source record: 133136

Neoklis wrote:
"---the measurement of voltage, current and phase angle at the feedpoint of a VLF antenna with digital indication."

A vertically polarized antenna is required for VLF. Current indication is given by a thermoelectric ammeter at the feedpoint. Since the antenna impedance has been measured, a current indication is usually sufficient information. A digital voltmeter can be used to read the d-c output of the ammeter`s thermoelectric unit or the output of a similar unit and this can be calibrated to agree with the scale of the thermal ammeter.

A good a-c digital volt meter will read a VLF voltage across the base insulator without serious problems. The meter may have an output for remote indication.

For phase between voltage and current, sample the voltage through a coupling capacitor. Sample the current through a current transformer. The voltage drop across a section of the ground connection could also be used as a current sample for phase measurement.

The voltage and current samples are applied to inputs of a chip designed to produce an output proportional to the phase difference between the two inputs. It`s a phase detector chip. A digital voltmeter can again be used to produce the digital output if the chip doesn`t.

I recall seeing a circuit from a Signetics applications note reproduced in a Graf and Sheets demodulators book and also in the second volume of their "Encyclopedia of Electronic Circuits". Its output was d-c proportional to the phase difference, but the digital meter`s output could again be used for the student`s requirements.

Best regards, Richard Harrison, KB5WZI

748. Re: QRM entering via the antenna connector ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 18:45:22 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <CbidnakbHKa_IjSgXTWc3g@News.GigaNews.Com>
Source record: 133137

Thierry,

I think when you say QRM, you mean QRN (noise). From your description it seems that the shield of the coax is not connected to your radio. This makes the RG58 moot, and it acts like a single wire. If you replace the banana plug with a proper connector that connects to the shield of the RG58, you should be able to eliminate some of the in-building noise that you are picking up. If your radio has a single pin antenna jack, connect the shield of the coax to the ground connector on your radio. Any balun should be at the outdoor end of the coax.

Tam
"Thierry" <lombryt@hotmail.com> wrote in message
news:db35a0c.0210130452.15c3ffca@posting.google.com...
> Hi,
>
> As some of you know it, I 'm using a sloper longwire made of simple
> electrical wire (for the part located outdoors + RG58U indoor) for SWL
> purposes in my LX appartment. One half of the wire, the RG58U, is
> connected to the antenna input of my RTX using a "banana" jack (sort
> of phone jack with only one pole) that enters in the middle of the
> female PL connector attached to the RTX. This connexion is quick and
> easy to un/plug.
>
> As I experiment much QRM, over 57-9 on all bands over 10 Mhz I suspect
> a local generator to create these noises (as noises disappear 10m away
> from the house) that i capture with this antenna system (10m running
> indoor, 15m running tilted outdoors).
>
> Here is my idea:
> I am currently replacing this wire by a windom of about 25 m long
> constituted of isolated wire and a balun ending with a PL female
> connector I will connect to a coax RG58U, this last running indoor
> over 10m at ceiling level to the RTX antenna input jack.
> The shorter part of the windom (about 8m long ?) will run either in
> only one room at ceiling level or will be tied accross the appartment,
> to test.
> The balun will be placed just out of the window, the longer segment
> running outdoors and tilted as a sloper to the end of the garden over
> 15m, attached with an insulator to a fence.
>
> Why this change ? Looking accuretaly the windom and comparing it with
> the longwire, at first sight both antennas are nealy "similar" in
> design, excepting.... i have noted that the windom uses a balun (I
> ignore it for this explanation), an isolated wire (covered with

> plastic), a PL connector and is insulated at each end. The wire itself
> is ticker.
>
> So I suspect that one noise "catcher" is my longwire itself and its
> ordinary design : the wire is not isolated at all and I use a banaba
> jack RTX side.
> I suspect various things:
> - the banana should capture much more QRM than a PL-259 and
> - the isolated wire could probably help me in removing most of the
> noise I currently capture with the indoor part of the wire.
>
> Should the idea to replace the longwire by an isolated windom with PL
> a good one ? In all cases I will test it next days and I will complete
> this mail.
>
> I bet this windom could remove a lot of QRM due to its design, not all
> but to say maybe 3-4 points of the S-meter... You bet ?
>
> Thierry
> http://www.astrosurf.com/lombry/menu-qsl.htm

749. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 20:01:01 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <c3jjquc2jnibgvebsnnepdj1slkogthlc9@4ax.com>
Source record: 133138

On Sun, 13 Oct 2002 11:26:20 -0500 (CDT), richardharrison@webtv.net
(Richard Harrison) wrote:

>CAM, W5DXP wrote:
>"Wouldn`t a quarter-wavelength be better?"
>
>To transmit, yes. To receive, probably not.
>
snip
>
>At 1 mile from a 1 KW broadcast station, something just under 200 mV/m
>is received.

>
>A 20-foot vertical antenna is about 6 meters and capable of 6x10 mV/m at
>20 miles from the 1 KW station.
snip
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

I recognize the source of your numbers, but they don't seem to scale
to actual copper in the air in direct correlation to the term employed
(volts/meter). I put EZNEC to work (perhaps incorrectly) to the
following results. I note nowhere the same literal correlation seen
by a load (receiver) consistent with your statements above, except by
the degree change of 1 mile to 20 miles.

[As an aside, I would note that even though the "sniffer" antenna is
out about 5 wavelengths (at one mile), that the effects of its size
and load will be cast back into the main antenna and its source
(albeit in the decimal places).]

scenario:
ï¿½ wave vertical above 120 ï¿½ wave radials one meter above
real/high accuracy ground;

first antenna excited with 195.5V (1000W on the nose)
at 1000KHz (300M);

second user antenna, located at 1 mile, vertical dipole,
bottom tip one meter above same ground;

second antenna load of 1 KOhm representing one of two
applications:
1. xtal receiver tuned circuit, hi-Z headphones, and diode

2. diode and metering circuit load

for a 1M tall user antenna, the load sees 317ï¿½V
for a 20 foot (6M) tall user antenna, the load sees 8.98mV
for a 10M tall user antenna, the load sees 23.6mV
for a 20M tall user antenna, the load sees 88.4mV
for a 50M tall user antenna, the load sees 553mV
for a 100M tall user antenna, the load sees 3.16V
for a 150M tall user antenna, the load sees 10.35V
for a 200M tall user antenna, the load sees 6.88V

Move the vertical dipole out to the 20 mile mark.

for a 1M tall user antenna, the load sees 3.78ï¿½V
for a 20 foot (6M) tall user antenna, the load sees 107ï¿½V
for a 10M tall user antenna, the load sees 281ï¿½V
for a 20M tall user antenna, the load sees 1.06mV
for a 50M tall user antenna, the load sees 6.58mV
for a 100M tall user antenna, the load sees 37.4mV
for a 150M tall user antenna, the load sees 121.4Mv
for a 200M tall user antenna, the load sees 79.6mV

73's
Richard Clark, KB7QHC

750. Re: QRM entering via the antenna connector ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 20:22:50 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA9D61A.B1E1B453@cwis.net>
Source record: 133139

Thierry,
If I understand your description correctly, the RG-58
coaxial cable is serving no purpose with your 'slopper'
antenna, since the shield of the cable is not connected
to the radio. It is acting the same as if it were replaced
with the same wire used for the antenna. You are, in effect,
using a random length wire in the 'shape' of a slopper.
The insulation of the wire contributes no protection from
noise. It does prevent contact and possibly 'shorting' the
antenna to objects around it that may touch it.
Before changing to the windom antenna try this. Connect
a counterpoise to the outer , threaded, part of the 'PL'
connector on your radio. This 'counterpoise' should be about
a 1/4 wave length long for the frequency you wish to listen to.
(The length is not critical if you do not use it for
transmitting.)
Lay it on the floor of your apartment in almost any configuration,
but not coiled up. See if it makes any difference in the signals
you are hearing. This counterpoise wire acts as a 'ground', or
the 'other half' of the antenna. If reception is improved, you
may not have to put up the windom antenna. If reception is not
improved, then you always have the option of the windom antenna.
The closer your antenna to noise sources, the more noise you
will hear. Having any part of the antenna in-doors is not as
good as having all parts of the antenna out-doors, and away from
the man-made noise sources of a building. That's true even if the
antenna is shorter than it should be (to some extent).
Good luck. I am interested in how the two antennas compare,
and will watch for your next post...
'Doc

751. Re: Which G5RV: Van Gorden or Antennas and More?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 20:32:45 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA9D86D.84879B61@cwis.net>
Source record: 133140

Mike,
I haven't used either one so take this for what it's worth.
It sounds like the electrical properties of both antennas are
approximately the same, so performance should also be about the
same. Construction techniques are important to an extent, but
I think they don't matter much between the two.
If I had to choose between the two, I think price would be
the determining factor. A G5RV antenna was never meant to be
'near' surrounding objects, and those surrounding objects will
affect it's electrical properties. It's impedance will be
different than if it were hung in the clear, and it may not be
even 'close' to what you want if it's erected as you plan. The
only way I know of to see how far 'off' the antenna will be is to
put it up and try it (too many variables to try to compute it).
(If it were easy, it wouldn't be any fun, would it?) I would be
interested in hearing how it turns out.
Good luck...
'Doc

752. Re: kenwoodts50

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 20:38:27 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DA9D9C2.53C0FD68@cwis.net>
Source record: 133141

ON5MJ,
I'm glad you translated, I didn't understand his
original post at all.
I wonder if the fan in the TS-50 is working correctly?
If not, the radio will 'cut back' the output power. I
haven't had the exact thing happen with my TS-50 (yet).
'Doc

753. Re: Helical Antenna Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 20:50:21 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <uqjn2e3ph9ds75@corp.supernews.com>
Source record: 133142

The Kirk antennas were a disaster as far as mechanical design. A little ice and they all came down. He died before his customers could take him to court.

The 3 element 40, 5 element 20, and ? element 15 did work electronically. The moral is that antennas are both mechanical and EM devices.

73 Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net
Office: JCM@McLMcL.Com
<thompson@mindspring.com> wrote in message
news:ao83it$nd3$1@slb7.atl.mindspring.net...
> The best examples of Helical design were the beams manufactured by
Kirk
> W8FYR in the 1970's. Kirk had 2 and 3 element 40 and 2 to 5 el 10 to
20
> beams made from fiberglas. I had a 5 el Kirk on a 42 foot boom. Kirk
used
> copper tape and followed the Helical design in most handbooks. There
was a
> review in QST in 1971.
>
> One Contester(W4YWX now N4PN) had a 5 el 20, 15, and 10 stacked on a
96 foot
> Aluminum tower.
>
> Kirk became a SK and the antenna were made by Viking Instrument in W1
for
> awhile.
>
> The 5el 20 was not as good as the 5 el KLM but much better than a 3 el
mono
> bander.
> I feel with the newer computer modeling for spacing the Kirk
Helicodial Beam
> should approach the gain and front to back of a full size beam. They
sure
> were light weight!
>
> 73 Dave K4JRB
>

>

754. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 20:59:32 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <UpmdnayxeLrXBTSgXTWc2Q@News.GigaNews.Com>
Source record: 133143

Peter,

Maybe you want to tell us what you are trying to do. I had jumped to the conclusion that you were interested in stations far away. A HiFi radio is probably the worst possible choice for that, because it is designed to have good fidelity, not good selectivity. The two are opposites. For local stations, the loop antenna that came with it has a lot going for it.

Tam
"Peter Ward" <ptaak@yahoo.com> wrote in message
news:f235099a.0210122303.344f05a8@posting.google.com...
> I bought a stereo that (surprise) actually has a functional plug in
> for an external AM antenna...something I thought all manufacturers had
> given up on. It was supplied with a small plastic loop bound wire am
> antenna to use which is ok, but I want a stand alone vertical am
> antenna so it need not be adjusted for direction. Any advice?
>
> Peter Ward

755. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 22:05:23 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <D6mq9.54680$VQ2.12626179@twister.midsouth.rr.com>
Source record: 133144

In reference to lossy. You mean the device or the poor fellas wallet?

Ken

"W3JDR" <joe@roccis.com> wrote in message
news:Cyhq9.3415$dc.1087@nwrddc04.gnilink.net...
> Notice the 80 degree temperature rise spec...that tells it all. If it's
not
> a resistor inside, it's something equally lossy.
>
> Joe
> W3JDR
>
>
> "Scanstar Fan" <Fred@Flinstone.net> wrote in message
> news:fqugqu8matldgr9arqos65pthq0ubcshmr@4ax.com...
> > Things that sound too good to be true usually are but does anyone have
> > any comments on this thing?
> >
> > It's supposed to match almost any antenna on all bands with no
> > adjustments.
> >
> > Cool huh?
> >
> > http://www.cw.or.kr/hamsack/matchall.htm
>
>

756. Re: Antenna Sought 10m/6m/2m/70cm

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 22:32:08 UTC
From: "Chip G." <n.1.m.i.e@snet.net>
Message-ID: <1310200021832268348%n.1.m.i.e@snet.net>
Source record: 133145

Any ideas? I'm interested in the new Yaesu quad band, but doesn't seem worthwhile unless I can find an appropriate quad-band antenna...

Need one for 10m, 6m, 2m and 70cm.

Thanks,

--
--N1MIE

757. Re: kenwoodts50

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 22:53:56 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3da9f988$0$211$ba620e4c@news.skynet.be>
Source record: 133146

I hope he can understand your reply, probably yes. It seems he has got the same replies on a French NG but maybe he was expecting another explanation.

"Karamel, au cas o&#65533; tu n'aurais pas compris, tu peux toujours m'envoyer un mail en direct."

73 de ON5MJ - Jacques.

758. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 23:07:30 UTC
From: Paul N3EOP <n3eop@arrl.or.callsign.net>
Message-ID: <Xns92A6A408A902Fn3eophotmailcom@64.164.98.6>
Source record: 133147

"Dan/W4NTI" wrote:

> Did these guys also design the BW folded dipole? You know the one
> that goes from DC to Daylight with a flat SWR and uses a resistor?

Well, the B&W actually works, and is based upon sound antenna theory. Check into the "T2FD" (tilted terminated folded dipole) for an explanation on how it works.

Up high and in the clear, the B&W 1.8-30 works well on 40-10, and everywhere in between. It actually shows some gain over a dipole at 20 and above, since the entire antenna radiates. (Close to 200 feet of Copperweld in the air...) Passable on 80, and some have said it's a decent receive antenna on 160 when mounted as a sloper. (If interested, see: http://www.eham.net/reviews/detail/1016)

But as for the Matchall, it's definitely a "P.T. Barnum device".

759. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 23:10:07 UTC
From: richardharrison@webtv.net
Message-ID: <29792-3DA9FD4F-292@storefull-2315.public.lawson.webtv.net>
Source record: 133148

Richard Clark, KB7QHC wrote:
"I recognize the source of your numbers, but they don`t seem to scale to actual copper in the air in direct correlation to the term employed (volts / meter)."

I said: ---"something less than 200 mV/m at one mile from a 1 KW broadcast station is received. At 20 miles this is 10 mV/m."

The above came off the top of my head. The number in my mind was and is 196 mV/m for radiation from a 1/4-wave radiator. Don`t know where it came from. It`s been in there too long.

I`ve now gone to the books, starting with the 2nd edition of Terman`s "Radio Engineering" from 1937. Sure enough, on page 597 is Fig. 333 for strength of ground wave as a function of distance and the first chart confirms my statement. Indeed, something just under 200 mV/m is the strength at one mile.

Griffith confirms my number too in Fig. 42-2 on page 346 of "Radio-Electronic Transmission Fundamentals". He also has a 1/2-wave radiator represented on the same figure which lays out just under 250 mV/m at one mile for 1 KW input to the antenna. On page 347, Griffith says: "---the field intensity at 1 mile rises (vs, a short radiator`s 186 mV/m at one mile) to 196 mV/m when the tower is 1/4 wvelength high---."
Hey! that`s my number. I`m certain my memory was accurate this time.

As for the strength at 10 miles, it is simply the strength at 1 mile divided by 10. The volts per meter decline linearly with distance. It`s the power in the wave cross section that declines by the square of the distance. At 10 miles the power in the wave is 1/100 if the volts are 1/10. This ain`t rocket science, as they say.

The rule is that if you optimally place a 1-meter wire in the field, the volts induced in it equal the field strength in volts per meter. Half the power in the wire is re-radiated if the wire`s radiation resistance sees a matched load. 50%. That`s the most a load can get from the wire. Any other load will cause more of the power to be re-radiated. A no-load on the wire will cause 100% re-radiation.

But as long as the vertical receiving antenna is a very small fraction of a wavelength, the voltage generated by r-f sweeping across it is proportional to its length. Six times the length of wire produces nearly six times the voltage.

I tried to cover the earth loss versus the inverse distance decline by specifying sea water as the ground wave path. That works at 10 miles

according to a check of the propagation curves.

Broadcast band wavelengths in the USA are as long as 545.45 meters, or 0.339 miles. As long as you have more than 2 wavelengths or more separation between vertical antennas, they have nearly negligible mutual impedance. One caveat is an extraordinarily large antenna array. In the case of a 1/4-wave radiator at a mile`s distance, this is no problem.

I was not trying to be precise because there are usually conditions to upset precision. Radial field measurements are made at many distances for this reason.

I often err, but I don`t see any mistakes in the posting Richard Clark refers to.

Best regards, Richard Harrison, KB5WZI

760. Re: kenwoodts50

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-13 23:57:27 UTC
From: George Kinzer <horseflygk@worldnet.att.net>
Message-ID: <HLnq9.20740$ue4.1341566@bgtnsc04-news.ops.worldnet.att.net>
Source record: 133149

sounds like heat sink, make sure its tight.
if it aint tight , it aint right..

--
If first you don't succeed, do the same thing again...see what happens

�.��� ��)) -:�:-
�.�� .����))
George Kinzer
((��.�� ..��
-:�:- ((��
�.�

Those who want to be successful, will find a way,
those that don't, will find an excuse!

761. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 00:10:03 UTC
From: n2ey@aol.com
Message-ID: <20021013201003.03046.00001251@mb-fy.aol.com>
Source record: 133150

In article <aoah6s$c7d$1@slb3.atl.mindspring.net>, "Dan/W4NTI"
<w4nti@mindspringnospam.com> writes:

>Did these guys also design the BW folded dipole?

I dunno, but the B&W folded dipole is actually a better antenna on most
frequencies!

W4RNL (Cebik) did an exhaustive analysis of two versions of the
resistive-loaded folded dipole on his website . Too bad so many folks don't
read it.

>You know the one that goes
>from DC to Daylight with a flat SWR and uses a resistor?
>
Yep. A version of the "T2FD" - "Tilted, Terminated Folded Dipole". Originally
designed to be installed as a sloper and fed with 600 ohm line - circa 1947. It
was meant to be a nondirectional nonresonant RECEIVING antenna.

>They also mention not to be concerned about the lower received
>signals.....hmmmmmm.

'zactly.

Only thing they didn't say was how you can enjoy the challenge of QRPp with any
100 watt transceiver - by using their antenna.

73 de Jim, N2EY

762. Re: TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 00:14:32 UTC
From: tmgroatatpeakpeakdotcom
Message-ID: <3daa0b35.7885115@news.peakpeak.com>
Source record: 133151

On Wed, 9 Oct 2002 08:48:10 -0500 (CDT), richardharrison@webtv.net
(Richard Harrison) wrote:
>... This first 10 KW transmitter was soon joined by many 50 KW and
>100 KW transmitters in permanent settings.
>
>Point is, the trees would have been detrimental to the shortwaves so
>they were cut.
>
Another point is, 100KW transmitters can arc to the trees and set them
on fire if you let any branches touch the antenna! ;^)

--KR0U

763. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 00:32:07 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <3DAA1099.309@adelphia.net>
Source record: 133152

Dan/W4NTI wrote:

> I actually did that once. I put a length of zip cord on a light bulb.
> Taped it to a broomstick. Put it outside my bedroom window. Hooked it to
> my Knight-kit T-50 transmitter and actually worked people on it. j
>
> My best DX was from NE Ohio to NY state on 40cw.

Well then, why don't you get a patent and sell the darn things, Dan? ;^)

- Mike KB3EIA -

764. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 00:42:36 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <8m3kqucbo1nakc56rhkjvacemlpv060afq@4ax.com>
Source record: 133153

On Sun, 13 Oct 2002 18:10:07 -0500 (CDT), richardharrison@webtv.net
(Richard Harrison) wrote:

>
>I often err, but I don`t see any mistakes in the posting Richard Clark
>refers to.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

No mistakes were pointed out. Rather, I performed a simple receive
antenna test at the specified distance from a classic AM transmission
scenario and nowhere in the model did the load ever exhibit 196 mV/M
characteristics - depending on what is meant by this "196 mV/M." Is
that meter of wavelength, meter of physical length, meter as a portion
of a quarterwave length antenna, or one meter absolute size antenna?

If you held your fantastic, magical RF Voltmeter probes one meter
apart, would you measure 196mV at a distance of 1 mile from the 1KW
source?

>scenario:
> ï¿½ wave vertical above 120 ï¿½ wave radials one meter above
> real/high accuracy ground;
>
> first antenna excited with 195.5V (1000W on the nose)
> at 1000KHz (300M);
>
> second user antenna, located at 1 mile, vertical dipole,
> bottom tip one meter above same ground;
>
> second antenna load of 1 KOhm representing one of two
> applications:
> 1. xtal receiver tuned circuit, hi-Z headphones, and diode
> 2. diode and metering circuit load
>
> for a 1M tall user antenna, the load sees 317ï¿½V
0.317mV/M not 196 mV/M (a -56dB discrepancy from the beginning)
> for a 20 foot (6M) tall user antenna, the load sees 8.98mV
1.5mV/M not 196 mV/M NOR 6 X 196 mV/M
> for a 10M tall user antenna, the load sees 23.6mV
2.36mV/M not 196 mV/M NOR 10 X 196 mV/M
> for a 20M tall user antenna, the load sees 88.4mV
4.42mV/M not 196 mV/M NOR 20 X 196 mV/M
and so on up the line.

73's
Richard Clark, KB7QHC

765. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 00:47:23 UTC
From: Dan/W4NTI <w4nti@mindspringnospam.com>
Message-ID: <aod465$n2d$1@slb4.atl.mindspring.net>
Source record: 133154

BINGO me boy....BINGO.

I would like to see a comparison with say a simple half wave dipole. Not theory....actual antenna range stuff.

Then I will believe it. At the moment I feel that if it has a resistor in it...it has LOSS. And that translates to lower efficiency...in my mind anyway.

Prove me wrong. Where is the antenna range testing?

Dan/W4NTI

"N2EY" <n2ey@aol.com> wrote in message
news:20021013201003.03046.00001251@mb-fy.aol.com...
> In article <aoah6s$c7d$1@slb3.atl.mindspring.net>, "Dan/W4NTI"
> <w4nti@mindspringnospam.com> writes:
>
> >Did these guys also design the BW folded dipole?
>
> I dunno, but the B&W folded dipole is actually a better antenna on most
> frequencies!
>
> W4RNL (Cebik) did an exhaustive analysis of two versions of the
> resistive-loaded folded dipole on his website . Too bad so many folks
don't
> read it.
>
> >You know the one that goes
> >from DC to Daylight with a flat SWR and uses a resistor?
> >
> Yep. A version of the "T2FD" - "Tilted, Terminated Folded Dipole".
Originally
> designed to be installed as a sloper and fed with 600 ohm line - circa
1947. It
> was meant to be a nondirectional nonresonant RECEIVING antenna.
>
> >They also mention not to be concerned about the lower received
> >signals.....hmmmmmm.
>
> 'zactly.
>
> Only thing they didn't say was how you can enjoy the challenge of QRPp
with any
> 100 watt transceiver - by using their antenna.
>

> 73 de Jim, N2EY
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.401 / Virus Database: 226 - Release Date: 09-Oct-02

766. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 01:38:51 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aod77b$gb9$0@208.207.71.159>
Source record: 133155

Dan Richardson wrote:
>
> On 13 Oct 2002 04:26:40 GMT, Dick Carroll <dixie@townsqr.com> wrote:
>
> > And yes, Dan, unfortunately and strictly on your own, you're showing
> >all too many of the characteristics of a horses ass.
>
> Goodbye

Suits me fine. When someone extracts a single sentence from a thread and converts it to a stand-alone statement which it was never intended to be nor even can be supported on its own, for the express purpose of harrasing the poster, that qualifies as Horsesa$$ Usenet Trolling. You and Ian did exactly that. If that's what it is, that's what it is. Live with it.

767. Re: How come there are shallow nulls with dipoles on other freqs??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 01:48:08 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aod7oohcc0@208.207.71.159>
Source record: 133156

Wouldn't that seem to mean the other resonances were at a frequency
where the Q of the antenna was lower? You'll probably see that they are
also wider and more shallow.

Dick

StarGazer wrote:
>
> Heard of them but they aren't deeply nulled like the first one.
>
> Dick Carroll wrote:
>
> > StarGazer wrote:
> > >
> > > With my 160 m Inverted-L I see a minor null in the SWR on
> > > freqs other than 160 m.
> > >
> > > Whats up with that??
> >
> > You never heard of multiple resonances? They're not uncommon.

768. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 01:49:48 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aod7rshcc1@208.207.71.159>
Source record: 133157

ON5MJ wrote:
>
> I thought this kind of dialog was reserved to French NGs.
>
> 73 de ON5MJ

Well, I was sure surprised to find that sort of usenet trolling present
on this NG.

Dick

769. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 02:21:13 UTC
From: richardharrison@webtv.net
Message-ID: <1885-3DAA2A19-818@storefull-2312.public.lawson.webtv.net>
Source record: 133160

Richard Clark, KB7QHC wrote:
"If you hold your fantastic, magical RF Voltmeter probes one meter apart, would you measure 196 mV at a distance of 1 mile from the 1 KW source?"

If the probes were attached to the opposite ends of 1 meter of vertical wire without upsetting the interception of the wave, you should get about 196 millivolts if the earth loss is small and disturbances are insignificant.

Field intensity meters for AM broadcast work are usually a little different from those used for H-F field intensity measurements. H-F field meters are usually equipped with a specific dipole used at considerable height (25 or 30 ft) above the earth to avoid some of the ground effects on the measurement.

A medium-wave antenna couldn`t be elevated enough to make any difference in the measurement disturbances, due to the long wavelength. So, the measurement is made near ground level, and it is the ground wave that is of importance. The antenna used with a medium-wave field strength meter is usually a loop antenna, placed for vertical polarization. This is often built into the lid of the meter and removable if desired.

An internal calibration oscillator is usually included to trim the gain of the receiver / field strength meter so that its indication becomes a measurement.

The measurement man is often rechecking at prescribed locations chosen for few pitfalls. Otherwise, he needs to be sure he has found a suitable site and properly locates it on the map.

Best regards, Richard Harrison, KB5WZI

770. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 02:28:32 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoda4gmnl0@208.207.71.170>
Source record: 133158

Stargazer, now that all the noise has subsided, and the trolls have
been shooed from this thread, I see that no one ever gave you a decent
answer to your questions. Allow me to me now give it a more complete
treatment:

StarGazer wrote:
>
> How far off resonance do you have to be before using coax
> will significantly affect the antenna system performance.
> I'm still using a tuner to get a 1:1 SWR.
>
> I have about 4:1 on the bottom of 80 m and tune it out with
> the tuner.
>

Within a single band, when you're using a single band dipole tuned at
the line input, there is nothing to be gained by changing to ladderline.
Your very minor loss from band edge to band edge while matching the
antenna to 1:1 with your tuner is insignificant, and changing it won't
save you anything of note. That was the message Walt Maxwell gave in his
book "Reflections". In fact Walt used that method when he designed the
antenna systems for some of the weather satellites.

> Also.... For 30 m what would be the best off resonance
> antenna... A 40 m dipole, 80 m dipole or an Inverted-L for
> 160 m.

That depends on what you want to do. Using an 80 meter dipole will give
you some gain in some directions, and a shallow null in others. If you
want best all around coverage I'd use a 40 meter dipole.

> I swear I see a shallow null around 10 MHz with the Inv-L???

Most antennas will have some resonances at various frequencies other
than their harmonics, but they usually aren't useful. But that one might
be. I'd try tuning the Inverted L to it and see how things load up. You
might have your 30 meter antenna requirements met already and it might
just work out for you on 30. Neither you nor I will know until you try
it.

You can also just parallel a 30 meter dipole with your 80 meter at the
feedpoint and tie it off wherever you can find, in whatever
configuration you can easily arrange. It will work fine.

Dick

771. Hamsticks used as dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 02:39:02 UTC
From: cbhoelzel <n4bjx@naxs.com>
Message-ID: <3DAA2E46.F4368BB@naxs.com>
Source record: 133159

Has anyone taken two Hamsticks and mounted them horizontally with one fed by the center of the coax feedline and the other connected to the feedline braid?

How well have they worked for you, as compared to just one mounted vertically?

Thanks,
Chuck
N4BJX

772. Re: Multiband Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 02:53:46 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aodbjq$qa9$0@208.207.71.170>
Source record: 133161

Ken N4VSD wrote:
>
> Hello all,
>
> Anyone know where I can find the formulae for building a multiband dipole
> using several dipoles connected to the same feedpoint? Gets a little
> complicated when building an antenna for six different frequencies between
> 4.5 and 18MHz. Pruning would be a lot easier if you have an approximate
> length for each dipole. I remember seeing an article in QST several years
> ago.
>

I don't know of any standard formula in use for that purpose. I've used paralleled dipoles a lot, and usually cut them to the standard halfwave dipole formula. That will make them all a bit long since there's some added capacitive loading on each from the presence of the others - more pronounced on the shorter/higher frequency dipoles than the lower. But since I like slightly long antennas when using a tuner I don't worry about it and the autotuner in the Icom doesn't protest at all, just tunes them right up.

Dick

773. Re: How come there are shallow nulls with dipoles on other freqs??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 03:15:44 UTC
From: richardharrison@webtv.net
Message-ID: <17689-3DAA36E0-810@storefull-2313.public.lawson.webtv.net>
Source record: 133162

Dick Carroll wrote:
'Wouldn`t that seem to mean the other resonances were at a frequency where the Q of the antenna was lower?"

That is probably a result of more wire length meaning less energy reflected back to the feedpoint. So, more energy is radiated and lost in heat and the disappearance of this energy increases resistance and lowers Q.

The antenna has a characteristic impedance determined by the L/d of its wire. This could be anything from just under 100 ohms to just under 1000 ohms. If there were no reflection from the far ends of the antenna, the antenna`s impedance would be based on its Zo. Instead, it`s based on the combination of incident and reflected waves in 1/2-wave dipoles.

A dipole many wavelengths long would have a high impedance like a rhombic of 600 ohms or so, and for the same reason. It would be based on the surge impedance of the antenna. Antennas with high resistance and low reactance, like the rhombic, have a low Q.
The downside of the long dipole would be its lousy pattern.

Best regards, Richard Harrison, KB5WZI

774. Re: TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 04:16:54 UTC
From: richardharrison@webtv.net
Message-ID: <17689-3DAA4536-820@storefull-2313.public.lawson.webtv.net>
Source record: 133165

Tim Groat wrote:
"Another point is, 100 KW transmitters can arc to the trees and set them on fire if you let any branches touch the antennas!"

The antennas were 1/2-wave above ground level, but just the 600-ohm transmission lines were hot enough. I calculate the peak voltage at 100% modulation (a frequent event with the audio compressors we used) at 21,900 volts. You could almost reach up and touch the feedlines. I accidently did touch one of the 50 KW lines and once burned was twice shy!

The cleared trees were cork oaks and supplied fuel for our fireplaces for years.

Best regards, Richard Harrison, KB5WZI

775. Re: Re: Which G5RV: Van Gorden or Antennas and More?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 04:33:49 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <1uhkqu8vqbr6qvmh7farcr75l492crvog3@4ax.com>
Source record: 133163

Thanks, Doc.

I have had a couple responses similar to yours, mentioning that a wire dipole is meant to be out in the open, so the results might not be as expected. At least if I try it and it doesn't work well, I can take it down and try it somewhere else. Worst case, it would be a relatively inexpensive education.

It might be a while, but I will post the results.

--Mike

On Sun, 13 Oct 2002 15:32:45 -0500, 'Doc <w5lz@cwis.net> wrote:

>
>
>Mike,
> I haven't used either one so take this for what it's worth.
>It sounds like the electrical properties of both antennas are
>approximately the same, so performance should also be about the
>same. Construction techniques are important to an extent, but
>I think they don't matter much between the two.
> If I had to choose between the two, I think price would be
>the determining factor. A G5RV antenna was never meant to be
>'near' surrounding objects, and those surrounding objects will
>affect it's electrical properties. It's impedance will be
>different than if it were hung in the clear, and it may not be
>even 'close' to what you want if it's erected as you plan. The
>only way I know of to see how far 'off' the antenna will be is to
>put it up and try it (too many variables to try to compute it).
>(If it were easy, it wouldn't be any fun, would it?) I would be
>interested in hearing how it turns out.
> Good luck...
> 'Doc

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776. RFI problem on 75Mtrs in 95 Dodge Caravan

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 04:37:56 UTC
From: Dennis Dworak <ddworak@itol.com>
Message-ID: <3DAA4A24.49D795CB@itol.com>
Source record: 133164

Help
I have a 95 Dodge Caravan and had an outbackerhp on a
magnetic mount on the roof. I run a Yaesu FT-900 feeding
an Ameritron ALS-500mobile amp. With the outbacker on
the roof I could run full power on all bands with no problem.

Recently I sold the outbacker high power and installed a
Predator (N9JMX) screwdriver antenna at the left rear corner
of my van. I can run full power (500 watts) on 40 mtrs and on
20 mtrs etc with no problem. But when I try to run high power
on 75 mtrs it kills my engine immediately. I have very good
short grounds to my equipment. I used the power control on
the ft-900 and can run the power up to 200 watts with no
problem. As soon as I get over 200 watts it kills the engine.
I removed my center mounted glove box so that the vehicle
computers and wiring are exposed and tried gound cables on
the computers and even tried aluminum foil shielding of the
computers and wiring to them but it didn't help. Also when I
transmit at high power there is no dash lights flickering or
any other strange things happening. It just kills the engine
dead like you turned off the switch. I don't know
where to go next. Any suggestions of web sites or help places
anyone can give me would be appreciated. This is a very
frustating problem. 73

Denny
K9AAV

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

777. Re: WinXP v. Win98

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 08:37:35 UTC
From: Jedi <codehound@indy.rr.com>
Message-ID: <jnvq9.82161$Cz.9521924@twister.neo.rr.com>
Source record: 133166

I would say because Windows 98 isnt supported anymore, so fixes for various things wont be displayed. All Windows OS's for the most part have issues, so after a few years they say forget it and move on. Xp is a little bit more resourse intensive. But XP does handle Multi monitor video cards a LOT better than win98. I run 4 Linux boxes and a Windows 2000 Server box or to, so take what I say for what you will!

Jeremy

" Uncle Peter" <radioconnectionNO@cox.netSPAM> wrote in message news:PX5q9.205751$TX5.8554735@news1.east.cox.net...
> Hello Wes
>
> Why would you want an operating system that doesn't work
> with half of your software, especially if your system is stable
> now? If it ain't broke, don't fix it!
>
> 73
>
> Pete
>
> "Wes Stewart" <n7ws@nowhere.com> wrote in message
> news:2si0qu0vej2q6ckmkv2j24ik7svohbbovp@4ax.com...
> > Sorry to be OT but since there are a lot of computer savvy folks here
> > I figured I'd ask a few questions here instead of some group where I
> > would be a newbie.
> >
> > Is there any compelling reason to migrate to XP (pro) from Win98? I'm
> > in the process of "upgrading" but I feel "degraded" instead.
> >
> > Note: "Stability" is not a compelling reason. The latest example I
> > observed of superior stability was when the XYL asked me to drive her
> > someplace and I told XP to shut down the computer. It dutifully
> > popped up a screen that said "Windows shutting down" so I left. When I
> > returned four hours later, it was still "shutting down." But maybe
> > that's what Bill Gates means by stable.
> >
> > Half of my software doesn't work with XP, and of the half that does
> > often I have to install it twice on the two "virtual machines" that
> > I've tried to set up.
> >
> > I used windows update to install Service pack 1, which only took four
> > hours to download and install and it appears that if I blow away the
> > operating system and want to reinstall it I get to do the four hour
> > drill again because the service pack wasn't actually placed on my hard

> > drive for backup.
> >
> > I put this on a new hard drive, which I partitioned into two logical
> > drives. According to the best info I could find I first installed
> > Win98 on one partition, then XP on the other. XP then made a boot.ini
> > file that is supposed to allow dual booting. Not on your life.
> >
> > I previously used Zone Alarm with Win98. Is the XP "firewall"
> > adequate or do I need Zone Alarm too?
> >
> > I seem to be spending half of my waking hours maintaining a computer,
> > which is supposed to be a tool, not an avocation.
> >
> > Should I buy a Mac?
> >
> >
> > 73,
> >
> > Wes
> >
>
>

778. Re: Hamsticks used as dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 08:56:30 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DAA86BE.FF2CC9B9@cwis.net>
Source record: 133167

Chuck,
Yes, it's done fairly often, they even make a
bracket to do it with. How well does it work?
That just depends on what you expect. It will
have a fairly narrow usable bandwidth on the lower
bands, widening as frequency goes up. The same
as a mobile antenna. So, all things considered,
they work pretty good...
'Doc

779. Re: RFI problem on 75Mtrs in 95 Dodge Caravan

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 09:00:04 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DAA8794.805DE267@cwis.net>
Source record: 133168

Denny,
I think you're going to have to live with the
200 watts on 80 meters. Sounds like any more than
that and your Dodge's CPU 'bites' the dust. There
may be some way to shield the CPU from RF, but it
isn't going to be a 'fun' project to do...
'Doc

780. Re: RFI problem on 75Mtrs in 95 Dodge Caravan

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 10:42:32 UTC
From: Dean Elwood <dean@legallyspeaking.co.uk>
Message-ID: <aoe72o$mv0$1@knossos.btinternet.com>
Source record: 133019

Are you sure it's RFI?

There couldn't be anything strange happening with current draw at that
frequency due to antenna and amp combination could there?

I used to run a big inverter off a boat engine and certain inductive loads
used to kill the engine simply by the massive sudden current draw creating
too much resistance in the alternator!

D

"'Doc" <w5lz@cwis.net> wrote in message news:3DAA8794.805DE267@cwis.net...
> Denny,
> I think you're going to have to live with the
> 200 watts on 80 meters. Sounds like any more than
> that and your Dodge's CPU 'bites' the dust. There
> may be some way to shield the CPU from RF, but it
> isn't going to be a 'fun' project to do...
> 'Doc

781. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 10:57:45 UTC
From: n2ey@aol.com
Message-ID: <20021014065745.12729.00001255@mb-cs.aol.com>
Source record: 133020

In article <aod465$n2d$1@slb4.atl.mindspring.net>, "Dan/W4NTI"
<w4nti@mindspringnospam.com> writes:

>BINGO me boy....BINGO.
>
Thought you'd like that.

>I would like to see a comparison with say a simple half wave dipole. Not
>theory....actual antenna range stuff.

>Then I will believe it.

Believe what? The T2FD is a better antenna than the Maxcom/Match-all at most
frequencies. But neither is near as good as half-wave dipole on its design
frequency!

> At the moment I feel that if it has a resistor in
>it...it has LOSS. And that translates to lower efficiency...in my mind
>anyway.

In reality, too. Why do you think the "Match All" is rated for 80 degree
temperature rise?
>
>Prove me wrong. Where is the antenna range testing?

Good simulation will tell the same things. W4RNL's data shows the T2FD to be
less efficient than a simple dipole - often much less efficient.

But here's the rub: It's a decibel thing.

Suppose a particular station using a half-wave dipole (efficiency almost 100%)
is heard S9+20 dB over a particular path. Now suppose the efficient half-wave
dipole is replaced by a resistive loaded antenna of the same pattern with an
efficiency of just 1% (that means 99% of the transmitter power is turned into
heat rather than being radiated). Suppose nothing else changes. The S9+20
signal will drop to S9.

Even a blind squirrel finds some nuts. And a broken clock is right once or
twice a day.

73 de Jim, N2EY
>
>"N2EY" <n2ey@aol.com> wrote in message
>news:20021013201003.03046.00001251@mb-fy.aol.com...
>> In article <aoah6s$c7d$1@slb3.atl.mindspring.net>, "Dan/W4NTI"
>> <w4nti@mindspringnospam.com> writes:
>>
>> >Did these guys also design the BW folded dipole?

>>
>> I dunno, but the B&W folded dipole is actually a better antenna on most
>> frequencies!
>>
>> W4RNL (Cebik) did an exhaustive analysis of two versions of the
>> resistive-loaded folded dipole on his website . Too bad so many folks
>don't
>> read it.
>>
>> >You know the one that goes
>> >from DC to Daylight with a flat SWR and uses a resistor?
>> >
>> Yep. A version of the "T2FD" - "Tilted, Terminated Folded Dipole".
>Originally
>> designed to be installed as a sloper and fed with 600 ohm line - circa
>1947. It
>> was meant to be a nondirectional nonresonant RECEIVING antenna.
>>
>> >They also mention not to be concerned about the lower received
>> >signals.....hmmmmmm.
>>
>> 'zactly.
>>
>> Only thing they didn't say was how you can enjoy the challenge of QRPp
>with any
>> 100 watt transceiver - by using their antenna.
>>
>> 73 de Jim, N2EY
>>
>

782. Re: QRM entering via the antenna connector ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 12:43:11 UTC
From: richardharrison@webtv.net
Message-ID: <14897-3DAABBDF-922@storefull-2316.public.lawson.webtv.net>
Source record: 133021

Uncle Peter wrote:
"Even if you use coax for the indoor portion of the run, noise can couple to the outside of the braid and travel back to the antenna wire in the common mode fashion."

Yes. More simply, unless the coax shield is grounded, it`s as if the shield wasn`t there.

If grounded, the shield may do bad things to the signal due to mismatch between the antenna and coax.

Banana plugs are OK. The UHF coax receptacle was designed to accept a banana plug. But for the coax to be effective, a shield connection is needed too.

Best regards, Richard Harrison, KB5WZI

783. Re: Re: Which G5RV: Van Gorden or Antennas and More?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 13:06:32 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <aoeffq$13c2@r02n01.cac.psu.edu>
Source record: 133022

Hi All:

Gee guys, a G5RV is so simple, why would any ham buy one. There are no

rare, hard to get parts, the twin lead to antenna wire doesn't even need to

be water proof. The insulators can be made out of any plastic you can find.

If one spent $10 on parts they over spent.

I'm just blown away by guys buying dipoles.

--
John Passaneau, W3JXP
Physics Dept. Electronics Shop
Penn State University
104 Davey Lab, University Park , Pa. 16802
814.863.4297, jxp16@psu.edu

"Mike" <scifiguy at starband dot net> wrote in message
news:1uhkqu8vqbr6qvmh7farcr75l492crvog3@4ax.com...
> Thanks, Doc.
>
> I have had a couple responses similar to yours, mentioning that a wire
> dipole is meant to be out in the open, so the results might not be as
> expected. At least if I try it and it doesn't work well, I can take
> it down and try it somewhere else. Worst case, it would be a
> relatively inexpensive education.
>
> It might be a while, but I will post the results.
>
> --Mike
>
Suff cut because my stupid mail server watches the included text to quoted
text ratio.

784. Lossy antenna joke

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 13:39:07 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <%Nzq9.55925$VQ2.12830829@twister.midsouth.rr.com>
Source record: 133023

"The more loss my antenna has on transmit the better." Tell that to a room full of hams... They usually go nuts! "I dont want a lossy antenna!" Then ask... "Where do you want the RF to go if the antenna keeps it?" Use it at a club meeting and have loads of fun. Hi Hi

Ken

785. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 13:40:55 UTC
From: Brent <brent316@yahoo.com>
Message-ID: <HPzq9.52364$aU3.3227755@typhoon.kc.rr.com>
Source record: 133024

Both

-Brent

"Bob Miller" <bamiller@texas.net> wrote in message
news:kIOnPQQoCV=+tG57Okcwu2pHFBuD@4ax.com...
> "Brent" <brent316@yahoo.com> wrote:
>
> >Well I was told it helps a little with the bandwidth and should be
stronger
> >compared to standard copper wire. Also I happen to have about 200 hundred
> >feet of the stuff.
>
> Are you using the center conductor only, or the braid, or both?
>
> Bob
> k5qwg
>
> >
> >Brent
> >
> >
> >"'Doc" <w5lz@cwis.net> wrote in message
news:3DA39F81.C4DC7EB9@cwis.net...
> >> Brent,
> >> Why are you using coax for the antenna? Is it
> >> because you have more of it than you know what to
> >> do with, or because there's supposed to be some
> >> kind of advantage to it?
> >> 'Doc
> >
>

786. Re: Lossy antenna joke

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 13:56:36 UTC
From: arrow146@aol.com
Message-ID: <20021014095636.09799.00001521@mb-fs.aol.com>
Source record: 133025

<< Subject: Lossy antenna joke
From: "Ken N4VSD" REMOVECAPSn4vsd@yahoo.com
Date: Mon, Oct 14, 2002 6:39 AM
Message-id: <%Nzq9.55925$VQ2.12830829@twister.midsouth.rr.com>

"The more loss my antenna has on transmit the better." Tell that to a room full of hams... They usually go nuts! "I dont want a lossy antenna!" Then ask... "Where do you want the RF to go if the antenna keeps it?" Use it at a club meeting and have loads of fun. Hi Hi

Ken >>

Good One. I like it.

73 Al Lowe N0IMW

787. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 14:20:32 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoejrg$393$0@208.206.142.79>
Source record: 133026

N2EY wrote:
>
> Good simulation will tell the same things. W4RNL's data shows the T2FD to be
> less efficient than a simple dipole - often much less efficient.

But, strange as it seems, in some uses at some frequencies, it can
radiate more signal that a halfwave dipole! IE at the higher HF
frequencies it becomes a gain antenna for some directions, and can
actually beat a dipole for some uses in some orientations.

> But here's the rub: It's a decibel thing.
>
> Suppose a particular station using a half-wave dipole (efficiency almost 100%)
> is heard S9+20 dB over a particular path. Now suppose the efficient half-wave
> dipole is replaced by a resistive loaded antenna of the same pattern with an
> efficiency of just 1% (that means 99% of the transmitter power is turned into
> heat rather than being radiated). Suppose nothing else changes. The S9+20
> signal will drop to S9.
>

Yep, Jim, and that's a far worse case that most of the usual operation
experienced by users of a T2FD. I had occasion to use one quite a lot at
work, in a non-amateur setting, and you'd be surprised how well they
work when you aren't involved in "thinking about the technical aspects"
of them. I know I was sure surprised. I met a statewide emergency
communications HF net on a 8mhz frequency, where every station ran 100
watts to a B&W T2FD. If I hadn't known what they were using I'd have
never guessed from the way it all worked. Signals from all over the
state were always good and even the most distant stations up to 300
miles away were always good quality. Of course it was a dedicated
frequency without QRM. But the things worked MUCH better than I had
expected.
That's why the B&W's were used so extensively in US Government
operations. Users had to do no more than hang the darn thing, connect
the coax feedline, and go on the air, almost always successfully. Proves
the point that antennas of the best efficiency is not always what you
need. Sometimes it's something simple to use that works well enough.
These things can be used by people with *no* technical knowledge, a
radio version of 'plug and pray'. <g>

If the thing happens to radiate half the RF you feed it, chances are
you'll never miss the other half unless you're watching an S-meter and
happen to be a picky ham.<g>

My experience with them was the reason I bought one when it showed up
at a really good price at a hamfest. So far I've not used it, but have

it for whenever I might want to, and I can experiment with changes to its configuration as I want. And the matching transformer and terminating resistor are worth what I have in it.

> Even a blind squirrel finds some nuts. And a broken clock is right once or
> twice a day.

That must be the East Coast version. Out here in the hinterlands it's "Even a blind sow occasionally finds an acorn".

73, Dick

788. Re: Antenna Sought 10m/6m/2m/70cm

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 15:40:52 UTC
From: Andy KC2SSB <vhfradiobuff@yahoo.com>
Message-ID: <s8plqugu8cite88it4shl5obhautcs2d54@4ax.com>
Source record: 133027

On Sun, 13 Oct 2002 22:32:08 GMT, "Chip G." <n.1.m.i.e@snet.net>
wrote:

>Any ideas? I'm interested in the new Yaesu quad band, but doesn't seem
>worthwhile unless I can find an appropriate quad-band antenna...
>
>Need one for 10m, 6m, 2m and 70cm.
>
>Thanks,

I just ordered that radio last night, with the Diamond HV7A quad band
antenna. You can buy extra parts for it to use it on other HF bands.
You will always have 6/2/70cm, but you can replace the 10m element
with a number of other HF bands. I bought the Diamond K600M trunk lip
mount for it as well. I'm very excited about this new toy! :)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com

789. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 16:47:53 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <9urlqu49h3dag5p54odf79m39ohpld2mga@4ax.com>
Source record: 133028

On Sun, 13 Oct 2002 21:21:13 -0500 (CDT), richardharrison@webtv.net
(Richard Harrison) wrote:

>Richard Clark, KB7QHC wrote:
>"If you hold your fantastic, magical RF Voltmeter probes one meter
>apart, would you measure 196 mV at a distance of 1 mile from the 1 KW
>source?"
>
>If the probes were attached to the opposite ends of 1 meter of vertical
>wire without upsetting the interception of the wave, you should get
>about 196 millivolts if the earth loss is small and disturbances are
>insignificant.
>

Hi Richard,

That, in effect through modeling with EZNEC, is exactly what I did,
and the standard of 196mV was never observed (except as a consequence
of building a large receive antenna) much less a way to wrangle the
numbers into a 196mV/M relationship:
>> for a 1M tall user antenna, the load sees 317ï¿½V
>0.317mV/M not 196 mV/M (a -56dB discrepancy from the beginning)
>> for a 20 foot (6M) tall user antenna, the load sees 8.98mV
>1.5mV/M not 196 mV/M NOR 6 X 196 mV/M
>> for a 10M tall user antenna, the load sees 23.6mV
>2.36mV/M not 196 mV/M NOR 10 X 196 mV/M
>> for a 20M tall user antenna, the load sees 88.4mV
>4.42mV/M not 196 mV/M NOR 20 X 196 mV/M
>and so on up the line.

This leads me to believe that the "Fantastic, Magical RF Voltmeter"
fitted with probes with a 1M spread actually measures 317ï¿½V to full
scale, but the scale is printed with 196mV/M instead. I suppose if
you bought the cheaper, less sensitive MFJ version of the "Fantastic,
Magical RF Voltmeter," that it would require the longer 10M leads to
measure 23.6mV to be represented as 200mV/M (close enough).

73's
Richard Clark, KB7QHC

790. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 20:26:48 UTC
From: Ian Jackson <ianjacksonREMOVETHIS@g3ohx.demon.co.uk>
Message-ID: <5acRNFAIiyq9Ew6$@g3ohx.demon.co.uk>
Source record: 133029

In article <ao9ldc$b6$0@208.207.71.132>, Dick Carroll
<dixie@townsqr.com> writes
>
>
>Dan Richardson wrote:
>>
>> On 12 Oct 2002 14:25:29 GMT, Dick Carroll <dixie@townsqr.com> wrote:
>>
>> > ANY coax of ANY length that any ham is likely to acquire and install
>> >won't cause such a drastic loss at ANY HF frequency with any load any
>> >ham is likely to try to use.
>>
>> Are you smoking wacky-tabaky?
>>
>> As an example of the error in the above statement, consider a 80
>> dipole when operated on 40 meters. That antenna will have the feed
>> point impedance around R1900 J-2700 (Ref: NEC calculations) resulting
>> in a SWR at the feed point of about 119:1. If this antenna was feed
>> with 100 feet of RG-213 the additional loss attributable to SWR would
>> be over 7 dB. Maybe 7dB isn't considered drastic by your standards,
>> but most hams would feel it is.
>
>
> Noooooooo, Danny I'm not smoking wacky or any other kind. If a fella who
>holds a ham radio license doesn't know better than to try to use a
>coax-fed 80 meter dipole on 40 then it's time he learned, the hard way
>if necessary. The easy way out is to just parallel a 40 meter dipole
>with the 80.

Oh dear! I did something nearly as bad.
At a 'special event' station, I distinctly remember using a coax-fed 20m
dipole on 40m (tuner at the TX end). It seemed to work well enough to
get several (winter) daylight contacts up to 100 miles. Where did I go
wrong?
73, Ian.

791. Re: Hamsticks used as dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 21:05:08 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DAB3184.1B2F6547@ieee.org>
Source record: 133030

cbhoelzel wrote:
>
> Has anyone taken two Hamsticks and mounted them horizontally with one
> fed by the center of the coax feedline and the other connected to the
> feedline braid?
>
> How well have they worked for you, as compared to just one mounted
> vertically?

The horizontal configuration using two hamsticks works reasonably well
for 20m-10m. Not well for 30m. Less well for 40m. Pretty sad performance
on 75m. If you are running 100w, two 75m dipoled hamsticks are pretty
good for QRP operation. OTOH, some of us believe life is too short for
QRP. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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792. Re: Multiband Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 21:07:46 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DAB3222.D4E66284@ieee.org>
Source record: 133031

Dick Carroll wrote:
>
> Ken N4VSD wrote:
> > Anyone know where I can find the formulae for building a multiband dipole
> > using several dipoles connected to the same feedpoint? Gets a little
> > complicated when building an antenna for six different frequencies between
> > 4.5 and 18MHz. Pruning would be a lot easier if you have an approximate
> > length for each dipole. I remember seeing an article in QST several years
> > ago.
>
> I don't know of any standard formula in use for that purpose. I've used
> paralleled dipoles a lot, and usually cut them to the standard halfwave
> dipole formula. That will make them all a bit long since there's some
> added capacitive loading on each from the presence of the others - more
> pronounced on the shorter/higher frequency dipoles than the lower. But
> since I like slightly long antennas when using a tuner I don't worry
> about it and the autotuner in the Icom doesn't protest at all, just
> tunes them right up.

OTOH, any dipole that is 1/2WL on the lowest frequency of operation can
be tuned to resonance at the transmitter end by varying the length of
the ladder-line feedline. I show how to do it on my web page.
--
cheers, CAM http://www.qsl.net/w5dxp

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793. Re: TREES TREES TREES (Need insight)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 21:13:24 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DAB3374.C32414CC@ieee.org>
Source record: 133032

Richard Harrison wrote:
> The antennas were 1/2-wave above ground level, but just the 600-ohm
> transmission lines were hot enough. I calculate the peak voltage at 100%
> modulation (a frequent event with the audio compressors we used) at
> 21,900 volts. You could almost reach up and touch the feedlines. I
> accidently did touch one of the 50 KW lines and once burned was twice
> shy!

Heh, heh, I used to work for Schlumberger in the oil fields. To obtain complete coverage of all of South Texas, we had to run relatively high power on our mobile labs. I would wait for some roughneck to wander close to the mobile antenna wearing a hard hat and then hit the transmit button. Given the size of the South Texas mosquitoes, most of them thought they had been bitten. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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794. Re: RFI problem on 75Mtrs in 95 Dodge Caravan

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 21:20:09 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DAB3509.3722A4F8@ieee.org>
Source record: 133034

Dennis Dworak wrote:
> I have a 95 Dodge Caravan and had an outbackerhp on a
> magnetic mount on the roof. I run a Yaesu FT-900 feeding
> an Ameritron ALS-500mobile amp. With the outbacker on
> the roof I could run full power on all bands with no problem.

That's understandable since the outbacker is about 8dB down from
a good bugcatcher.

> Recently I sold the outbacker high power and installed a
> Predator (N9JMX) screwdriver antenna at the left rear corner
> of my van. I can run full power (500 watts) on 40 mtrs and on
> 20 mtrs etc with no problem. But when I try to run high power
> on 75 mtrs it kills my engine immediately.

If your outbacker had been more efficient, it would probably
have done the same thing. With a screwdriver, you radiate as
much power without the amp as you did with the amp and outbacker.
(If you don't realize it, this is actually good news.)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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795. Yaesu ATAS-100 Antenna QUESTIONS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 21:23:59 UTC
From: Mike Green KQ6MU <radiotek@pacbell.net>
Message-ID: <hedmqucoj4e4tal9u2sdjq1tt6nqr2il4e@4ax.com>
Source record: 133033

Greetings,

I have some questions regarding the Yaesu ATAS-100 Mobile Antenna.

I just purchased the Yaesu FT-100D to use in my car (Ford Escort). I used the FT-100 when riding with a friend, and it seemed to perform well and the ease of operation with the ATAS-100 was exciting and simple.

Questions:

1) Antenna Mount Choices: Now, I really do not want to drill holes or anything that would damage the vehicle. I am looking at the Lakeview Quad Magnet Mount or Super Quad Magnet Mount on the Mag-mount side, the Trunk Lip or License Plate Mount (Lakeview) for more security knowing the antenna won't fly away.

I am aiming towards the Mag-Mounts, at this time. Will the Quad Magnet mounts have enough strength to hold this antenna to the vehicle? I would like to use it on the center of the roof, or, if necessary, on the trunk lid. Will the wind load (80-90 MPH max on the road) cause the mount to detach, or does it have sufficient holding strength?

2) PERFORMANCE: I have read tons of review on eHam, and would like to receive a few more. The reason(s) why I am choosing the ATAS-100, is due to ease of operation and decent efficiency. I don't want an antenna that will be cumbersome or "offensive." I think other Screw Driver Antennas (such as Don Johnson's Screw Driver) would be a little too large for this car to handle without a lot of construction work with the mount. Also, I don't want to stop and replace a jumper or resonator to change bands. Pros and Cons would be great!

That about does it, and I thank you for taking your time to assist me on my HF Mobile Setup. I can't operate from my home, so this is the next best thing. See ya'll on the Air & 73!

Please Email response to: radiotek@pacbell.net

Mike Green KQ6MU

796. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 21:26:56 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DAB36A0.64091C2F@ieee.org>
Source record: 133035

Dick Carroll wrote:
> Yep, Jim, and that's a far worse case that most of the usual operation
> experienced by users of a T2FD. I had occasion to use one quite a lot at
> work, in a non-amateur setting, and you'd be surprised how well they
> work when you aren't involved in "thinking about the technical aspects"
> of them.

Wow! Not thinking about them made them work better? Reminds me of sex!
(The Devil made me say that.)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

797. Using a beam in a valley...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 22:08:21 UTC
From: Ed Juge <ed@juge.org>
Message-ID: <3dab40c7.0@oracle.zianet.com>
Source record: 133036

Hi, Guys...

I'm finally moving to a retirement location where I can put up a beam!
But... it's a beautiful flat valley between two ranges of 400-500' hills.
North and South are pretty clear. To the east, the hills crest probably
3/4 to 1 mile away. West, mmm maybe 1/2-3/4. Haven't been able to measure
but I suspect takeoff angle to clear the hills will.be 30 degrees.

I'd like to have something fairly large, hopefully with some gain & F/B on
40m. Probably Force 12. Am I wrong to think I might be better off with
the antenna on a fairly short (35-40 ft.) tower for a higher takeoff angle?
Or do you think a beam's performance will be too compromised with unwanted
reflections to show useful gain and directivity. (Sorry, I've never been
able to get any meaningful results from a modeling program --guess I'm too
old to learn-- so thought I would ask here.)

Comments? Suggestion?

Thanks... Ed, W5EJ

Ed Juge
Hondo, NM 88336
email: ed@juge.org
==========

798. Oops... forgot to mention

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 22:21:06 UTC
From: Ed Juge <ed@juge.org>
Message-ID: <3dab43c1.0@oracle.zianet.com>
Source record: 133037

Forgot to mention... we're on a small river. Water table is rated 15-45
feet. Our well has water standing at 65' below the mostly sandy surface.
Topsoil is 9' deep on top of 9' of gravel, so the ground should be good.

Hi, Guys...

I'm finally moving to a retirement location where I can put up a beam!
But... it's a beautiful flat valley between two ranges of 400-500' hills.
North and South are pretty clear. To the east, the hills are probably 3/4
to 1 mile away. West, mmm maybe 1/2-3/4. Haven't been able to measure but i
suspect takeoff angle to clear the hills will.be 30 degrees.

I'd like to have something fairly large, hopefully with some gain & F/B on
40m. Am I wrong to think I might be better off with the antenna on a
fairly short (35-40 ft.) tower for a higher takeoff angle? Or do you think
a beam's performance will be too compromised with unwanted reflections to
show useful gain and directivity. (Sorry, I've never been able to get any
meaningful results from a modeling program -guess I'm too old to learn-- so
thought I would ask you.)

Comments? Suggestion?

Thanks... Ed, W5EJ

MOVING ON WED, 10/16. MAY BE OFFLINE FOR SEVERAL DAYS. PATIENCE, PLEASE.
Ed Juge
Hondo, NM 88336
email: ed@juge.org
==========

799. Re: Hamsticks used as dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 22:58:19 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <nuimqu48hopf1ivv341tjnb3fhf8fg2j9r@4ax.com>
Source record: 133038

On Mon, 14 Oct 2002 16:05:08 -0500, CAM <Cecil.A.Moore@ieee.org>
wrote:

>two 75m dipoled hamsticks are pretty
>good for QRP operation. OTOH, some of us believe life is too short for
>QRP. :-)

Life is too short to run the marathon in snowshoes too.

73's
Richard Clark, KB7QHC

800. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 23:01:28 UTC
From: WA6LZH <tangeram@lucent.com>
Message-ID: <3DAB4CC8.9060800@lucent.com>
Source record: 133039

There used to be an animal called "72 ohm twin lead". I remember buying 100 feet of it from Harrison Radio on Radio Row in NYC. It was about a tenth the cost of even the cheapest RG-58. I made a dipole of some #18 stranded copper they sold at the corner hardware store and connected the thing to the terminals at the back of my WRL Globe Chief 90a. I worked all over the East Coast with that setup and some on screen modulated am. I wonder if they still sell that stuff? Point is it looked exactly like lamp cord!

Tony

801. Re: ROHN towers stock is trading at .07 cents per share!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 23:11:09 UTC
From: foxyie@inwind.it
Message-ID: <halq9.127757$O8.3034104@twister.tampabay.rr.com>
Source record: 133040

Time to dump my stock

"Arlen Hall" <no.spam.here@hotmail.com> wrote in message
news:3da45865.5021069@127.0.0.1...
>
>
>
> As of 12:25 E.D.T. on 10/09/2-002, ROHN towers stock is trading at .07
> cents per share!
>
>
> http://finance.yahoo.com/q?s=rohn&d=c&k=c1&t=1y&a=v&p=s&l=on&z=m&q=l
>
>
>

802. Re: Using a beam in a valley...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 23:11:44 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <i4jmqu03o9ijuqe23u199mpvlka9aock7b@4ax.com>
Source record: 133041

On Mon, 14 Oct 2002 16:08:21 -0600, "Ed Juge" <ed@juge.org> wrote:

>To the east, the hills crest probably
>3/4 to 1 mile away. West, mmm maybe 1/2-3/4. Haven't been able to measure
>but I suspect takeoff angle to clear the hills will.be 30 degrees.

Hi Ed,

Tsk, tsk - 30 degrees indeed!

Let's take the worst case: for a run of 1/2 mile the land rises 500
feet. This is a classic rise/run that resolves through the inverse
tangent to reveal
tan theta = 500/2640
theta = arctan (0.1894)
theta = 10.7 degrees

A short tower has never been an optimal selection for any beam that I
am aware of (unless it's a fractal perhaps). Anyway, your absolute
worst case still provides plenty of DX angles (and knife edge
diffraction will actually lower that 11ï¿½ somewhat).

By the way, your description of a flat valley and my worst case
scenario are competing for a reality check. With an 19% slope, that
is one wicked climb and would be immediately noticeable - and never
described as a "flat."

73's
Richard Clark, KB7QHC

803. Re: Where to get aluminium tubing???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 23:16:16 UTC
From: foxyie@inwind.it
Message-ID: <4fIq9.127761$O8.3035135@twister.tampabay.rr.com>
Source record: 133044
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,uk.radio.amateur

```
"Art Unwin KB9MZ" <aunwin@fgi.net> wrote in message
news:c4becf19.0210091006.1e16b555@posting.google.com...
> "Steve G1XOW" <steve@wragge.fsworld.co.uk> wrote in message
news:<an9c75$got$1@newsg2.svr.pol.co.uk>...
> > Try ASC Metails in Lincolnshire. Very good and next day delivery in
> > Midlands.
> >
> > http://www.ascmetals.com/
> >
> > Cheers, Steve G1XOW
> >
> > "M3SEM" <ff@vv.vv> wrote in message
> > news:%0Xk9.1165$hS4.8997@newsfep3-gui.server.ntli.net...
> > > Wondering if anyone can point me in the direction of a supplier of
> > aluminium
> > > tubing in the UK, for some antenna projects??
> > >
> > > Thanks in advance :)
> > >
> > >
>
> Gentlemen As a former Brit I still retain my love of experimenting
> with
> antennas and thus over the years have accumulated quite a pile of
> aluminium tubing.This pile is being shipped off to the scrapyard by my
> grandaughter because I have little use for it anymore.
> The reason from moving away from aluminium is that I find telescopic
> fishing poles to be much more available,less expensive, can be
> extended to over
> 320 inches aside using aluminium in the boom area, Can use wire inside
> or aluminium paper on the outside so the basic rod material used lasts
> for ever because modification to length over experimental time does
> not damage the pole itself.
> P.S.
> When an ice storm comes along the rod believes it has caught a fish,
> it bends as all fishing rods do and the ice slides off !
>
> Art KB9MZ....XG.
>
```

804. Re: Using a beam in a valley...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 23:17:22 UTC
From: Artie DeCoe <Artie@dcoe.net>
Message-ID: <WeacnaUQj_QLzTagXTWc3A@News.GigaNews.Com>
Source record: 133042

He forgot to mention he's in the Grand Canyon?

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:i4jmqu03o9ijuqe23u199mpvlka9aock7b@4ax.com...
> On Mon, 14 Oct 2002 16:08:21 -0600, "Ed Juge" <ed@juge.org> wrote:

> By the way, your description of a flat valley and my worst case
> scenario are competing for a reality check. With an 19% slope, that
> is one wicked climb and would be immediately noticeable - and never
> described as a "flat."
>
> 73's
> Richard Clark, KB7QHC

805. Need manuals for KLM 15M6 and 10M6

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-14 23:25:49 UTC
From: Zoran Brlecic <WA7AA@attbi.com>
Message-ID: <3DAB5277.5020105@attbi.com>
Source record: 133043
Cross-posted to: rec.radio.amateur.antenna,rec.radio.swap,rec.radio.amateur.equipment

Hi, everyone.

I am getting "previously enjoyed" 6-el KLM monobanders for 10 and 15 meters, but the seller does not have manuals anymore. Is there anyone out there who can scan or photocopy them for me (at least the diagram). I'll pay any reasonable fee. Search on Google turned out zip.

Thanks and 73,

Zoran WA7AA

806. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 00:40:32 UTC
From: richardharrison@webtv.net
Message-ID: <17689-3DAB6400-909@storefull-2313.public.lawson.webtv.net>
Source record: 133047

Richard Clark, KB7QHC wrote:
"This leads me to believe that the "Fantastic Magical RF Voltmeter"
fitted with probes with a I-meter spread actually measures 317
microvolts to full scale, but the scale is printed with 196 mVm
instead."

Possibly so, and fair enough. So long as the indication squares with the actual field it`s OK.

I`m puzzled as to wahat troubles Richard Clark. I doubt it`s the field produced at one mile by one kilowatt. Many different numbers are found for this in the literature, but they are explained by the different circumstances such as transmitting antenna, the propagation path, etc.

For example, a 1/2-wave dipole in free space is said to produce about 138 mV/m at one mile, not 196 mVm that the 1/4-wave over an excellent reflector produces. This squares with twice the power from the 1/4-wave antenna because half the available power can`t flee through that excellent reflector under the antenna and its transmission path. It must be transmitted in the upper hemisphere.

I doubt that Richard Clark challenges the 6 db decline in field strength power every time the distance doubles from the transmitter in the far field, due to spatial spread. That`s just geometry.

I doubt that Richard Clark challenges antenna reciprocity. A current in a wire produces a certain field. A certain field conversely produces a certain current in a wire. The actual mechanism can be tedious because there are many degrees of freedom. The best reference I have is from King, Mimno, and Wing. The most readable reference I have is Terman`s section on "Behavior of Antennas When Receiving Radio Signals".

The formulas are too involved for me to reproduce here.

Having measured fields countless times I`m a believer.

Best regards, Richard Harrison, KB5WZI

807. Trunk mount question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 00:44:04 UTC
From: Andy KC2SSB <vhfradiobuff@yahoo.com>
Message-ID: <f5pmquonjulrmp55soc9o21p3v85hqjvb5@4ax.com>
Source record: 133045

What is the best way to ensure a trunk mount is well grounded? Is
there an easy way to remove the paint around the area where the screws
go?
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com

808. Fiberglass guy rod

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 01:03:50 UTC
From: bbrewer@erols.com
Message-ID: <1315c30d.0210141703.10055aab@posting.google.com>
Source record: 133046

I am having trouble finding info on fiberglass guy rod. What is the
equivelant size to wire? How is it fastened? Where can I get it?
Thanks, K4CJB

809. Re: Trunk mount question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 02:04:46 UTC
From: Artie DeCoe <Artie@dcoe.net>
Message-ID: <diqdncSKVbNP6jagXTWcqA@News.GigaNews.Com>
Source record: 133049

First, I would not assume that the trunk lid is well grounded - it sits on a rubber gasket and the only path to ground it through the hinges and the latch. Nice, flat, braid to the main body panels would be much better.

"Andy KC2SSB" <vhfradiobuff@yahoo.com> wrote in message news:f5pmquonjulrmp55soc9o21p3v85hqjvb5@4ax.com...
> What is the best way to ensure a trunk mount is well grounded? Is
> there an easy way to remove the paint around the area where the screws
> go?
> =-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
> 73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
> Beachwood, NJ USA Grid FM29vw
> http://vhfradiobuff.tripod.com

810. Re: Does anybody know anything about "Match All"?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 02:11:12 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoftg0$uj9$0@208.207.71.150>
Source record: 133050

CAM wrote:
>
> Dick Carroll wrote:
> > Yep, Jim, and that's a far worse case that most of the usual operation
> > experienced by users of a T2FD. I had occasion to use one quite a lot at
> > work, in a non-amateur setting, and you'd be surprised how well they
> > work when you aren't involved in "thinking about the technical aspects"
> > of them.
>
> Wow! Not thinking about them made them work better?

Seems that way when all signals are attenuated by the same factor
which doesn't affect the intended communication.

> Reminds me of sex!

Hey, it's more fun when you think about it!

> (The Devil made me say that.)

You are forgiven.

811. Re: Multiband Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 02:13:21 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoftk1$uj9$1@208.207.71.150>
Source record: 133051

CAM wrote:
>
> OTOH, any dipole that is 1/2WL on the lowest frequency of operation can
> be tuned to resonance at the transmitter end by varying the length of
> the ladder-line feedline. I show how to do it on my web page.

Cecil, are you in a subdivision where you have deed restrictions on antennas?

Dick

812. Re: QRM entering via the antenna connector ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 02:25:18 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aofuaefv0@208.207.71.150>
Source record: 133052

Tarmo Tammaru wrote:
>

If you replace the banana
> plug with a proper connector that connects to the shield of the RG58, you
> should be able to eliminate some of the in-building noise that you are
> picking up.

If you have a coax-fed antenna with the coax coming into the house, a good way to check the noise level that you would be picking up if you were using a single wire feedline is to unscrew the barrel of the PL259 and slightly pull the PL259 from its jack so that the center pin still makes contact but the shield (barrel) does not. That takes the shield braid out of the picture. If you have any noise generated within the house (who doesn't?) it'll sure show up. TV birdies are everywhere there is humanity, it seems.

Dick

813. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 02:38:58 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aofv42fv1@208.207.71.150>
Source record: 133053

Ian Jackson wrote:
>
> In article <ao9ldc$b6$0@208.207.71.132>, Dick Carroll
> <dixie@townsqr.com> writes
> >
> >
> >Dan Richardson wrote:
> >>
> >> On 12 Oct 2002 14:25:29 GMT, Dick Carroll <dixie@townsqr.com> wrote:
> >>
> >> > ANY coax of ANY length that any ham is likely to acquire and install
> >> >won't cause such a drastic loss at ANY HF frequency with any load any
> >> >ham is likely to try to use.
> >>
> >> Are you smoking wacky-tabaky?
> >>
> >> As an example of the error in the above statement, consider a 80
> >> dipole when operated on 40 meters. That antenna will have the feed
> >> point impedance around R1900 J-2700 (Ref: NEC calculations) resulting
> >> in a SWR at the feed point of about 119:1. If this antenna was feed
> >> with 100 feet of RG-213 the additional loss attributable to SWR would
> >> be over 7 dB. Maybe 7dB isn't considered drastic by your standards,
> >> but most hams would feel it is.
> >
> >
> > Noooooooo, Danny I'm not smoking wacky or any other kind. If a fella who
> >holds a ham radio license doesn't know better than to try to use a
> >coax-fed 80 meter dipole on 40 then it's time he learned, the hard way
> >if necessary. The easy way out is to just parallel a 40 meter dipole
> >with the 80.
>
> Oh dear! I did something nearly as bad.
> At a 'special event' station, I distinctly remember using a coax-fed 20m
> dipole on 40m (tuner at the TX end). It seemed to work well enough to
> get several (winter) daylight contacts up to 100 miles. Where did I go
> wrong?

Looks like you got lucky. The high reflected didn't smoke anything and
your coax and matching network was able to handle it all without arcing.
Not everyone is so blessed.
> 73, Ian.

814. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 03:00:58 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <191nqucoeak3ivjr4smf2pdbv9j2njr0pc@4ax.com>
Source record: 133054

On Mon, 14 Oct 2002 19:40:32 -0500 (CDT), richardharrison@webtv.net
(Richard Harrison) wrote:

>Richard Clark, KB7QHC wrote:
>"This leads me to believe that the "Fantastic Magical RF Voltmeter"
>fitted with probes with a I-meter spread actually measures 317
>microvolts to full scale, but the scale is printed with 196 mVm
>instead."
>
>Possibly so, and fair enough. So long as the indication squares with the
>actual field it`s OK.
>
>I`m puzzled as to wahat troubles Richard Clark. I doubt it`s the field
>produced at one mile by one kilowatt.

Hi Richard,

Well, yes, but no further than described. Let's say I was looking for
an absolute result, rather than a relative one.

Also, this bears on a comment you offered:
>A 20-foot vertical antenna is about 6 meters and capable of 6x10 mV/m at
>20 miles from the 1 KW station.. 60 mV/m
Which suggests antenna gain is a linear function of length (my model
suggests for short antennas it is a power progression, not a linear
progression).

My model represents that 196mV/M radically overstates what is
available to a 1M antenna (merely 317ï¿½V/M in a modeled application)
and that an antenna 6 times larger does not have 6 times that amount
(rather it has 8.98mV or 28 times larger!).

This leads me to observe that technical usage of V/M is ill-suited to
translating those terms to actual potentials seen by a receiver.

73's
Richard Clark, KB7QHC

815. Re: Cushcraft MA5B Vs. TGM MQ-2 Which Is better?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 03:31:58 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DAB8C46.5DC97A64@bellatlantic.net>
Source record: 133055

RC wrote:
>
> I am thinking about installing a small beam; however, I can't decide
> between the MA5B beam and the MQ-2 quad. Since I have a HOA, I will
> only be able to install the antenna at 25 feet. Which antenna has the
> better performance? By the way, the HexBeam is too large, so I am not
> considering it.
>
> Thanks

I'm delighted with my MQ-2. I imagine there is little to choose
between the two in terms of performance. The MQ-2 got the nod
over the MA5B when I was deciding because it includes 6 meters
and is a bit smaller. 6 meters tunes fine using the internal
tuner in the IC 746.

816. Re: Yaesu ATAS-100 Antenna QUESTIONS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 03:53:12 UTC
From: KB7M <kb7m@arrl.net>
Message-ID: <KiMq9.1272$pp4.94973@news.uswest.net>
Source record: 133056

I would recommend against using a mag mount for the ATAS-100 for the simple reason that this antenna MUST be well grounded. Failure to do so may result in burning out the antenna. I know this from sad experience. When using an ATAS-100 antenna, ground the antenna AND the radio WELL!

"Mike Green KQ6MU" <radiotek@pacbell.net> wrote in message news:hedmqucoj4e4tal9u2sdjq1tt6nqr2il4e@4ax.com...
> Greetings,
>
> I have some questions regarding the Yaesu ATAS-100 Mobile Antenna.
>
> I just purchased the Yaesu FT-100D to use in my car (Ford Escort). I
> used the FT-100 when riding with a friend, and it seemed to perform
> well and the ease of operation with the ATAS-100 was exciting and
> simple.
>
> Questions:
>
> 1) Antenna Mount Choices: Now, I really do not want to drill holes or
> anything that would damage the vehicle. I am looking at the Lakeview
> Quad Magnet Mount or Super Quad Magnet Mount on the Mag-mount side,
> the Trunk Lip or License Plate Mount (Lakeview) for more security
> knowing the antenna won't fly away.
>
> I am aiming towards the Mag-Mounts, at this time. Will the Quad Magnet
> mounts have enough strength to hold this antenna to the vehicle? I
> would like to use it on the center of the roof, or, if necessary, on
> the trunk lid. Will the wind load (80-90 MPH max on the road) cause
> the mount to detach, or does it have sufficient holding strength?
>
> 2) PERFORMANCE: I have read tons of review on eHam, and would like to
> receive a few more. The reason(s) why I am choosing the ATAS-100, is
> due to ease of operation and decent efficiency. I don't want an
> antenna that will be cumbersome or "offensive." I think other Screw
> Driver Antennas (such as Don Johnson's Screw Driver) would be a little
> too large for this car to handle without a lot of construction work
> with the mount. Also, I don't want to stop and replace a jumper or
> resonator to change bands. Pros and Cons would be great!
>
>
> That about does it, and I thank you for taking your time to assist me
> on my HF Mobile Setup. I can't operate from my home, so this is the
> next best thing. See ya'll on the Air & 73!
>

> Please Email response to: radiotek@pacbell.net
>
> Mike Green KQ6MU

817. Gamma rod construction question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 04:39:12 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DAB9BFA.EC8A807E@bellatlantic.net>
Source record: 133057

I'm building a 4 element 6 meter beam. I'll be
running 100 watts.

The gamma rod is fixed. One end is screwed to the center
of the S0-239 with a 6-32 brass screw & nuts. The screw
was ground down to fit into the center pin on the S0-239,
and soldered in place. The center conductor plus insulation
of RG8 slides in this rod (3/8" tube) and the end is attached
to the driven element with a sliding clip.

The gamma rod is 1 1/2" below the driven element.
The question:
Is it ok to use PVC plumbing pipe as the stand off between
the gamma rod & driven element? The rod will pass thru a
hole in the PVC pipe, and the driven element will pass through
another hole. I've tried it - mechanically it is really sturdy,
but I don't know if it will stand up to sunlight/whatever.

818. Comet SBB-7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 04:50:24 UTC
From: Matt & Wendy <mapwam@frontiernet.net>
Message-ID: <uqmt9tjktjr688@corp.supernews.com>
Source record: 133048

I need help tuning a Comet SBB-7 antenna. It is a 146-450 antenna with two loading coils. I can tune the 144-148 mhz from about 1.0 to about 1.4. But the 440 region gives me trouble. I can tune the antenna from 440-447 to about 1.5, but from 448-450, the SWR spikes. Literally goes off the meter. Any help?

819. Re: Gamma rod construction question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 04:56:03 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3DAB9F6E.8C05B3D1@verizon.net>
Source record: 133058

ehsjr@bellatlantic.net wrote:

> I'm building a 4 element 6 meter beam. I'll be
> running 100 watts.
>
> The gamma rod is fixed. One end is screwed to the center
> of the S0-239 with a 6-32 brass screw & nuts. The screw
> was ground down to fit into the center pin on the S0-239,
> and soldered in place. The center conductor plus insulation
> of RG8 slides in this rod (3/8" tube) and the end is attached
> to the driven element with a sliding clip.
>
> The gamma rod is 1 1/2" below the driven element.
> The question:
> Is it ok to use PVC plumbing pipe as the stand off between
> the gamma rod & driven element? The rod will pass thru a
> hole in the PVC pipe, and the driven element will pass through
> another hole. I've tried it - mechanically it is really sturdy,
> but I don't know if it will stand up to sunlight/whatever.

If you have the SO239 end mechanically secured- and it sounds as though you do- then the other end needs to be a conductive connection from the gamma rod to the driven element- I don't see why you need the PVC standoff.

Dale W4OP

820. Re: Comet SBB-7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 05:38:03 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <uqnadv83sekdf8@corp.supernews.com>
Source record: 133060

Shorten the 440 antenna. From what you have indicated it is too long.

"Matt & Wendy" <mapwam@frontiernet.net> wrote in message
news:uqmt9tjktjr688@corp.supernews.com...
> I need help tuning a Comet SBB-7 antenna. It is a 146-450 antenna with two
> loading coils. I can tune the 144-148 mhz from about 1.0 to about 1.4. But
> the 440 region gives me trouble. I can tune the antenna from 440-447 to
> about 1.5, but from 448-450, the SWR spikes. Literally goes off the meter.
> Any help?
>
>

821. Re: G5RV New Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 05:38:16 UTC
From: KB9TMP <kb9tmp@juno.com>
Message-ID: <uqnaduhj2a74f5@corp.supernews.com>
Source record: 133059

"Scott Vanzandt" <vzandt@midsouth.rr.com> wrote in message
news:vcviqu40lt2ko5npkghr98bvstpjgd4i7p@4ax.com...
> I have my G5RV mounted similar to this and have decent results;
> however, If possible, the twin lead needs to come off the other
> elements at 90 degrees and should be straight out. That section will
> radiate esp. on 40 and 80 meters. I cannot tune 40 on mine with the
> rigs internal tuner and even using an external tuner I have some
> trouble with that band. 6-80 no probs other than than. I couldn't get
> mine up high enough to extend the ends, so I wrapped around the eves
> using electric fence stand offs to keep the wire away from the house.
> Scott

Scott
You said "the twin lead needs to come off the other elements
at 90 degrees and should be straight out". My question is can that
be straight out 90 deg horizontal making the G5RV like a big "T"
in the air without the twinlead being vertical at all?
I'm trying to figure out what kind of antenna to run as soon as
I upgrade, and needless to say I want to do it the traditional ham
way, in other words "As Cheap As Possible" ;^)

--
'73' From KB9TMP
"The secret of life is honesty and fair dealing,
if you can fake that, you've got it made."
-Groucho Marx

822. Re: Yaesu ATAS-100 Antenna QUESTIONS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 06:34:50 UTC
From: Neil King <neil.king@telus.net>
Message-ID: <3DABB603.37F6D6F4@telus.net>
Source record: 133061

I've had my ATAS100 mounted to the roof of my 4Runner for a couple of years now using a tri-mag mount. It has performed flawlessly and has survived speeds in the 80mph + range. At least two other local hams have the same or similar setup and I've not heard of their antennas achieving low earth orbit yet either.

Neil
VA7DX

Mike Green KQ6MU wrote:

> Greetings,
>
> I have some questions regarding the Yaesu ATAS-100 Mobile Antenna.
>
> <<snip>>

823. Re: Fiberglass guy rod

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 06:49:41 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DABBA85.91CB3D31@ieee.org>
Source record: 133062

Buddy wrote:
> I am having trouble finding info on fiberglass guy rod.

What size is the "fiberglass guy rod"? What is it used for?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

824. Re: Multiband Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 06:52:58 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DABBB4A.7C7BC80B@ieee.org>
Source record: 133063

Dick Carroll wrote:
> > OTOH, any dipole that is 1/2WL on the lowest frequency of operation can
> > be tuned to resonance at the transmitter end by varying the length of
> > the ladder-line feedline. I show how to do it on my web page.
>
> Cecil, are you in a subdivision where you have deed restrictions on
> antennas?

Nope, I just prefer to work on my antenna system inside the air-
conditioned hamshack.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

825. NEC MODEL FOR KT-34/36 ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 07:33:39 UTC
From: Harri Sillanpaa <harri.sillanpaa@lsk.fi>
Message-ID: <aogg1noue1@phys-news1.kolumbus.fi>
Source record: 133064

HELLO.

IS ANYBODY MODELING KT-34 OR/AND KT-36 VERSIONS ?

73 HARRI OH3PC

EMAIL: oh3pcremove@sral.fi

826. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 07:33:46 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3DABC4DA.9FC82E57@oda.com.au>
Source record: 133065

StarGazer wrote:
>
> How far off resonance do you have to be before using coax
> will significantly affect the antenna system performance.
> I'm still using a tuner to get a 1:1 SWR.

Operating a feedline at VSWR greater than 1 increases the feedline losses. The higher the matched line loss and the higher the VSWR, the greater the loss. Higher VSWR may be more tolerable on a lower loss cable, or higher cable loss may be more tolerable with low VSWR.

>
> I have about 4:1 on the bottom of 80 m and tune it out with
> the tuner.

You haven't told us the cable loss, so the answer depends on some unknowns.

For example, if you were using 100ft of RG58CU at 3.5MHz on an antenna, and you measured VSWR=4 at the transmitter end of the feedline, matched line loss would be around 0.8dB and the additional loss due to the VSWR would be around 1.2dB, giving a total cable loss of around 2dB. A bit shabby, but not real bad - 62% of the power from the tuner is reaching the antenna.

But, if you were using 30ft of RG213 at 3.5MHz on a different antenna, and you measured VSWR=4 at the transmitter end of the feedline, matched line loss would be around 0.1dB and the additional loss due to the VSWR would be around 0.1dB, giving a total cable loss of around 0.2dB. Pretty reasonable - 95% of the power from the tuner is reaching the antenna.

So you see, it depends on the matched line loss and the VSWR.

Beware of the unstated qualifications that make broad statements valid.

Owen

PS: don't overlook that the antenna in the first scenario has a VSWR of about 6 at the antenna terminals, and if you replaced the cable with 30 ft of RG213 (shorter, better cable, lower loss) you should see a VSWR around 5.6 at the transmitter end of the feedline and the total cable loss would be around 0.3dB - 93% of the power from the tuner is reaching the antenna.

(The analysis ignores the losses in the antenna tuner, which should be less than 0.3dB in each scenario.)

(Someone will probably check the numbers - did I get the maths right?)

827. Re: G5RV New Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 08:10:53 UTC
From: Scott Vanzandt <vzandt@midsouth.rr.com>
Message-ID: <i3jnqu8u30q824mmp5me6j3knuhgcbf6ba@4ax.com>
Source record: 133066

I am no expert her eby any means, but as long as you are perpendicular
to the other wires, that should work OK. I have the twin lead thrown
on my roof and it works everything but 40 well.
Scott
On Tue, 15 Oct 2002 00:38:16 -0500, "KB9TMP" <kb9tmp@juno.com> wrote:

>
>"Scott Vanzandt" <vzandt@midsouth.rr.com> wrote in message
>news:vcviqu40lt2ko5npkghr98bvstpjgd4i7p@4ax.com...
>> I have my G5RV mounted similar to this and have decent results;
>> however, If possible, the twin lead needs to come off the other
>> elements at 90 degrees and should be straight out. That section will
>> radiate esp. on 40 and 80 meters. I cannot tune 40 on mine with the
>> rigs internal tuner and even using an external tuner I have some
>> trouble with that band. 6-80 no probs other than than. I couldn't get
>> mine up high enough to extend the ends, so I wrapped around the eves
>> using electric fence stand offs to keep the wire away from the house.
>> Scott
>
>Scott
>You said "the twin lead needs to come off the other elements
>at 90 degrees and should be straight out". My question is can that
>be straight out 90 deg horizontal making the G5RV like a big "T"
>in the air without the twinlead being vertical at all?
>I'm trying to figure out what kind of antenna to run as soon as
>I upgrade, and needless to say I want to do it the traditional ham
>way, in other words "As Cheap As Possible" ;^)

>and for the spam bots:
>president@whitehouse.gov
>vicepresident@whitehouse.gov
>vento@mail.house.gov
>gephardt@mail.house.gov
>senator@feinstein.senate.gov
>senator_mccain@mccain.senate.gov
>senator@wellstone.senate.gov
>senator_byrd@byrd.senate.gov
>classonde@psbgm.qc.ca
>root@localhost
>admin@localhost
>root@mailloop.com
>Chairman Reed Hundt: rhundt@fcc.gov
>Commissioner James Quello: jquello@fcc.gov
>Commissioner Susan Ness: sness@fcc.gov
>Commissioner Rachelle Chong: rchong@fcc.gov

>postmaster@localhost
>admin@localhost
>
>Eat that, spam! PLEASE copy this and paste it to your sig card.

828. Re: Multiband Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 09:57:07 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aogopj$64q$0@208.206.142.79>
Source record: 133067

CAM wrote:
>
> Dick Carroll wrote:
> > > OTOH, any dipole that is 1/2WL on the lowest frequency of operation can
> > > be tuned to resonance at the transmitter end by varying the length of
> > > the ladder-line feedline. I show how to do it on my web page.
> >
> > Cecil, are you in a subdivision where you have deed restrictions on
> > antennas?
>
> Nope, I just prefer to work on my antenna system inside the air-
> conditioned hamshack.

Sure can't knock that plan!

829. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 09:59:09 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aogotdaut1@knossos.btinternet.com>
Source record: 133068

```
> The formulas are too involved for me to reproduce here.
>
============================

That's why programs GRNDWAV3, DIFFRAC1, DIFFRAC2, etc., have been written.
You don't even have to do the arithmetic. <grin>
---
========================
Regards from Reg G4FGQ
Free Radio Design Software
Go to http://www.g4fgq.com
========================
```

830. Re: Trunk mount question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 10:04:44 UTC
From: Andy KC2SSB <vhfradiobuff@yahoo.com>
Message-ID: <81qnqu81aspnn0agr75954745pht7jcsv7@4ax.com>
Source record: 132919

On Mon, 14 Oct 2002 21:04:46 -0500, "Artie DeCoe" <Artie@dcoe.net>
wrote:

>First, I would not assume that the trunk lid is well grounded - it sits on a
>rubber gasket and the only path to ground it through the hinges and the
>latch. Nice, flat, braid to the main body panels would be much better.

Is this something they'd sell in a hardware store, or at least at Home
Depot?
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com

831. Re: Trunk mount question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 10:37:29 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DABEFE9.2E99085C@cwis.net>
Source record: 132920

Andy,
Probably not, but what either may have is copper
flashing used around chemnies. Aluminum would work
just as well. Split a strip of flashing and you'll
have more ground straps than you'll know what to do
with...
'Doc

832. Re: Yaesu ATAS-100 Antenna QUESTIONS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 10:41:02 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DABF0BE.4FA9A521@cwis.net>
Source record: 132921

Mike,
I think I'd do something other than a mag-mount.
A large one may hold the Atas-100, but I wouldn't
count on it. I think I'd try a bumper mount, or
better stipp, make a bracket from the frame to above
the rear bumper.
'Doc

833. Re: Fiberglass guy rod

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 10:56:25 UTC
From: K4SQR@juno.com
Message-ID: <7c8be5b4.0210150256.4d23c1b5@posting.google.com>
Source record: 132922

Buddy;

Visit www.contesting.com and click on TowerTalk Archives. Search for Fiberglass Guy rod. Thousands of feet required for shipment. Possibly others interested in your area for purchase. If not, consider Phillystran from www.burghardt-amateur.com or www. texastowers.com

Good luck,
Jim, K4SQR

bbrewer@erols.com (Buddy) wrote in message news:<1315c30d.0210141703.10055aab@posting.google.com>...
> I am having trouble finding info on fiberglass guy rod. What is the
> equivelant size to wire? How is it fastened? Where can I get it?
> Thanks, K4CJB

834. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 11:02:49 UTC
From: K7JEB <k7jeb@arrl.no_spam.net>
Message-ID: <tBSq9.22791$ue4.1525431@bgtnsc04-news.ops.worldnet.att.net>
Source record: 132923

"Richard Clark" <kb7qhc@attbi.com> wrote:
> This leads me to observe that technical usage of V/M is ill-suited to
> translating those terms to actual potentials seen by a receiver.

Actually, I would say that short vertical monopoles, even
when placed over a perfect ground, are ill-suited to
translate electric field strength into terminal voltage.

First of all, the current distribution on a short monopole
(h < 0.1 wavelength) is approximately triangular in shape
rather than uniform. This results in an open-circuit
voltage at its base with respect to ground of *one-half*
the value of the incident electric field times the
monpole height. In other words, its effective height
is 1/2 its physical height.

Secondly, the induced voltage is in series with the
self-impedance of the monopole. For a 1-meter monopole
at 1 MHz, that's a few milliohms radiation resistance
in series with approximately 9500 ohms of capacitive
reactance. For the specified termination resistance,
1000 ohms, most of the induced voltage will be dropped
across that capacitive reactance. A more effective
termination would be that used with the so-called
'active antennas' - a resistor in the 10's of megohms
to ground (and closely connected to the gate of a
small MOSFET source-follower buffer).

The usual practice, as Richard Harrison has pointed
out, is to use a small loop antenna to measure the
magnetic field strength and translate that into
electric field strength in V/M by assuming a TEM
wave in free space (ie: make the measurement outdoors).
The small loop has the great advantage that its
self-impedance is a small resistance in series
with an equally small inductive reactance that can
easily drive more conventional receiver inputs.

As far as electric field strength being specified
in volts/meter - sorry guys, it's the Law (Gauss'
Law, that is).

--
Jim Bromley, K7JEB k7jeb @ arrl.net
Glendale, Arizona

835. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 11:43:08 UTC
From: richardharrison@webtv.net
Message-ID: <17689-3DABFF4C-977@storefull-2313.public.lawson.webtv.net>
Source record: 132924

Richard Clark, KB7QHC wrote:
"Let`s say I was looking for an absolute result, rather than a relative one."

Volts per meter means volts per meter when the length is short compared with wavelength.

Power doesn`t increase with the square of the voltage because the matched load resistance is linearly rising with the length of the short antenna. The load equals the radiation resistance. We tune for a conjugate match.

Best regards, Richard Harrison, KB5WZI

836. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 12:25:53 UTC
From: richardharrison@webtv.net
Message-ID: <1885-3DAC0951-1004@storefull-2312.public.lawson.webtv.net>
Source record: 132925

Jim Bromley, K7JEB wrote:
"Actually, I would say that short vertical monopoles, even when placed over perfect ground, are ill-suited to transfer electric field strength into terminal voltage."

Certainly true. Efficiency of mobile antennas is a case in point. (They are reciprocal devices.) The advantages are small air space and operation in all horizontal directions without specific directional positioning. Despite disadvantages, short whips are used for groundwaves because there is no horizontally polarized groundwave and because omnidirectionality is a virtue in many situations.

Best regards, Richard Harrison, KB5WZI

837. stacked crossed dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 12:53:43 UTC
From: Claude Frantz <claude@pc0312a.rz.unibw-muenchen.de>
Message-ID: <3DAC0FD7.A4D0B8C@pc0312a.rz.unibw-muenchen.de>
Source record: 132926

```
How to feed stacked crossed dipoles ?
What is the prefered vertical spacing ?
Are NEC models available ?
```

838. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 13:45:32 UTC
From: richardharrison@webtv.net
Message-ID: <14899-3DAC1BFC-145@storefull-2316.public.lawson.webtv.net>
Source record: 132931

Richard Clark, KB7QHC wrote:
"My model represents that 196 mV/m radically overstates what is
available to a 1-meter antenna (merely 0.317 mV/m in a modeled
application) and that an antenna 6 times longer does not have that
amount (rather it has 8.98 mv or 28 times larger!).

Aha! 196 mV/m from 1 KW at 1 mile from a 1/4-wave vertical antenna at 1 MHz over a highly conductive path is reported by many authors. They may have copied each other`s work, still they can`t all be that far wrong.

I have no experimental measurements at hand, but that size discrepancy could be crudely checked with 2 lengths of wire and an "S" meter.

I installed a "Long Ranger" 100-inch maximum, which collapsed into less than 1 meter by telescopic action, antenna on my 1940 Ford. I was a teen-ager then. I wanted such an antenna because I listened to distant AM stations at night. My recollection is, AVC not withstanding, that the volume increase was more consistent with a linear increase of signal strength than an exponential increase when lengthening the antenna. My crummy radio may account for that. You sometimes had to kick it to start the vibrator.

Best regards, Richard Harrison, KB5WZI

839. Pentanium Cable Spools

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 13:48:27 UTC
From: N W O <"ham mer"@bigfoot.com>
Message-ID: <j47oqugs17iifi37hhomd92thbj7qkrs00@4ax.com>
Source record: 132928

The ultimate cable for wire antennas or guys for your tower
You must check this out folks ..... an excellent all round product.

http://www.koolpages.com/killtown/pentanium.html

840. Re: RFI problem with TOUCH SWITCH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 13:49:34 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoh6de$g2e$0@208.206.142.79>
Source record: 132927

Tim Groat wrote:
>
> Don't bet on it. With the antenna on the barn roof more than 60 feet
> away, I could consistently key the touch lamp with 100W of RF.

Do you have electric power to the barn? Or an outside light on a pole nearby? If so it's coming right back into the house via the pole transformer secondary.
When I had my HF antennas close to the house I *always* had troublesome RFI. After moving them all to a tower less than 100 feet away from the building, I haven't seen any sign of it since, even though my 160 meter dipole, paralleled onto 80 and 40 meter dipoles, comes within several feet of an outside overhead triplex that feeds my workshop. It is at right angles to that AC feed, though.
That makes a difference. If the antenna is more parallel to the AC wiring it induces a lot more RF onto it.
I'm convinced, although as always, individual installations will differ.

Dick

841. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 13:52:43 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoh6jb$g2e$1@208.206.142.79>
Source record: 132929

CAM wrote:
>
> Dean Elwood wrote:
> > Question is this: Because this space is in the apex of the roof, there's no
> > way I could set a dipole's legs out straight. They would be slightly
> > s-shaped (not massively off though). Is that likely to make a big
> > difference? There would need to be some support at these bends, probably by
> > way of pulling the leg one way or the other with a cord of some sort.
>
> A "slightly s-shaped" dipole should work just fine. You can lower the
> resonant frequency by adding a capacity hat to each end. A-frame attics
> are ideal for end hats.
>

And if you use a spiral wound wire for a capacity hat it adds
inductance also and shortens he antenna even more. If I ever need to
install an attic antenna I'm going to try that.

Dick

842. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 14:04:54 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoh7a6idv0@208.206.142.79>
Source record: 132930

Owen Duffy wrote:
>
> StarGazer wrote:
> >
> > How far off resonance do you have to be before using coax
> > will significantly affect the antenna system performance.
> > I'm still using a tuner to get a 1:1 SWR.
>
> Operating a feedline at VSWR greater than 1 increases the feedline
> losses. The higher the matched line loss and the higher the VSWR, the
> greater the loss. Higher VSWR may be more tolerable on a lower loss
> cable, or higher cable loss may be more tolerable with low VSWR.
>
> >
> > I have about 4:1 on the bottom of 80 m and tune it out with
> > the tuner.
>
> You haven't told us the cable loss, so the answer depends on some
> unknowns.
>
> For example, if you were using 100ft of RG58CU at 3.5MHz on an antenna,
> and you measured VSWR=4 at the transmitter end of the feedline, matched
> line loss would be around 0.8dB and the additional loss due to the VSWR
> would be around 1.2dB, giving a total cable loss of around 2dB. A bit
> shabby, but not real bad - 62% of the power from the tuner is reaching
> the antenna.
>
> But, if you were using 30ft of RG213 at 3.5MHz on a different antenna,
> and you measured VSWR=4 at the transmitter end of the feedline, matched
> line loss would be around 0.1dB and the additional loss due to the VSWR
> would be around 0.1dB, giving a total cable loss of around 0.2dB. Pretty
> reasonable - 95% of the power from the tuner is reaching the antenna.
>
> So you see, it depends on the matched line loss and the VSWR.

Very good answer.

>
> Beware of the unstated qualifications that make broad statements valid.
>

But the simple, broad answer still stands - on a single band, with the
possible exception of the 10 meter band, replacing his coax with
ladderline and a tuner won't perceptibly improve his situation.

Dick

843. Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 15:07:22 UTC
From: sburgoyne@faux9bit.qc.ca
Message-ID: <3dac2c60.9021946@news.9bit.qc.ca>
Source record: 132932

Hello,

maybe this is an old question, but I haven't found an answer yet.

Why is bare copper preferred for a dipole antenna on HF ?
Why do textbooks say so ?

My dipole is made from a single wire, black insulated number 12 AWG
multi strand "house wire": seems to work OK.
It would need more height, but thats another story...

Would it work "better" with bare wire ?
I'm not sure but it seems to affect the velocity factor ?

Thanks for any help

Stephan VE2OWL
---
to reply direct, remove "faux" from e-mail address

844. Re: Gamma rod construction question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 15:25:23 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210150725.54431a5f@posting.google.com>
Source record: 132933

ehsjr@bellatlantic.net wrote in message news:<3DAB9BFA.EC8A807E@bellatlantic.net>...
> I'm building a 4 element 6 meter beam.

> Is it ok to use PVC plumbing pipe as the stand off between
> the gamma rod & driven element? The rod will pass thru a
> hole in the PVC pipe, and the driven element will pass through
> another hole. I've tried it - mechanically it is really sturdy,
> but I don't know if it will stand up to sunlight/whatever.

Should last for quite a while. There is little stress on the plastic.
I did much the same thing on mine, except that I used flat pieces of
plastic. After building it, I decided it could be welded in place, but
I haven't done it yet.
MK

845. Noisy BNC connectors.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 15:29:05 UTC
From: wave_spy@yahoo.co.uk
Message-ID: <e72fe60.0210150729.6d7d03ae@posting.google.com>
Source record: 132934

I wonder if anyone has a good way of cleaning the BNC chassis connector commonly found on vhf/uhf handhelds ?

These damn things seem to get dirty and dont get adequetly cleaned by the mating pin on the antenna thus making for a noisy transmit signal.

Any idea ?

Andy

846. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 15:33:51 UTC
From: richardharrison@webtv.net
Message-ID: <14897-3DAC355F-1081@storefull-2316.public.lawson.webtv.net>
Source record: 132935

Correction!

I should have consulted Terman. My memory is faulty. On page 655 of the 1937 edition of "Radio Engineering":

"Under these conditions (loss is insignificant) the rate at which energy is abstracted from the wave is (volts per meter x effective antenna height in meters) squared, divided by twice the radiation resistance, and since half of this is reradiated, the maximum possible amount of power that can be delivered to a load resistance is half the power above."

That looks to me like the dimensions of 1/2 E squared over R, because half the energy is reradiated.

On page 713, Terman writes:
"The energy that an antenna is able to deliver to a radio receiver depends upon the physical size of the antenna, the frequency, and the antenna efficiency as defined for transmission. If the efficiency is high, i.e., if the antenna resistance is largely radiation resistance, the energy that can be abstracted from a passing radio wave tends to be independent of size until the antenna dimensions approach a half wave length. This is because the equivalent lumped voltage induced in such an antenna is approximately proportional to size (my contention) while the radiation resistance is proportional to the square of the size."

My mistake! Recalling incorrectly the shape of radiation resistance versus antenna length (height) curves. I wrongly said radiation resistance was a linear function for electrically small antennas.

I apologize.

Best regards, Richard Harrison, KB5WZI

847. Re: Coaxial Inverted L

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 15:54:13 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210150754.72570ada@posting.google.com>
Source record: 132936

"hasan schiers" <schiers@netins.net> wrote in message
news:<ao6m70$iv7he$1@ID-52642.news.dfncis.de>...
> Instead of remarks like "horse hockey", perhaps David or someone else could
> elaborate a bit on the theory behind the increased bandwidth?
>
> The original information on the "double bazooka" turned out to be terribly
> flawed and the improved bandwidth either didn't exist, or was the result of
> identifiable losses.
>
> Would someone please comment on the actual construction of the antenna, and
> the supposed mechanism of the increased bandwidth. I have a spare cross boom
> on my tower that I would like to put a 160 antenna on, and this might be an
> interesting experiment. I don't want to go to the bother, however, chasing a
> mirage.

I won't go as far as horsehocky, but I'd be very leary of the improved
bandwidth. Lets look at it from a wire dia angle. On 160m, to show a
decent decrease in Q, I would think you would need a huge dia
radiator. And I'm just guessing, but I would think offhand, that the
shorter the antenna, the more you might notice the improved bandwidth.
IE: many mobile op's try to use fat lower masts. If you look at it
from a "bazooka" standpoint, it's already been proven that the
increase in bandwidth is due to loss in the coax. Now, the loss in
coax is pretty low on 160m, so this "shouldn't" be a large factor.
Would depend on the type and quality of coax.
I have to wonder if the same ground radial system is being used on
both antennas. This could have a large effect if the first antenna had
many radials, but the 2nd "bazooka" wire had fewer radials. Myself,
I'd be scratching my head wondering where any extra losses would be.
If both antennas are the same height, and both use the same radial
set, etc, and antenna B shows a much wider bandwidth, I'd be thinking
excess loss is the reason. I've had a number of 160m antennas, L's,
T's, dipoles, etc, etc, and I don't remember one of them that would
cover the whole band without help from a tuner. Now, if f/s and on air
tests seem to indicate that the antenna is working as well as the
first one, well, heck, I'd probably use it, loss or not. But I'd still
be scratching my head....I'm wondering which antenna actually radiates
the best. As a general rule, improving a vertical will raise the Q,
not lower it. I don't doubt there are exceptions though in some cases.
MK

848. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 16:25:08 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <_r-dnaMd74Le3DGgXTWc3A@News.GigaNews.Com>
Source record: 132937

Stephan,

I don't think there is any measurable difference between bare and insulated,
or solid and stranded wire at HF. Solid wire is more likely to break from
flexing. Put your effort into getting either one as high as possible.

Tam/WB2TT
"Stephan" <sburgoyne@faux9bit.qc.ca> wrote in message
news:3dac2c60.9021946@news.9bit.qc.ca...
> Hello,
>
> maybe this is an old question, but I haven't found an answer yet.
>
> Why is bare copper preferred for a dipole antenna on HF ?
> Why do textbooks say so ?
>
> My dipole is made from a single wire, black insulated number 12 AWG
> multi strand "house wire": seems to work OK.
> It would need more height, but thats another story...
>
> Would it work "better" with bare wire ?
> I'm not sure but it seems to affect the velocity factor ?
>
> Thanks for any help
>
> Stephan VE2OWL
> --
> to reply direct, remove "faux" from e-mail address

849. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 16:43:27 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <echoqukeaf37o9o45mjn452q0f6ski0bme@4ax.com>
Source record: 132938

On 15 Oct 2002 13:52:43 GMT, Dick Carroll <dixie@townsqr.com> wrote:

>
> And if you use a spiral wound wire for a capacity hat it adds
>inductance also and shortens he antenna even more. If I ever need to
>install an attic antenna I'm going to try that.
>
>Dick

Hi Dick,

Such loading doesn't work as well at the tip as it does beneath a
capacity hat. However, since this suggestion relates to the hat,
perhaps each spoke of this wound hat lead should terminate in its own
hat at THAT end.

73's
Richard Clark, KB7QHC

850. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 16:45:08 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <2e2cnckYjq1cyDGgXTWcqw@News.GigaNews.Com>
Source record: 132944

Electrically it will not make any differance below 30 mhz or so. Maybe at 10 meters it could make the antenna a few inches shorter, but most of the time you will be cutting it for minimum SWR anyway.

"Stephan" <sburgoyne@faux9bit.qc.ca> wrote in message news:3dac2c60.9021946@news.9bit.qc.ca...
> Hello,
>
> maybe this is an old question, but I haven't found an answer yet.
>
> Why is bare copper preferred for a dipole antenna on HF ?
> Why do textbooks say so ?
>
> My dipole is made from a single wire, black insulated number 12 AWG
> multi strand "house wire": seems to work OK.
> It would need more height, but thats another story...
>
> Would it work "better" with bare wire ?
> I'm not sure but it seems to affect the velocity factor ?
>
> Thanks for any help
>
> Stephan VE2OWL
> --
> to reply direct, remove "faux" from e-mail address

851. Re: Gamma rod construction question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 16:51:08 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DAC47A5.AE3E2DD9@bellatlantic.net>
Source record: 132939

Dale Parfitt wrote:
>
> ehsjr@bellatlantic.net wrote:
>
> > I'm building a 4 element 6 meter beam. I'll be
> > running 100 watts.
> >
> > The gamma rod is fixed. One end is screwed to the center
> > of the S0-239 with a 6-32 brass screw & nuts. The screw
> > was ground down to fit into the center pin on the S0-239,
> > and soldered in place. The center conductor plus insulation
> > of RG8 slides in this rod (3/8" tube) and the end is attached
> > to the driven element with a sliding clip.
> >
> > The gamma rod is 1 1/2" below the driven element.
> > The question:
> > Is it ok to use PVC plumbing pipe as the stand off between
> > the gamma rod & driven element? The rod will pass thru a
> > hole in the PVC pipe, and the driven element will pass through
> > another hole. I've tried it - mechanically it is really sturdy,
> > but I don't know if it will stand up to sunlight/whatever.
>
> If you have the SO239 end mechanically secured- and it sounds as though
> you do- then the other end needs to be a conductive connection from the
> gamma rod to the driven element- I don't see why you need the PVC
> standoff.
>
> Dale W4OP

Dale,

Thanks - I guess I did not make it clear. One end of the
gamma rod (3/8" tube) is connected to the center pin of the
S0-239. The rod (tube) is thus mechanically secure at that end.
It forms part of a trombone capacitor. The other end can flop
around unless I use an insulating material to secure it. The
electrical connection is through the trombone capacitor to the
driven element. The capacitor is made by sliding a length of
center conductor (plus insulation) of RG 8U into the gamma
rod (tube). You just strip the insulation and the shield. The
"rod" part of the gamma is that insulated wire, and it is
electrically (and mechanically) connected to the driven
element.

852. Re: Gamma rod construction question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 16:54:25 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DAC486B.4830B840@bellatlantic.net>
Source record: 132940

Mark Keith wrote:
>
> ehsjr@bellatlantic.net wrote in message news:<3DAB9BFA.EC8A807E@bellatlantic.net>...
> > I'm building a 4 element 6 meter beam.
>
> > Is it ok to use PVC plumbing pipe as the stand off between
> > the gamma rod & driven element? The rod will pass thru a
> > hole in the PVC pipe, and the driven element will pass through
> > another hole. I've tried it - mechanically it is really sturdy,
> > but I don't know if it will stand up to sunlight/whatever.
>
> Should last for quite a while. There is little stress on the plastic.
> I did much the same thing on mine, except that I used flat pieces of
> plastic. After building it, I decided it could be welded in place, but
> I haven't done it yet.
> MK

Mark,

Thanks. I've used plexiglass before, but I've heard it
becomes brittle when exposed to the elements over time.
I don't know if that's true - but I decided to alter
my approach based on that. I'll go with the PVC pipe.

853. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 17:13:13 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <20ioqu8a618bkl9ho6fhr4bf67q36je43t@4ax.com>
Source record: 132941

On Tue, 15 Oct 2002 06:43:08 -0500 (CDT), richardharrison@webtv.net (Richard Harrison) wrote:

>Richard Clark, KB7QHC wrote:
>"Let`s say I was looking for an absolute result, rather than a relative
>one."
>
>Volts per meter means volts per meter when the length is short compared
>with wavelength.

My modeling suggests that V/M is meaningless in the face of a real 1 meter wire doublet feeding a real load. That is, with 1 meter leads (which conforms to the constraint of being short) I do not get 196mV for that same meter of wire (for ANY size load). In fact I get nothing near 196mV - 317ï¿½V (a -56dB discrepancy from the offered standard field value). This suggests that knowing V/M and trying to translate that into a known voltage applied to a receiver is utterly useless. That is, unless you have a modeler, and even then it doesn't give a damn about V/M either.

>
>Power doesn`t increase with the square of the voltage because the
>matched load resistance is linearly rising with the length of the short
>antenna. The load equals the radiation resistance. We tune for a
>conjugate match.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

Am I to infer that field strength meters are conjugately matched then? If I were to load the 1 meter leads to their consequent radiation resistance, I am fully sure that the already dismal -56dB correction factor for voltages would sink even further. Having never observed any field strength meter with load tuning provisions, it seems unlikely that is an option (or that it is even considered necessary to perform this conjugation).

If this appears to be a conundrum, it would further understanding if someone could offer an explanation as just how to get 196mV out of 1 meter of wire (or even half that 196mV, or a third, or a tenth, or a hundredth).

The application of V/M in a thread wanting to know how to build an AM antenna seems to be as useless as tits on a boar hog.

73's
Richard Clark, KB7QHC

854. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 17:46:12 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DAC5464.6629D96F@cwis.net>
Source record: 132942

Stephan,
While there is some slight difference between the 'VF'
of bare and insulated wire, it's very small. The difference
in length it would make is compensated for, or 'taken care'
of, when the antenna is 'trimmed' for resonance. I would
think that the primary difference between solid and stranded
wire is mechanical, which would stand up to movement of the
antenna 'better'. Again, the difference will probably be
very little. Maybe a difference in surface area per size of
wire? That's really 'pushing it' though!
For all practical purposes, there is no difference between
solid or stranded, insulated or not, especially at HF...
'Doc

wrote:
>
> Hello,
>
> maybe this is an old question, but I haven't found an answer yet.
>
> Why is bare copper preferred for a dipole antenna on HF ?
> Why do textbooks say so ?
>
> My dipole is made from a single wire, black insulated number 12 AWG
> multi strand "house wire": seems to work OK.
> It would need more height, but thats another story...
>
> Would it work "better" with bare wire ?
> I'm not sure but it seems to affect the velocity factor ?
>
> Thanks for any help
>
> Stephan VE2OWL
> --
> to reply direct, remove "faux" from e-mail address

855. Re: How high to mount R7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 17:49:15 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <vyYq9.153254$S32.10993632@news2.west.cox.net>
Source record: 132943

Bob -- the Cushcraft manuals at URL:
http://www.cushcraft.com/support/pdf/r7.pdf
sez a minimum of 8 feet and 25 feet from surrounding objects. Mine was at 8
Feet of the ground and worked fine. A ham here put his at 8 feet then 25
feet -- didn't notice much difference. But getting up in the air and
avoiding obstructions will certainly help.

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"bob c tripi" <rtripi@world.std.com> wrote in message
news:H3tqA5.8pE@world.std.com...
> I have a cushcraft R7 that I want to use, but I'm not sure if it should be
a few feet above the ground or about 20 feet up (so it is above the roof). I
am looking for where people have mounted theirs and how they found they
worked.
>
> 73s
> Bob N1KFV
> --
> Bob Tripi

856. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 17:52:50 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <SBYq9.153259$S32.10993559@news2.west.cox.net>
Source record: 132945

Try AM Antennas by Bruce Carter at URL:
http://www.mindspring.com/~brucec/amloop.htm
Lots of articles there

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"Peter Ward" <ptaak@yahoo.com> wrote in message
news:f235099a.0210122303.344f05a8@posting.google.com...
> I bought a stereo that (surprise) actually has a functional plug in
> for an external AM antenna...something I thought all manufacturers had
> given up on. It was supplied with a small plastic loop bound wire am
> antenna to use which is ok, but I want a stand alone vertical am
> antenna so it need not be adjusted for direction. Any advice?
>
> Peter Ward

857. Re: Gamma rod construction question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 17:55:41 UTC
From: Allodoxaphobia <nobody@jonz.net>
Message-ID: <slrnaqolks.ubd.nobody@animas.frontier.net>
Source record: 132946

On Tue, 15 Oct 2002 16:54:25 GMT, ehsjr@bellatlantic.net hath writ:
> > Mark Keith wrote:
>>
>> ehsjr@bellatlantic.net wrote in message
>> > I'm building a 4 element 6 meter beam.
>>
>> > Is it ok to use PVC plumbing pipe as the stand off between
>> > the gamma rod & driven element? The rod will pass thru a
>> > hole in the PVC pipe, and the driven element will pass through
>> > another hole. I've tried it - mechanically it is really sturdy,
>> > but I don't know if it will stand up to sunlight/whatever.
>>
>> Should last for quite a while. There is little stress on the plastic.
>> I did much the same thing on mine, except that I used flat pieces of
>> plastic. After building it, I decided it could be welded in place, but
>> I haven't done it yet.
>> MK
>
> Mark,
>
> Thanks. I've used plexiglass before, but I've heard it
> becomes brittle when exposed to the elements over time.
> I don't know if that's true - but I decided to alter
> my approach based on that. I'll go with the PVC pipe.

You're gonna find PVC will turn to dust long before plexiglass.
I once built a 'long-boom' UHF Yagi for TV ch's 73-77 using
PVC pipe for the boom and braces. Worked quit well for a few
years. Then a (small) windstorm brought it down. The stuff
would crumble, easily, with your fingers.
Of course, here at 7,700' (2,350M) and year-round brilliant
blue skies, the process would be accelerated for me.
Again, here at 7,700', I've _never_ seen any problems with
out-of-doors use with plexiglass.

HTH,
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

858. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 17:55:47 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <r8joqugb98q1118t0258vgmq7bjr8gk0mb@4ax.com>
Source record: 132947

On Tue, 15 Oct 2002 08:45:32 -0500 (CDT), richardharrison@webtv.net (Richard Harrison) wrote:

>Richard Clark, KB7QHC wrote:
>"My model represents that 196 mV/m radically overstates what is
>available to a 1-meter antenna (merely 0.317 mV/m in a modeled
>application) and that an antenna 6 times longer does not have that
>amount (rather it has 8.98 mv or 28 times larger!).
>
>Aha! 196 mV/m from 1 KW at 1 mile from a 1/4-wave vertical antenna at 1
>MHz over a highly conductive path is reported by many authors. They may
>have copied each other`s work, still they can`t all be that far wrong.
>
I can fully imagine that they are exactly right. But this says nothing of what was actually measured; rather it merely suggests that correlations were maintained.

And this goes to the heart of the matter. The 196mV/M was for a receiving antenna of one quarter wavelength in size? I have observed no comment to this matter, and yet a 1 meter length antenna obviously does not present 196mV to ANY load for any of its full 1 meter length. This real 1 meter doesn't even see 1% of 196mV for that same 1 meter specified.

>I have no experimental measurements at hand, but that size discrepancy
>could be crudely checked with 2 lengths of wire and an "S" meter.
>
>I installed a "Long Ranger" 100-inch maximum, which collapsed into less
>than 1 meter by telescopic action, antenna on my 1940 Ford. I was a
>teen-ager then. I wanted such an antenna because I listened to distant
>AM stations at night. My recollection is, AVC not withstanding, that the
>volume increase was more consistent with a linear increase of signal
>strength than an exponential increase when lengthening the antenna. My
>crummy radio may account for that. You sometimes had to kick it to start
>the vibrator.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

You make my point above by reciting how a longer AM antenna outperforms a shorter one. Your logic suggests otherwise, but the testimony of your perception argues successfully against your logic. Perceptions (all human forms of contact with the real world) are power progressions (that is, our sensing of the real world is log based, not linear). That your testimony consists of the sensation of hearing, a

very strong non-linear system, and concomitant with a linear increase with the antenna length is prima facia evidence of a power progression and conforms to the data of my model. You make the aside of "AVC not withstanding" which, again, more compelling argues for a power, not a linear, progression of sensitivity.

When you had a choice between an antenna 100 inches long, compared to its collapsed 1M form, the longer was clearly stronger. However, given the nature of senses (hearing again), the difference by your computation of V/M would suggest you could hear the difference of your linear-law gain of 2.5-fold and dismiss my suggestion (supported by my model's results) that it was actually a power-law gain closer to 7-fold for the same extension of wire. Again, the testimony of your senses favors a more vigorous boost found in the power progression not a weak linear one.

To apply this V/M to receive antenna characterization robs real gain hand over fist. This leads me to believe that the V/M characteristic is not to be applied to wire translations of field characteristics to front end potentials. There appears to be a every chance of mis-interpretation (like the linear gain of potential with the linear gain of length), and almost no chance of actual, useful or accurate translation (as evidenced by the glaring -56dB disconnect between the specified 196mV/M offered and the real 317ï¿½V/M applied to the load).

73's
Richard Clark, KB7QHC

859. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 18:07:36 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <uoloqugbf9q2rhf3qlt6pd45vvte6t2bi7@4ax.com>
Source record: 132948

On Tue, 15 Oct 2002 11:02:49 GMT, "K7JEB" <k7jeb@arrl.no_spam.net>
wrote:

>
>First of all, the current distribution on a short monopole
>(h < 0.1 wavelength) is approximately triangular in shape
>rather than uniform. This results in an open-circuit
>voltage at its base with respect to ground of *one-half*
>the value of the incident electric field times the
>monpole height. In other words, its effective height
>is 1/2 its physical height.

Hi Jim,

Your statement above is a form of infinite regress. That is, you have taken a physical form, translated it into an electrical equivalent, taken that electrical equivalent to cast it back into a smaller physical form. The unbounded regressive repetition of this argument devolves into a senseless conclusion that no antenna is useful because it is always shorter than it appears to be.

Such regressions then have to support the inevitable question driven by contrary real world evidence: when does this antenna become large enough (no longer short) for this logic to become invalid? You suggest that is 0.1 wavelength. Is that to suggest that a 0.10001 wavelength antenna has a constant current distribution out to the end? No, that isn't even true for 0.25 (which exhibits the identical open-circuit at the same end, long or short).

So, as a long or short antenna, the same problem exists at the same end, and yet the logic of the infinite regress is suspended for the longer one (despite the same logical constraints).

Infinite regressions often give the appearance of magic as a major component to the "logic" of the statement.

73's
Richard Clark, KB7QHC

860. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 18:33:08 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DAC5F64.A71D5BA6@ieee.org>
Source record: 132949

Reg Edwards wrote:
>
> > The formulas are too involved for me to reproduce here.
>
> That's why programs GRNDWAV3, DIFFRAC1, DIFFRAC2, etc., have been written.
> You don't even have to do the arithmetic. <grin>

Reg, what's the name of your program that calculates the length of the
matching section for a non-resonant dipole?
--
cheers, CAM http://www.qsl.net/w5dxp

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861. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 18:38:47 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DAC60B7.D87FA63D@ieee.org>
Source record: 132950

Dick Carroll wrote:
> And if you use a spiral wound wire for a capacity hat it adds
> inductance also and shortens the antenna even more. If I ever need to
> install an attic antenna I'm going to try that.

Anybody know an inductance formula for a two-dimensional coil?
--
cheers, CAM http://www.qsl.net/w5dxp

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862. Re: Gamma rod construction question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 18:40:02 UTC
From: BillS <BillS@austin.rr.com>
Message-ID: <3DAC6102.15E5055A@austin.rr.com>
Source record: 132954

PVC plumbing pipe does not contain Ultraviolet Inhibitors in the
plastic. It will turn brittle in exposed sunlight after a few years.
However, the solution to that is quite simple, paint it first. A couple
of coats of a good outdoors latex paint will shield the pipe and
increase the live 5X.
BillS

ehsjr@bellatlantic.net wrote:

> I'm building a 4 element 6 meter beam. I'll be
> running 100 watts.
>
> The gamma rod is fixed. One end is screwed to the center
> of the S0-239 with a 6-32 brass screw & nuts. The screw
> was ground down to fit into the center pin on the S0-239,
> and soldered in place. The center conductor plus insulation
> of RG8 slides in this rod (3/8" tube) and the end is attached
> to the driven element with a sliding clip.
>
> The gamma rod is 1 1/2" below the driven element.
> The question:
> Is it ok to use PVC plumbing pipe as the stand off between
> the gamma rod & driven element? The rod will pass thru a
> hole in the PVC pipe, and the driven element will pass through
> another hole. I've tried it - mechanically it is really sturdy,
> but I don't know if it will stand up to sunlight/whatever.

863. Re: Noisy BNC connectors.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 18:41:56 UTC
From: BillS <BillS@austin.rr.com>
Message-ID: <3DAC6174.A54BFB8A@austin.rr.com>
Source record: 132955

I coat the pin with Crest toothpaste, then insert and remove about twenty
times. Then flush both connectors with Contact Cleaner. Crest is very
mildly abrasive.
BillS

Me wrote:

> I wonder if anyone has a good way of cleaning the BNC chassis connector
> commonly found on vhf/uhf handhelds ?
>
> These damn things seem to get dirty and dont get adequetly cleaned by the
> mating pin on the antenna thus making for a noisy transmit signal.
>
> Any idea ?
>
> Andy

864. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 18:46:03 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DAC626B.45FAB443@ieee.org>
Source record: 132951

Stephan wrote:
> Why is bare copper preferred for a dipole antenna on HF ?
> Why do textbooks say so ?

A bare wire is always less lossy than an identical wire with insulation since the insulation has dielectric losses. Those textbooks can back up their claims with 0.1 dB loss calculations. :-) I'm a purist but I used insulated wire in AZ to reduce the wind-induced static. Not a problem in Phoenix or East Texas, but the Damned Yankee Hams tell me that there is such a thing as snow-induced static which can be reduced by using insulated wire.
--
cheers, CAM http://www.qsl.net/w5dxp

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865. Re: Gamma rod construction question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 18:51:29 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DAC63B1.3189D713@ieee.org>
Source record: 132952

ehsjr@bellatlantic.net wrote:
> Thanks. I've used plexiglass before, but I've heard it
> becomes brittle when exposed to the elements over time.
> I don't know if that's true - but I decided to alter
> my approach based on that. I'll go with the PVC pipe.

PVC certainly becomes brittle and shatters over time
when exposed to UV. If I were you, I would use LEXAN(R)
which, if I remember right, is a polycarbonate and is
used for airplane windshields.
--
cheers, CAM http://www.qsl.net/w5dxp

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866. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 19:10:50 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <_KZq9.56659$VQ2.13208720@twister.midsouth.rr.com>
Source record: 132953

While it doesn't get very cold in my part of the world... It's probably more humane to use insulated wire. I'm still "on the fence" concerning the use of stranded or single.

Ken

"Stephan" <sburgoyne@faux9bit.qc.ca> wrote in message news:3dac2c60.9021946@news.9bit.qc.ca...
> Hello,
>
> maybe this is an old question, but I haven't found an answer yet.
>
> Why is bare copper preferred for a dipole antenna on HF ?
> Why do textbooks say so ?
>
> My dipole is made from a single wire, black insulated number 12 AWG
> multi strand "house wire": seems to work OK.
> It would need more height, but thats another story...
>
> Would it work "better" with bare wire ?
> I'm not sure but it seems to affect the velocity factor ?
>
> Thanks for any help
>
> Stephan VE2OWL
> --
> to reply direct, remove "faux" from e-mail address

867. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 19:27:12 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3DAC6C10.F2C921B@oda.com.au>
Source record: 132956

Stephan wrote:
>
> Hello,
>
> maybe this is an old question, but I haven't found an answer yet.
>
> Why is bare copper preferred for a dipole antenna on HF ?

For the same copper size, won't the insulated wire have greater mass and
more importantly in most applications, higher wind resistance?

868. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 19:40:29 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <k+EWELAt8Gr9EwzY@g3ohx.demon.co.uk>
Source record: 132965

```
In article <aofv42$fv$1@208.207.71.150>, Dick Carroll
<dixie@townsqr.com> writes
>
>
>Ian Jackson wrote:
>>
>> In article <ao9ldc$b6$0@208.207.71.132>, Dick Carroll
>> <dixie@townsqr.com> writes
>> >
>> >
>> >Dan Richardson wrote:
>> >>
>> >> On 12 Oct 2002 14:25:29 GMT, Dick Carroll <dixie@townsqr.com> wrote:
>> >>
>> >> > ANY coax of ANY length that any ham is likely to acquire and install
>> >> >won't cause such a drastic loss at ANY HF frequency with any load any
>> >> >ham is likely to try to use.
>> >>
>> >> Are you smoking wacky-tabaky?
>> >>
>> >> As an example of the error in the above statement, consider a 80
>> >> dipole when operated on 40 meters. That antenna will have the feed
>> >> point impedance around R1900 J-2700 (Ref: NEC calculations) resulting
>> >> in a SWR at the feed point of about 119:1. If this antenna was feed
>> >> with 100 feet of RG-213 the additional loss attributable to SWR would
>> >> be over 7 dB. Maybe 7dB isn't considered drastic by your standards,
>> >> but most hams would feel it is.
>> >
>> >
>> > Noooooooo, Danny I'm not smoking wacky or any other kind. If a fella who
>> >holds a ham radio license doesn't know better than to try to use a
>> >coax-fed 80 meter dipole on 40 then it's time he learned, the hard way
>> >if necessary. The easy way out is to just parallel a 40 meter dipole
>> >with the 80.
>>
>> Oh dear! I did something nearly as bad.
>> At a 'special event' station, I distinctly remember using a coax-fed 20m
>> dipole on 40m (tuner at the TX end). It seemed to work well enough to
>> get several (winter) daylight contacts up to 100 miles. Where did I go
>> wrong?
>> 73, Ian.
>
>
> Looks like you got lucky. The high reflected didn't smoke anything and
```

>your coax and matching network was able to handle it all without arcing.
>Not everyone is so blessed.

No, not lucky, just didn't believe it wouldn't work.
Flimsy TV semi-airspaced coax seemed to handle 200W OK.
Tuner was best quality British KW Electronics E-Zeematch.
Oops.... I see that I typed 100 miles - meant to say 1000 (UK to Mediterranean).
Ian.

869. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 19:53:02 UTC
From: richardharrison@webtv.net
Message-ID: <14898-3DAC721E-422@storefull-2316.public.lawson.webtv.net>
Source record: 132960

Peter Ward wrote:
"---I want a stand alone vertical AM antenna so it need not be adjusted for directions."

We strayed into the minutia when I should have gone straight away to Terman for a definitive answer. It`s found on page 714 of the 1937 edition of "Radio Engineering":
"When it is desired to avoid marked directional effects in the reception of signals of broadcast and lower frequencies, a single wire with one end elevated and the other grounded through the receiver (input) is ordinarily used. The height rather than the length of such an antenna determines the induced voltage since waves of broadcast and lower frequencies are vertically polarized in the vivimity of the earth. A height of only a few feet is sufficient if great care is taken to eliminate all loss resistance and to match the receiver input perfectly with the antenna (as might be attempted in a car radio), but it is usually simpler to make the height at least 15 to 20 feet so that the penalty of not realizing ideal conditions is less.

Best regards, Richard Harrison, KB5WZI

870. Re: Multiband Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 19:54:10 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DAC7262.998F977E@ieee.org>
Source record: 132957

Dick Carroll wrote:
>
> CAM wrote:
> > ... I just prefer to work on my antenna system inside the air-
> > conditioned hamshack.
>
> Sure can't knock that plan!

Consider the only slightly enhanced following story. The temperature in Phoenix is 122 degrees F. You are out in your yard trying to trim your multiple dipoles to resonance on all HF bands. You have been at it for three hours. Doesn't it make sense to settle on a single dipole fed with near lossless transmission line and move the matching problem into the hamshack which is air-conditioned at 68 degrees? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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871. Re: Trunk mount question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 20:14:16 UTC
From: Paul Henry <spamtrap>
Message-ID: <3dac758a$0$9451$cc9e4d1f@news.dial.pipex.com>
Source record: 132958

'Doc <w5lz@cwis.net> wrote in message news:3DABEFE9.2E99085C@cwis.net...
>
>
> Andy,
> Probably not, but what either may have is copper
> flashing used around chemnies. Aluminum would work
> just as well. Split a strip of flashing and you'll
> have more ground straps than you'll know what to do
> with...
> 'Doc

You could also try going to your local car accessory store such as halfords
in the UK and getting an earth lead they normally come in various lengths
and various types too.

Paul

872. Calculation for ant length

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 20:21:35 UTC
From: Paul Henry <spamtrap>
Message-ID: <3dac7741$0$9445$cc9e4d1f@news.dial.pipex.com>
Source record: 132959

Hi all

I hope someone out there may be able to help

I remember a while back a radio ham who lived next to me gave me a calculation you could use to work out what length the ant should be at a set freq. such as 16" for 169mhz

He's long and gone now sadly but I cant for the life of me remember what the calculation was anyone out there in cyber land help us out.

Thanks guys

Paul

873. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 20:40:49 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aohuggknc1@helle.btinternet.com>
Source record: 132961

> Why is bare copper preferred for a dipole antenna on HF ?
> Why do textbooks say so ?
==========

(1) Because insulating materials make the antenna heavier for the same amount of copper. This increases the cost of supporting it.

(2) Because the radio textbooks you read are plagiarised from 'comic' papers.

874. Re: Calculation for ant length

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 20:55:46 UTC
From: "R. Scott" <washingtonham@yahoo.com>
Message-ID: <3DAC80D2.F21D0C8F@yahoo.com>
Source record: 132963

468/Fmhz

Paul Henry wrote:
>
> Hi all
>
> I hope someone out there may be able to help
>
> I remember a while back a radio ham who lived next to me gave me a
> calculation you could use to work out what length the ant should be at a set
> freq. such as 16" for 169mhz
>
> He's long and gone now sadly but I cant for the life of me remember what the
> calculation was anyone out there in cyber land help us out.
>
> Thanks guys
>
> Paul

875. Re: Calculation for ant length

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 21:00:46 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dac8204$0$4243$ba620e4c@news.skynet.be>
Source record: 132962

Probably L=468/F in non-metrics or 147/F in metrics, for a single dipole.

73 de Jacques - ON5MJ

876. Re: Calculation for ant length

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 21:37:27 UTC
From: richardharrison@webtv.net
Message-ID: <27190-3DAC8A97-1163@storefull-2311.public.lawson.webtv.net>
Source record: 132964

Paul Henry wrote:
"---what length the antenna should be at a set frequency such as 16 inches for 169 MHz?"

Paul`s example is close to a 1/4-wave. Meters of wavelength in free-space is 300 divided by the frequency in MHz (close enough).

For Paul`s 169 MHz, the wavelength in free-space 1.775m using 300 / MHz. For a 1/4-wave, divide by 4. My calculator gives 0.444 meters. There are 3.28 feet in a meter so, the length is 1.46 feet or 17.47 inches.

The wire slows the traveling wave depending on the length to dianeter ratio of the wire. Sometimes this is estimated as shortening the usual wire to 95% of the free-space length, or in Paul`s example, 16.6 inches. The actual range, depending on the fatness of the wire usually varies between 92% and 98% of the free-space wavelength. 95% is thus a compromise value.

Sometimes the length of a 1/2-wave dipole in feet is said to be 468 divided by the MHz. This conversion includes the 5% reduction in length for "end effect" or a fat wire or whatever you want to call it. If you want the length of a 1/4-wave antenna, just divide the result of the 1/2-wave calculation by 2. Or before calculating the antenna length, use a numerator of 234 and divide it by the frequency in MHz.

Best regards, Richard Harrison, KB5WZI

877. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 22:08:29 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aoi3kt$i5v$1@venus.btinternet.com>
Source record: 132967

I always use solid enamelled copper wire because its almost impossible to obtain the solid bare stuff.

And it's very difficult to wind your own close-wound tuning coils with bare wire.

To obtain bare solid wire it is necessary to persuade an enamelled copper wire manufacturer to sell you some before he enamells it.

He will probably charge you extra for the inconvenience caused and he won't be interested in lengths less than several miles. Only radio clubs will be interested.

Reg G4FGQ

878. Re: Calculation for ant length

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 22:08:30 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aoi3kt$i5v$2@venus.btinternet.com>
Source record: 132968

> 468/Fmhz
>
==========

Then, to be on the safe side and allow for pruning, add on about 5 percent
and you have the scientific formuala -

1 wavelength = 300 / F MHz in metres,

which is easier to remember.

879. Re: Calculation for ant length

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 22:08:31 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aoi3ku$i5v$3@venus.btinternet.com>
Source record: 132969

> I hope someone out there may be able to help
>
> I remember a while back a radio ham who lived next to me gave me a
> calculation you could use to work out what length the ant should be at a
set
> freq. such as 16" for 169mhz
>
> He's long and gone now sadly but I cant for the life of me remember what
the
> calculation was anyone out there in cyber land help us out.
>
==========

An approximate formula can be found in any issue of the ARRL Handbook if you
have one.

880. Re: Calculation for ant length

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 22:11:23 UTC
From: Paul Henry <spamtrap>
Message-ID: <3dac9106$0$13367$cc9e4d1f@news.dial.pipex.com>
Source record: 132966

Hi Guys

Thanks for all that most of you guys lost me on the 1/4 wave but I vagley remeber what its all about I hope.

All its for is I have some odd mounts here and some buggered ant and nned some for 169 mhz and for 86 mhz at the moment its the 86 one that I want to do so will get that one boxed off now I know how to do it thanks guys.

Paul

881. Re: Noisy BNC connectors.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 22:30:20 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <0G0r9.217095$TX5.9132252@news1.east.cox.net>
Source record: 132970

The BNC has enough "give" where lateral antenna movement
allows the pin to spread the female center receptacle in some
instances. Do a visual inspection of the BNC antenna fitting
on the talkie, and see if it looks elongated. You might have
to compress the female jack, or replace the BNF connector.

If not, try some DeOXIT cleaner to remove the oxidation--be careful
that the cleaner doesn't react with the plastic case material!

Pete

"Me" <wave_spy@yahoo.co.uk> wrote in message
news:e72fe60.0210150729.6d7d03ae@posting.google.com...
> I wonder if anyone has a good way of cleaning the BNC chassis connector
> commonly found on vhf/uhf handhelds ?
>
> These damn things seem to get dirty and dont get adequetly cleaned by the
> mating pin on the antenna thus making for a noisy transmit signal.
>
> Any idea ?
>
> Andy

882. Re: Pentanium Cable Spools

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 22:34:44 UTC
From: Artie DeCoe <Artie@dcoe.net>
Message-ID: <p3qdnfBK5NmLBTGgXTWcpA@News.GigaNews.Com>
Source record: 132971

What a moron. No.., a fuckhead.

"N W O" <ham mer@bigfoot.com> wrote in message
news:j47oqugs17iifi37hhomd92thbj7qkrs00@4ax.com...
>
> The ultimate cable for wire antennas or guys for your tower
> You must check this out folks ..... an excellent all round product.
>
> http://www.koolpages.com/killtown/pentanium.html
>
>

883. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 23:07:17 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoi735$a6a$0@208.206.142.85>
Source record: 132972

Ian Jackson wrote:
>
> >> Oh dear! I did something nearly as bad.
> >> At a 'special event' station, I distinctly remember using a coax-fed 20m
> >> dipole on 40m (tuner at the TX end). It seemed to work well enough to
> >> get several (winter) daylight contacts up to 100 miles. Where did I go
> >> wrong?
> >> 73, Ian.
> >
> >
> > Looks like you got lucky. The high reflected didn't smoke anything and
> >your coax and matching network was able to handle it all without arcing.
> >Not everyone is so blessed.
>
> No, not lucky, just didn't believe it wouldn't work.
> Flimsy TV semi-airspaced coax seemed to handle 200W OK.
> Tuner was best quality British KW Electronics E-Zeematch.
> Oops.... I see that I typed 100 miles - meant to say 1000 (UK to
> Mediterranean).
> Ian.

You might want to check with Ian and Dan, they seem to think that
inefficient antenna systems won't ever do the job. And that setup was
surely inefficient.

Dick

884. FS: Rigger's Bible, Rare, Hardbound, Leach, heavy rigging book

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 23:08:19 UTC
From: chrisoc@westnet.com
Message-ID: <fc3f730c.0210151508.2995fe24@posting.google.com>
Source record: 132973

I have an unusual book for sale that used to belong
to a radio antenna engineer in S. Jersey.
It seems to be extremely expensive at the dealers so
I put a low start price on it. This group might have
folks who care about that subject!
See

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1778229504&ssPageName=ADME:B:LC:US:1

if you are interested.

885. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 23:21:16 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0210151521.6ba2242a@posting.google.com>
Source record: 132974

"Dean Elwood" <dean@legallyspeaking.co.uk> wrote in message
news:<ao3q8k$15f$1@helle.btinternet.com>...
> Well, I measured my loft last night. I have two separate attic spaces, which
> could be connected by drilling a small hole in some plasterboard. I have
> about 18ft available space in each, so theoretically, could put up a 36 ft
> or so dipole (which would get me nicely onto 20m which is about 33).
>
> Question is this: Because this space is in the apex of the roof, there's no
> way I could set a dipole's legs out straight. They would be slightly
> s-shaped (not massively off though). Is that likely to make a big
> difference? There would need to be some support at these bends, probably by
> way of pulling the leg one way or the other with a cord of some sort.
>
> If so, would you say that a stealth antenna on the roof (maybe one of the
> Isotropic things) is better than a slightly crooked dipole in the attic? I
> appreciate there's a whole bunch of variables to that question, but as a
> general rule of thumb?
>
> Oh, cost is also a factor - dipole's are very cheap, Isotropics are quite
> expensive for that they are.
>
> Thanks,
>
> D

There is no need to run dipoles in a straight line, Z-shaped dipoles
have been known to work quite well. Keep it away from metallic objects
and it won't hurt to use insulated wire. As far as length is concerned
there will no ill effects if you simply bend the ends down verticlly
for a couple feet to reduce the installation length four feet or so
while still achieving the proper resonant length. Much simpler than
getting involved with complexities like capacity hats particulary on
the higher HF bands like 20. Cut the antenna two feet longer than the
calculation indicates for your center frequency and nip off short
(3")equal lengths of wire from each end until you obtain the lowest
SWR.

w3rv

886. Re: Calculation for ant length

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-15 23:59:11 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <uqpauk9g4l8jf9@corp.supernews.com>
Source record: 132976

divide the desired freq in to 2856 for the length of a 1/4 wave antenna in
inches.

"Paul Henry" <spamtrap> wrote in message
news:3dac7741$0$9445$cc9e4d1f@news.dial.pipex.com...
> Hi all
>
> I hope someone out there may be able to help
>
> I remember a while back a radio ham who lived next to me gave me a
> calculation you could use to work out what length the ant should be at a
set
> freq. such as 16" for 169mhz
>
> He's long and gone now sadly but I cant for the life of me remember what
the
> calculation was anyone out there in cyber land help us out.
>
> Thanks guys
>
> Paul
>
>

887. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 00:00:32 UTC
From: Ralph D'Andrea <K0RFD@gjbiz.com>
Message-ID: <1103_1034726478@netnews.attbi.com>
Source record: 132975

On Tue, 15 Oct 2002 15:07:22 GMT, sburgoyne@faux9bit.qc.ca (Stephan) wrote:
> Hello,
>
> maybe this is an old question, but I haven't found an answer yet.
>
> Why is bare copper preferred for a dipole antenna on HF ?
> Why do textbooks say so ?

OK, I've read all the replies thus far. Some say "there's a difference, but you probably won't notice it",
others say "There's no difference"

My own personal feeling is that you have to look at what you're gaining and/or losing in each decision.

Insulated wire will probably build up lots less static in a windstorm or a snowstorm. Whatever method you choose
to get rid of the static will probably be lossy; maybe more lossy than the difference between insulated and bare
wire.

I think when one figures in practical considerations, the theoretical differences will become lots less
important. Then, you have to figure you can get insulated wire at Home Depot cheap. I dunno, if you want to
agonize over fractions of a dB, be my guest. I'd go with whatever I could get my hands on. The fact that it
isn't gonna build up thousands of volts of static during a snowstorm is only a tiebreaker.

888. WeatherProofing antenna connections??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 00:05:18 UTC
From: SniperMan <pti@capnet.com>
Message-ID: <3DACAD3E.1B426CD@capnet.com>
Source record: 132977

Is OxGard good for weatherproofing antenna connections?
(Bronze ground rod and clamp)

Do you coat this stuff between the mating metals or just
around it to keep the WX out?

Please be specific.

889. Inv-L works better than R7.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 00:07:22 UTC
From: SniperMan <pti@capnet.com>
Message-ID: <3DACADBA.E1A65BDB@capnet.com>
Source record: 132978

Didn't think an Inv-L cut for 160 m would work that good for
17m and above but it does.

2 S units better. Gonna trash the R7

890. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 00:45:55 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210151645.315ca78a@posting.google.com>
Source record: 132979

CAM <Cecil.A.Moore@ieee.org> wrote in message news:<3DAC626B.45FAB443@ieee.org>...
> Stephan wrote:
> > Why is bare copper preferred for a dipole antenna on HF ?
> > Why do textbooks say so ?
>
> A bare wire is always less lossy than an identical wire with
> insulation since the insulation has dielectric losses. Those
> textbooks can back up their claims with 0.1 dB loss
> calculations. :-) I'm a purist but I used insulated wire in
> AZ to reduce the wind-induced static. Not a problem in Phoenix
> or East Texas, but the Damned Yankee Hams tell me that there is
> such a thing as snow-induced static which can be reduced by
> using insulated wire.

Cecil,
How do you calculate the LOSS on a wire that is insulated such as the new Steppir antenna? Can you calculate it from the resulting shorter radiating length, ie continuous loading as with say bare steel without insulation?
One person informed me that the resulting radiator antenna shortage was indicative of a more efficient radiator but did not explain efficiency with respect to length, radiation or what ever but did mention that the insulator SURFACE was what counted! I assumed that with a good insulator he was saying that the glass fibre SURFACE acted as a reflecting radiator! He was an expert (technical consultant)so I was left thoroughly confused .
Art

891. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 00:53:36 UTC
From: K7JEB <k7jeb@arrl.no_spam.net>
Message-ID: <kM2r9.7604$1P1.589663@bgtnsc05-news.ops.worldnet.att.net>
Source record: 132980

K7JEB:
>> In other words, its effective height is 1/2 its physical height

Richard Clark, kb7qhc:
> Your statement above is a form of infinite regress. That is, you have
> taken a physical form, translated it into an electrical equivalent,
> taken that electrical equivalent to cast it back into a smaller
> physical form. The unbounded regressive repetition of this argument
> devolves into a senseless conclusion that no antenna is useful because
> it is always shorter than it appears to be.

Not quite. To predict the output voltage of an electrically
small monopole, the effective height has to be known. For
the simple case of a single, unobstructed, 1-meter vertical
rod, that's one-half its physical length. If you want to
work that particular case in reverse, from effective height
back to physical height, multiply the effective height by
two.

> Infinite regressions often give the appearance of magic
> as a major component to the "logic" of the statement.

Yeah, kinda like fractals. ;-)

--
Jim Bromley, K7JEB k7jeb @ arrl.net
Glendale, Arizona

892. Swan TB-2 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 00:53:54 UTC
From: fvracr@aol.com
Message-ID: <20021015205354.25130.00002775@mb-mv.aol.com>
Source record: 132981

I would like to get information on the Swan TB-2, 2 element beam antenna.

Thanks,
Kirk Mohror
K7EKM

893. Re: Gamma rod construction question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 01:05:46 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210151705.f2957f0@posting.google.com>
Source record: 132982

CAM <Cecil.A.Moore@ieee.org> wrote in message news:<3DAC63B1.3189D713@ieee.org>...
> ehsjr@bellatlantic.net wrote:
> > Thanks. I've used plexiglass before, but I've heard it
snip
C certainly becomes brittle and shatters over time
> when exposed to UV. If I were you, I would use LEXAN(R)
> which, if I remember right, is a polycarbonate and is
> used for airplane windshields.

That to me is a real surprise! Lexan when subject to certain cleaners,
petrolium e.t.c develops crases (small fissures on its surface) that
ruins it
for such an aplication. I was awarded a medalion encapsulated in Lexan
which my wife cleaned and immediatly destroyed the surface
transparency.
I have also seen a Lexan article shatter into small pieces when
dropped which shocked a lot of people. This was caused because the
Lexan was not thoroughly
dried prior to molding. When all proper precautions are taken it is
extremely resistant to impact.
Art

894. OT? Please Assist With HF Emergency Comms Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 01:21:22 UTC
From: riffin-rich <riffin-rich@cantspam.me>
Message-ID: <1kcpqu40evq4h1lbfk8a4pgh2urqr9h45o@4ax.com>
Source record: 132983

Hello all. I'm not sure how off topic my question is, but, it's kinda'sorta' based on my antenna. I'm going to be deep in the mountains of Colorado for a week, starting this Friday night (18 Oct). We'll be over an hour from any cell phone coverage and VHF/UHF repeaters. The only emergency comms we'll have is my mobile radio that I finally got set-up last week. I'm using an IC-706 barefoot, with an SGC-230 coupler and SGC-303 antenna. My personal experiences are that the antenna does pretty well on 20M and up (given only 2 days of use)...I'm assuming it will do okay on 40M as well, if I need to...?

If we have an emergency and need to call for help, what frequencies are best to use? The concern I have is that my non-licensed, non-tech friends won't know how to find/use freqs the way I might, not that I'm all that good at HF work myself... I'll show my friends how to use the radio (and give them a list of freqs to use)...so they can transmit a "mayday" if I'm disabled in some way.

Also, I'm not sure where my truck will be if it's needed--it could be a couple of hundred feet down in a rock-faced canyon (that's where our camp site is) or it could be high on the top of a mountain-top plateau.

Any thoughts/suggestions? Do the HF bands have "call" freqs that we should aim for? To date, I've not learned of any or noticed any such freqs. Finally, is anyone interested in trying to set-up a nightly chat on any particular freq, say around 1900 MST? Many thanks...

73 Rich KB2ZMF, CO Springs
(sorry about the dead e-mail address ... I hate spam and this technique works!)

895. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 02:10:00 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aoihpn$6u8$1@knossos.btinternet.com>
Source record: 132984

> Reg, what's the name of your program that > calculates the length of the
> matching section for a non-resonant >dipole?
==========

I don't recall having a program which does this directly.

First find dipole feedpoint impedance Zin = R+jX. You can use programs DIPOLE3 or DIPCAGE1 for this. (Don't expect them both to give the same answer. <grin>)

Then insert Zin into program MATCHSEC (matching section).

==========
It is frequently impossible to design a matching section having practical values of Zo which fits neatly between the antenna and the end of the feedline. But by allowing the matching section to be moved a short distance from the antenna towards the transmitter an extra degree of freedom becomes available. A match can still be maintained by moving the matching section a whole number of half-waves along the feedline nearer to the transmitter.

For given feedline Zo and antenna Zin, Program MATCHSEC allows a wider choice of Zo for the matching section. It then calculates the length of matching section and the length of feedline between matching section and antenna.

As a sideline, for given Zo, the program also calculates the wire spacing of balanced lines and the diameter of the outer conductor of coaxial lines, both line types being air-spaced.

Try not to forget the sign of Xin in Rin + jXin.

896. Re: OT? Please Assist With HF Emergency Comms Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 02:18:59 UTC
From: dplatt@radagast.org
Message-ID: <uqpj4j51osir4d@corp.supernews.com>
Source record: 132986

>Any thoughts/suggestions? Do the HF bands have "call" freqs that we
>should aim for? To date, I've not learned of any or noticed any such
>freqs.

The ARRL band plans don't list any specific SSB calling frequencies
for 10 meters and longer.

My guess would be that frequencies just above the bottom of the band's
General-class phone sub-band would probably be the best place to start
calling.

In an emergency, the first thing I'd do in a case like this, probably,
would be to jump there, tune up a bit until I found a QSO in
progress, wait until a loud-and-clear voice _stopped_ talking, and
then start an emergency call. If you can hear 'em there's a
reasonable chance you can work 'em.

40M may be be dicey at night due to QRM from commercial AM
broadcasts in Europe. In a legitimate emergency you could transmit
SSB phone in the bottom CW portion of the band... there's a reasonable
chance someone would hear you, as some CW operators listen in SSB part
of the time. I'd probably try 20M first, though.

A low-mounted dipole would tend to give you a high radiation angle...
and for local emergency comms over distances of a couple of hundred
miles this isn't a bad thing, as high-angle skywave reflection would
work in your favor.

>(sorry about the dead e-mail address ... I hate spam and this
>technique works!)

I'd advise against using any similar technique when calling CQ on HF
>>grin<<

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

897. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 02:19:28 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aoiibg$12q$1@paris.btinternet.com>
Source record: 132985

```
> One person informed me
======================
He was pulling your leg. The usual story is "I read somewhere" ;o)
```

898. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 02:38:41 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210151838.35eff9f6@posting.google.com>
Source record: 132987

Owen Duffy <owen@oda.com.au> wrote in message news:<3DAC6C10.F2C921B@oda.com.au>...
> Stephan wrote:
> >
> > Hello,
> >
> > maybe this is an old question, but I haven't found an answer yet.
> >
> > Why is bare copper preferred for a dipole antenna on HF ?
>
> For the same copper size, won't the insulated wire have greater mass and
> more importantly in most applications, higher wind resistance?

Yes, and more weight also. But I still prefer insulated stranded
copper wire for wire antennas myself. I use both #12 and #14. I'm
starting to prefer the #14 because it is lighter and plenty strong
enough. The wire doesn't corrode, it doesn't break easy, and I can
pick the color to blend with the qth. If there is any difference
between the two, I've never worried about it. It's so small I've never
been able to notice it. Plus, standard house wire is cheap. About
$19-$20 for 500 ft of 14 gauge stranded last time I looked. Thats been
a while, so don't know the current price of copper lately...And you
get to pick from many designer colors. I like light grey and light
blue. I'm starting to think I like the grey the best. It stands out
less running through trees, etc. The blue tends to reflect a lot of
light, and stand out if the sun is at the right angle. :(
MK

899. Re: OT? Please Assist With HF Emergency Comms Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 03:35:57 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DACDE09.467FF23E@tampabay.rr.com>
Source record: 132989

also remember that who ever you get on the radio will be a long ways away
and not know where in the world you are so i would suggest a portable GPS
and also arrange for a fellow ham or hams in your home area to monitor a
given freq to listen for emergncy call could be a good think for a club to
help out with
the chances of you finding someone in your area (100-200miles) that would
have any idea who to call for help let alone where you are to get help
think about it someone in your party has fallen down a cliff or is snake
bit and needs help ASAP do you really want to rely on HF to get help from
people in far away areas or even another country by the time they figure
out who you are where exactly you are and who to contact for help the
people who was injured would be dead
good luck

riffin-rich wrote:

> Hello all. I'm not sure how off topic my question is, but, it's
> kinda'sorta' based on my antenna. I'm going to be deep in the
> mountains of Colorado for a week, starting this Friday night (18 Oct).
> We'll be over an hour from any cell phone coverage and VHF/UHF
> repeaters. The only emergency comms we'll have is my mobile radio
> that I finally got set-up last week. I'm using an IC-706 barefoot,
> with an SGC-230 coupler and SGC-303 antenna. My personal experiences
> are that the antenna does pretty well on 20M and up (given only 2 days
> of use)...I'm assuming it will do okay on 40M as well, if I need
> to...?
>
> If we have an emergency and need to call for help, what frequencies
> are best to use? The concern I have is that my non-licensed, non-tech
> friends won't know how to find/use freqs the way I might, not that I'm
> all that good at HF work myself... I'll show my friends how to use
> the radio (and give them a list of freqs to use)...so they can
> transmit a "mayday" if I'm disabled in some way.
>
> Also, I'm not sure where my truck will be if it's needed--it could be
> a couple of hundred feet down in a rock-faced canyon (that's where our
> camp site is) or it could be high on the top of a mountain-top
> plateau.
>
> Any thoughts/suggestions? Do the HF bands have "call" freqs that we
> should aim for? To date, I've not learned of any or noticed any such
> freqs. Finally, is anyone interested in trying to set-up a nightly
> chat on any particular freq, say around 1900 MST? Many thanks...
>
> 73 Rich KB2ZMF, CO Springs

> (sorry about the dead e-mail address ... I hate spam and this
> technique works!)

900. Gamma match verse Hairpin match verse T match

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 03:49:01 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DACE1AD.A20E0DA7@netscape.net>
Source record: 132990

I've read through the ARRL Handbook (18th) pretty thoroughly. It discusses the gamma and hairpin match (and others), but it doesn't really say much about about the pros and cons of them. I know the gamma match was widely used in the past. I see the T match and hairpin match being used on newer HF beams and some VHF antennas. What are the advantages of the T match and Hairpin match over the good old gamma match?

Scott.

901. Re: Calculation for ant length

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 03:52:09 UTC
From: richardharrison@webtv.net
Message-ID: <14898-3DACE269-446@storefull-2316.public.lawson.webtv.net>
Source record: 132992

Fred Hambrecht wrote:
"divide the desired frequency into 2856 for the length of a 1/4 wave antenna in inches."

When 234 is multiplied by 12, the product is 2808 for the calculation of a 1/4-wave antenna in inches. Using 2856 will produce a dividend about 1.7% longer than using 2808. No big deal. For the 169 MHz antenna, the "wire" is likely a self-supporting rod. This will be on the fat side of L/d`s. Velocity will be on the slow side, so not so much length is needed to complete 90 degrees. My guess is that 2808 will come closer to 1/4 wave when divided by 169 MHz for the required number of inches. The dividend is 16.6 inches..

1.7% longer won`t hurt, and will ensure there`s enough to trim for exact resonance if that`s your pleasure.

Best regards, Richard Harrison, KB5WZI

902. Re: OT? Please Assist With HF Emergency Comms Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 03:59:00 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoio64pae0@208.206.142.102>
Source record: 132991

riffin-rich wrote:
>
> Hello all. I'm not sure how off topic my question is, but, it's
> kinda'sorta' based on my antenna. I'm going to be deep in the
> mountains of Colorado for a week, starting this Friday night (18 Oct).
> We'll be over an hour from any cell phone coverage and VHF/UHF
> repeaters. The only emergency comms we'll have is my mobile radio
> that I finally got set-up last week. I'm using an IC-706 barefoot,
> with an SGC-230 coupler and SGC-303 antenna. My personal experiences
> are that the antenna does pretty well on 20M and up (given only 2 days
> of use)...I'm assuming it will do okay on 40M as well, if I need
> to...?
>
> If we have an emergency and need to call for help, what frequencies
> are best to use? The concern I have is that my non-licensed, non-tech
> friends won't know how to find/use freqs the way I might, not that I'm
> all that good at HF work myself... I'll show my friends how to use
> the radio (and give them a list of freqs to use)...so they can
> transmit a "mayday" if I'm disabled in some way.
>
> Also, I'm not sure where my truck will be if it's needed--it could be
> a couple of hundred feet down in a rock-faced canyon (that's where our
> camp site is) or it could be high on the top of a mountain-top
> plateau.
>
> Any thoughts/suggestions? Do the HF bands have "call" freqs that we
> should aim for? To date, I've not learned of any or noticed any such
> freqs. Finally, is anyone interested in trying to set-up a nightly
> chat on any particular freq, say around 1900 MST? Many thanks...
>

Om 40, 7255 and 7258 are (or were) active, with the Midwest Amateur Radio Service known as MIDCARS occupying 7258, and WESTCARS on 7255. Last time I checked (been a few months) MIDCARS was active but I have no information on the status of WESTCARS on the west coast. Generally populated by retired geezers with nothing better to do <g> and are glad to assist anytime. Problem is coverage and activity tends to be spotty depending on who is interested and available at any given time. They would be good spots to check for activity.

On 20 you might catch the Maritime Mobile Service net around 14.315, not certain of its exact frequency these days but you will find it if you search. They would be happy to assist in an emergency even if you're not maritime mobile.
Otherwise as someone else said, just break a QSO in progerss. Normally

one "break" is a routine call, "Break-break" is something more pressing,
and a triple-break denotes an emergency.

Dick

903. Re: OT? Please Assist With HF Emergency Comms Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 04:22:08 UTC
From: riffin-rich <riffin-rich@cantspam.me>
Message-ID: <6ippqucm67eoi127satdq0bfmpt5ngdd2c@4ax.com>
Source record: 132993

Thanks Dennis. Actually, we're loaded to the gills with GPS and maps...we'll know exactly where we are. On my instruction sheet to keep near the radio, I'll be posting some basic radio operator instructions and other pertinent info such as our GPS coordinates, and the phone numbers for the closest sheriff's station, etc.. So, assuming that one of them can get through to anyone else, they'll have no problem directing law enforcement and/or search and rescue teams right to us.

Dave Platt's advice was great too. I figured I'd personally start at each of the bottom of the bands too...but I never even considered calling in the CW freq allocations...I'd imagine that could draw some great attention. I'm not sure how to best to train them on the CW/Phone band allocations just yet...I'll have to give that some thought...I don't want to make it too difficult, especially if someone's panicking.

Also, Dick Carroll wrote the "Break/Break/Break" protocol in an adjacent post ... I didn't know that ... thanks Dick!

If anyone else has anything to add, please don't hesitate. I'll be monitoring this thread until late Thursday evening and/or early Friday morning. You guys are fantastic! Thanks again...

Respectfully/73 Rich KB2ZMF, CO Springs
(sorry about the dead e-mail address ... I hate spam and this technique works!)

On Wed, 16 Oct 2002 03:35:57 GMT, Dennis Kaylor
<k4oxg@tampabay.rr.com> wrote:

>also remember that who ever you get on the radio will be a long ways away
>and not know where in the world you are so i would suggest a portable GPS
>and also arrange for a fellow ham or hams in your home area to monitor a
>given freq to listen for emergncy call could be a good think for a club to
>help out with
>the chances of you finding someone in your area (100-200miles) that would
>have any idea who to call for help let alone where you are to get help
>think about it someone in your party has fallen down a cliff or is snake
>bit and needs help ASAP do you really want to rely on HF to get help from
>people in far away areas or even another country by the time they figure
>out who you are where exactly you are and who to contact for help the
>people who was injured would be dead
>good luck
>
>riffin-rich wrote:

>
>> Hello all. I'm not sure how off topic my question is, but, it's
>> kinda'sorta' based on my antenna. I'm going to be deep in the
>> mountains of Colorado for a week, starting this Friday night (18 Oct).
>> We'll be over an hour from any cell phone coverage and VHF/UHF
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>> are that the antenna does pretty well on 20M and up (given only 2 days
>> of use)...I'm assuming it will do okay on 40M as well, if I need
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>> If we have an emergency and need to call for help, what frequencies
>> are best to use? The concern I have is that my non-licensed, non-tech
>> friends won't know how to find/use freqs the way I might, not that I'm
>> all that good at HF work myself... I'll show my friends how to use
>> the radio (and give them a list of freqs to use)...so they can
>> transmit a "mayday" if I'm disabled in some way.
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>> Also, I'm not sure where my truck will be if it's needed--it could be
>> a couple of hundred feet down in a rock-faced canyon (that's where our
>> camp site is) or it could be high on the top of a mountain-top
>> plateau.
>>
>> Any thoughts/suggestions? Do the HF bands have "call" freqs that we
>> should aim for? To date, I've not learned of any or noticed any such
>> freqs. Finally, is anyone interested in trying to set-up a nightly
>> chat on any particular freq, say around 1900 MST? Many thanks...
>>
>> 73 Rich KB2ZMF, CO Springs
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>> technique works!)

904. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 04:58:48 UTC
From: richardharrison@webtv.net
Message-ID: <29792-3DACF208-467@storefull-2315.public.lawson.webtv.net>
Source record: 132994

Richard Clark, KB7QHC wrote:
"This suggests that knowing V/M and trying to translate that into a known voltage applied to a receiver is useless."

Don`t despair. As previously posted, Terman wrote:
"---rate at which energy is abstracted (power) from the wave is (volts per meter x effective antenna height in meters) squared, divided by twice the radiation resistance---."

That`s just E squared over R.

The effective height is the vertical component of the height. If the entire antenna is exactly vertical, the effective height is the entire antenna length (up to a point, anyway).

The volts per meter is the field intensity.

The denominator is twice the radiation resistance because a conjugate match is assumed to extract maximum power from the wave. The load is the radiatiation resistance of the antenna plus the matched load resistance.

Power available to the receiver is the total of the 1-meter antenna segments voltages in series squared, divided by twice the radiation resistance of the antenna. In microwave systems when this is measured, it is called the "received carrier power".

When you have an available power and it is losslessly transmitted through a system, all that`s needed is the impedance at any point to predict the volts and amps. If there are losses, it`s convenient to express everything in db to conveniently total the losses and identify the "level" at any desired point.

Best regards, Richard Harrison, KB5WZI

905. Re: Comet SBB-7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 05:44:18 UTC
From: Matt & Wendy <mapwam@frontiernet.net>
Message-ID: <uqpkqpoen4f3b7@corp.supernews.com>
Source record: 132988

Which section of the three is the 440 section. I understand SWR theory, but
I wasn't given any documentation with the antenna.
"Fred Hambrecht" <w4jle@charter.net> wrote in message
news:uqnadv83sekdf8@corp.supernews.com...
> Shorten the 440 antenna. From what you have indicated it is too long.
>
> "Matt & Wendy" <mapwam@frontiernet.net> wrote in message
> news:uqmt9tjktjr688@corp.supernews.com...
> > I need help tuning a Comet SBB-7 antenna. It is a 146-450 antenna with
two
> > loading coils. I can tune the 144-148 mhz from about 1.0 to about 1.4.
But
> > the 440 region gives me trouble. I can tune the antenna from 440-447 to
> > about 1.5, but from 448-450, the SWR spikes. Literally goes off the
meter.
> > Any help?
> >
> >
>
>

906. Re: OT? Please Assist With HF Emergency Comms Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 05:45:18 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DACFCEE.619AC623@cwis.net>
Source record: 132995

I'd suggest charging the batteries and taking
your cell phone with you...
'Doc

907. Re: Calculation for ant length

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 05:57:29 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <uqpvuc3rvh2131@corp.supernews.com>
Source record: 132996

That's why the make Chocolate and Vanilla, everyone gets a choice. As you pointed out, in reality it will be a bit long. My experience is that it is easier to trim to length, than to stretch rod. :>) But then again, I know of no formula that gives an exact length that works under all conditions.

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:14898-3DACE269-446@storefull-2316.public.lawson.webtv.net...
> Fred Hambrecht wrote:
> "divide the desired frequency into 2856 for the length of a 1/4 wave
> antenna in inches."
>
> When 234 is multiplied by 12, the product is 2808 for the calculation of
> a 1/4-wave antenna in inches. Using 2856 will produce a dividend about
> 1.7% longer than using 2808. No big deal. For the 169 MHz antenna, the
> "wire" is likely a self-supporting rod. This will be on the fat side of
> L/d`s. Velocity will be on the slow side, so not so much length is
> needed to complete 90 degrees. My guess is that 2808 will come closer to
> 1/4 wave when divided by 169 MHz for the required number of inches.
> The dividend is 16.6 inches..
>
> 1.7% longer won`t hurt, and will ensure there`s enough to trim for exact
> resonance if that`s your pleasure.
>
> Best regards, Richard Harrison, KB5WZI
>

908. Re: Comet SBB-7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 06:00:17 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <uqq03jh8583767@corp.supernews.com>
Source record: 132997

I am not familiar with the particular antenna, but the top section should be the 440 section. You will then have to readjust the 144 section. If all else fails, take a look at the simple plans for a dual band antenna on Arrow Antenna's site.

"Matt & Wendy" <mapwam@frontiernet.net> wrote in message news:uqpkqpoen4f3b7@corp.supernews.com...
> Which section of the three is the 440 section. I understand SWR theory, but
> I wasn't given any documentation with the antenna.
> "Fred Hambrecht" <w4jle@charter.net> wrote in message
> news:uqnadv83sekdf8@corp.supernews.com...
> > Shorten the 440 antenna. From what you have indicated it is too long.
> >
> > "Matt & Wendy" <mapwam@frontiernet.net> wrote in message
> > news:uqmt9tjktjr688@corp.supernews.com...
> > > I need help tuning a Comet SBB-7 antenna. It is a 146-450 antenna with
> two
> > > loading coils. I can tune the 144-148 mhz from about 1.0 to about 1.4.
> But
> > > the 440 region gives me trouble. I can tune the antenna from 440-447
to
> > > about 1.5, but from 448-450, the SWR spikes. Literally goes off the
> meter.
> > > Any help?
> > >
> > >
> >
> >
>
>

909. Re: OT? Please Assist With HF Emergency Comms Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 06:07:20 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <uqq0gqdrhik5e9@corp.supernews.com>
Source record: 132998

Basing you life on the vagaries of amateur radio is foolish, particularly since your companions are non hams. I would recommend you rent a satellite phone for the trip and use the 706 for fun and routine comms.

"riffin-rich" <riffin-rich@cantspam.me> wrote in message news:1kcpqu40evq4h1lbfk8a4pgh2urqr9h45o@4ax.com...
> Hello all. I'm not sure how off topic my question is, but, it's
> kinda'sorta' based on my antenna. I'm going to be deep in the
> mountains of Colorado for a week, starting this Friday night (18 Oct).
> We'll be over an hour from any cell phone coverage and VHF/UHF
> repeaters. The only emergency comms we'll have is my mobile radio
> that I finally got set-up last week. I'm using an IC-706 barefoot,
> with an SGC-230 coupler and SGC-303 antenna. My personal experiences
> are that the antenna does pretty well on 20M and up (given only 2 days
> of use)...I'm assuming it will do okay on 40M as well, if I need
> to...?
>
> If we have an emergency and need to call for help, what frequencies
> are best to use? The concern I have is that my non-licensed, non-tech
> friends won't know how to find/use freqs the way I might, not that I'm
> all that good at HF work myself... I'll show my friends how to use
> the radio (and give them a list of freqs to use)...so they can
> transmit a "mayday" if I'm disabled in some way.
>
> Also, I'm not sure where my truck will be if it's needed--it could be
> a couple of hundred feet down in a rock-faced canyon (that's where our
> camp site is) or it could be high on the top of a mountain-top
> plateau.
>
> Any thoughts/suggestions? Do the HF bands have "call" freqs that we
> should aim for? To date, I've not learned of any or noticed any such
> freqs. Finally, is anyone interested in trying to set-up a nightly
> chat on any particular freq, say around 1900 MST? Many thanks...
>
> 73 Rich KB2ZMF, CO Springs
> (sorry about the dead e-mail address ... I hate spam and this
> technique works!)

910. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 06:10:15 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <JrPIF8EHLQr9EAHw@ifwtech.co.uk>
Source record: 133001

Reg Edwards wrote:
>I always use solid enamelled copper wire because its almost impossible to
>obtain the solid bare stuff.
>
>And it's very difficult to wind your own close-wound tuning coils with bare
>wire.
>
>To obtain bare solid wire it is necessary to persuade an enamelled copper
>wire manufacturer to sell you some before he enamells it.
>
In the UK you could get bare copper from suppliers such as Westlake and the Scientific Wire Company... if you really want it. I agree with Reg, though: it's no big deal, so use what's easiest to find, which is probably enamelled.

However, there are various grades of enamel. 'Electronic' grades typically use the light-coloured polyurethane, which will start to crack and flake after a few years in the air. If you can, it's better to go to a winding shop and get the dark brown stuff, which is tough as old boots and will last forever.

Enamelled wire will almost always be soft-drawn because it is intended for winding purposes. For antenna use you need to pre-stretch it, or else it will always hang loose in the air. Ideally, lay out the wire below where it is to be hauled up, and stretch it there so you don't have to coil it again. The first bit of stretch comes very easily - when it starts to fight back, stop pulling.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

911. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 06:19:12 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <uqq1745qa2nld3@corp.supernews.com>
Source record: 132999

Unless your want is to pick fly crap out of pepper, there is no difference between the two.

The whole subject is nonsense unless your worried about and inch or so difference on 75 meters. My guess is if you went to all the "experts" QTH's and looked at their antennas, you will find the determine factor was what they had on hand or what was cheaper at Home Depot.

Art Unwin KB9MZ" <aunwin@fgi.net> wrote in message
news:c4becf19.0210151645.315ca78a@posting.google.com...
> CAM <Cecil.A.Moore@ieee.org> wrote in message
news:<3DAC626B.45FAB443@ieee.org>...
> > Stephan wrote:
> > > Why is bare copper preferred for a dipole antenna on HF ?
> > > Why do textbooks say so ?
> >
> > A bare wire is always less lossy than an identical wire with
> > insulation since the insulation has dielectric losses. Those
> > textbooks can back up their claims with 0.1 dB loss
> > calculations. :-) I'm a purist but I used insulated wire in
> > AZ to reduce the wind-induced static. Not a problem in Phoenix
> > or East Texas, but the Damned Yankee Hams tell me that there is
> > such a thing as snow-induced static which can be reduced by
> > using insulated wire.
>
> Cecil,
> How do you calculate the LOSS on a wire that is insulated such as the
> new Steppir antenna? Can you calculate it from the resulting shorter
> radiating length, ie continuous loading as with say bare steel without
> insulation?
> One person informed me that the resulting radiator antenna shortage
> was indicative of a more efficient radiator but did not explain
> efficiency with respect to length, radiation or what ever but did
> mention that the insulator SURFACE was what counted! I assumed that
> with a good insulator he was saying that the glass fibre SURFACE acted
> as a reflecting radiator! He was an expert (technical consultant)so I
> was left thoroughly confused .
> Art

912. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 06:46:02 UTC
From: dplatt@radagast.org
Message-ID: <uqq2pab23lr3f6@corp.supernews.com>
Source record: 133000

In article <25eb70d7.0210151838.35eff9f6@posting.google.com>,
Mark Keith <nm5k@wt.net> wrote:

> Plus, standard house wire is cheap. About
>$19-$20 for 500 ft of 14 gauge stranded last time I looked. Thats been
>a while, so don't know the current price of copper lately...

No big difference. I think I paid about $19 for a 500-foot roll of
12-gauge THNN (?) stranded at Home Depot. Prices are no doubt a bit
higher at the local corner hardware store.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

913. old Radio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 10:28:23 UTC
From: silverfox8442@aol.com
Message-ID: <20021016062823.00874.00011410@mb-ms.aol.com>
Source record: 133002

Hi
I have an old radio called a star DXer SR40 on the back it said maid by smith
star
Radio japan as anyone any Information on this radio It looks verry much like
one of the early Hellicrafters
Any help greatfully received

Fox

914. Home brew atu

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 10:32:24 UTC
From: silverfox8442@aol.com
Message-ID: <20021016063224.00874.00011411@mb-ms.aol.com>
Source record: 133003

Hi
can anyone tel lme where I can findHomebrew cercuit for a ATU for end fed long wire SWLing
Fox

915. Re: Trunk mount question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 11:14:31 UTC
From: Dick <boleyd@yahoo.com>
Message-ID: <rSbr9.29362$Lg2.7368796@news2.news.adelphia.net>
Source record: 133004

If you have a low resistance connection to the trunk lid then you are in ok shape for VHF/UHF. You need at least 19" of metal around the base of the antenna to form the "other half" of the dipole. With the trunk mount the drawback is that you only have that in three directions. Also, there is a capacity coupling to the adjacent fender that may help in the fourth direction. Very little capacity is needed at these frequencies. If, however, this is for HF then bond the trunk to the body with braid - use old coax braid. Your DC ground is back at the radio/battery.
Dick N3HKN

"Andy KC2SSB" <vhfradiobuff@yahoo.com> wrote in message news:f5pmquonjulrmp55soc9o21p3v85hqjvb5@4ax.com...
> What is the best way to ensure a trunk mount is well grounded? Is
> there an easy way to remove the paint around the area where the screws
> go?
> =-
> 73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
> Beachwood, NJ USA Grid FM29vw
> http://vhfradiobuff.tripod.com

916. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 12:37:53 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210160437.29ab98ea@posting.google.com>
Source record: 133005

I see no one has mentioned this reason for using insulated wire.

What will the loss of the bare wire be in 2 or 3 years?

By the way, I use bare aluminum electric fence wire, because it is cheap. You can buy a 1/4 mile roll at a farm supply store for under $20. When it goes bad or breaks, I just replace it. And the stuff is remarkably strong, a lot stronger than Aluminum clothes line. It is not as strong as hard copper, but comparable to soft copper.

Jim
N8EE

917. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 13:04:50 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aojo5i$sk2$1@knossos.btinternet.com>
Source record: 133006

> What will the loss of the bare wire be in 2 or 3 years?
==========
Indistinguishable from what it is now.

918. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 13:11:08 UTC
From: Dean Elwood <dean@legallyspeaking.co.uk>
Message-ID: <aojohc$t67$1@knossos.btinternet.com>
Source record: 133007

Thanks, this is what I'm doing. I've got the wires cut and pretty much in place.

I'm after a balun so I can feed with coax. An internet search brought up a whole load of thin ethernet stuff (really useful to me!).

Where on earth (well, in the UK anyway) do you get 1:1 baluns??

Thanks,

D

"Brian Kelly" <kelly@dvol.com> wrote in message news:d22b54c3.0210151521.6ba2242a@posting.google.com...
> "Dean Elwood" <dean@legallyspeaking.co.uk> wrote in message news:<ao3q8k$15f$1@helle.btinternet.com>...
> > Well, I measured my loft last night. I have two separate attic spaces, which
> > could be connected by drilling a small hole in some plasterboard. I have
> > about 18ft available space in each, so theoretically, could put up a 36 ft
> > or so dipole (which would get me nicely onto 20m which is about 33).
> >
> > Question is this: Because this space is in the apex of the roof, there's no
> > way I could set a dipole's legs out straight. They would be slightly
> > s-shaped (not massively off though). Is that likely to make a big
> > difference? There would need to be some support at these bends, probably by
> > way of pulling the leg one way or the other with a cord of some sort.
> >
> > If so, would you say that a stealth antenna on the roof (maybe one of the
> > Isotropic things) is better than a slightly crooked dipole in the attic? I
> > appreciate there's a whole bunch of variables to that question, but as a
> > general rule of thumb?
> >
> > Oh, cost is also a factor - dipole's are very cheap, Isotropics are quite
> > expensive for that they are.
> >
> > Thanks,
> >
> > D
>

> There is no need to run dipoles in a straight line, Z-shaped dipoles
> have been known to work quite well. Keep it away from metallic objects
> and it won't hurt to use insulated wire. As far as length is concerned
> there will no ill effects if you simply bend the ends down verticlly
> for a couple feet to reduce the installation length four feet or so
> while still achieving the proper resonant length. Much simpler than
> getting involved with complexities like capacity hats particulary on
> the higher HF bands like 20. Cut the antenna two feet longer than the
> calculation indicates for your center frequency and nip off short
> (3")equal lengths of wire from each end until you obtain the lowest
> SWR.
>
> w3rv

919. Re: BEWARE!!!....Doug Calladonato.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 13:14:39 UTC
From: Technomage <technomage-hawke@cox.net>
Message-ID: <pan.2002.10.16.06.14.41.730.23610@cox.net>
Source record: 133008

well,
posting here will get you a couple of results:
1. you advise others not to deal with this person (let the buyer beware)
2. it may get his attention (and in means unwanted such as harrassment, etc).

also, if you have the originating snail mail address, send a complaint to the city atty general, and follow-up with one the county he resides in and the state. you might also send a complaint to the FBI (as this was an interstate crime it seems).

just some suggestions from one who has had similar experiences.

Technomage

In article <20021015200012.19555.00000135@mb-fs.aol.com>, "KLARRG" <klarrg@aol.com> wrote:

> ..Be aware that a gent by the name of Doug Calladonato
> (njscanner@comcast.net)is selling several scanners (approx. 21 of
> them..) and, is willfully and maliciously misrepresenting the condition
> of these units to obtain a sale on them.He sold me two that he
> represented as in "excellent working order" and, that he "tested himself
> before sending them to me" that are BOTH totally non-working, useless
> units. I am out a SUBSTANTIAL SUM OF $$$ and he denies they were
> non-working at time of sale.Mr. Calladonato outright lied and denied
> several Emails he initially sent me that represented theses radios I
> got from him as TOTALLY WORKING UNITS...he says one thing IN PRINT in
> the original Emails then DENIES IT in the later ones..even tho' I have
> it IN PRINT IN MY FILES FROM HIM !! (???!!)
>
> Upon opening the units, they were filled with poor-quality solder
> (attempted) repairs and had obviously been tampered with prior to the
> sale. The one unit has a squelch that will not close, and the unit wont
> even scan. The second one has such poor reception as to make it useless.
> If both units HAD been tested as seller stated, these problems would
> have been painfully obvious. I have contacted this gent asking him for a
> refund and he ignores my efforts entirely. I am posting this to advise
> any potential customers of this seller to AVOID doing business with him
> Currently, I am in the process of legal action againt this crook.His
> actions are obviously dishonest in nature and I have adequate proof in
> the form of Emails from him and, two DOA radios to prove it.
>
> Buyers beware AVOID THIS CLOWN !!.Dont get SCREWED like I did by this
> jerk !
>)<:

--
I will not be pushed, filed, stamped, indexed, briefed, debriefed, or numbered!
My life is my own - No. 6

920. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 13:19:02 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aojp06$qc2$0@208.207.71.145>
Source record: 133009

Art Unwin KB9MZ wrote:
>
> One person informed me that the resulting radiator antenna shortage
> was indicative of a more efficient radiator but did not explain

Sure it is! It's a percent or so (some quite small amount) shorter,
thus has less copper for less I^2R ohmic resistance, so it must be more
efficient!

Now *there's* a purist for you! <g>

Dick

921. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 13:51:25 UTC
From: richardharrison@webtv.net
Message-ID: <7725-3DAD6EDD-27@storefull-2311.public.lawson.webtv.net>
Source record: 133010

Jim Bolinger, N8EE wrote:
"What will be the loss in 2 or 3 years?"

The loss will likely be so near the same after the wire turns dark, brown, black, or green that any difference is difficult to measure.

Shortwave broadcast plants for transmission and reception that I`ve worked in and seen all used bare copper. Any performance difference due to tarnish was unheard of.

I had to install a 6-GHz microwave station in Port Sulphur, Louisiana near the Freeport Sulphur Plant. So happened, Freeport Sulphur was using the same microwave sets in their plant as we wanted to install. I visited them to inquire about precautions. No problem they said. No difference between bare copper and silver plate they said. We put our station in and measured its performance for years. Though the plumbing turned black inside and out within weeks, Freeport Sulphur was right. There was no measurable decline in performance of the radios.

Best regards, Richard Harrison, KB5WZI

922. Re: Gamma match verse Hairpin match verse T match

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 14:23:23 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <phucnepATMOl6zCgXTWc3w@News.GigaNews.Com>
Source record: 133011

Scott,

The gamma match is inherenty unbalanced, and does not require a balun, but uses a series capacitor. In commercial antennas, the capacitor is made by sliding a smaller tube inside a bigger one, with insulation in between. Unless you are copying something, this can make for complicated calculations. This is cheap to manufacture, most complicated if you just build one antenna. You don't want to do what is in the ARRL antenna book, which is to use an actual variable capacitor.

The T match is balanced, and requires a 4:1 balun. The balun is a NOOP, just 1/4 wavelength of 50 ohm coax. I have 2 antennas with this kind of match, works fine.

The hairpin match is balanced at 50 ohms, requires a 1:1 balun. Not sure how you would do this above 54 MHz.. The Hygain TH3MK4 tribander has this match.

Why not experiment. Since it is so simple, try the hairpin first, then the T. You don't have to put the antenna up in the air; for initial test, point the antenna straight up with the reflector a couple of feet off the ground. Based on measurements made on the TH3, the bandwidth gets a lot better once you get the antenna up in the air.

Tam/WB2TT
"Scott" <scott2rp789@netscape.net> wrote in message
news:3DACE1AD.A20E0DA7@netscape.net...
> I've read through the ARRL Handbook (18th) pretty thoroughly. It
> discusses the gamma and hairpin match (and others), but it doesn't
> really say much about about the pros and cons of them. I know the gamma
> match was widely used in the past. I see the T match and hairpin match
> being used on newer HF beams and some VHF antennas. What are the
> advantages of the T match and Hairpin match over the good old gamma
> match?
>
> Scott.
>

923. Re: Gamma match verse Hairpin match verse T match

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 14:40:35 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DAD7A63.4751430E@netscape.net>
Source record: 133012

Is any match more efficient than the others? Does any of these devices affect the pattern in any way? I have a well built gamma match with sliding tubes on my yagi was looking for advantages of switching to a T match or Hairpin match - no matter how small the advantage.

Scott.

Tarmo Tammaru wrote:

> Scott,
>
> The gamma match is inherenty unbalanced, and does not require a balun, but
> uses a series capacitor. In commercial antennas, the capacitor is made by
> sliding a smaller tube inside a bigger one, with insulation in between.
> Unless you are copying something, this can make for complicated
> calculations. This is cheap to manufacture, most complicated if you just
> build one antenna. You don't want to do what is in the ARRL antenna book,
> which is to use an actual variable capacitor.
>
> The T match is balanced, and requires a 4:1 balun. The balun is a NOOP, just
> 1/4 wavelength of 50 ohm coax. I have 2 antennas with this kind of match,
> works fine.
>
> The hairpin match is balanced at 50 ohms, requires a 1:1 balun. Not sure how
> you would do this above 54 MHz.. The Hygain TH3MK4 tribander has this match.
>
> Why not experiment. Since it is so simple, try the hairpin first, then the
> T. You don't have to put the antenna up in the air; for initial test, point
> the antenna straight up with the reflector a couple of feet off the ground.
> Based on measurements made on the TH3, the bandwidth gets a lot better once
> you get the antenna up in the air.
>
> Tam/WB2TT
> "Scott" <scott2rp789@netscape.net> wrote in message
> news:3DACE1AD.A20E0DA7@netscape.net...
> > I've read through the ARRL Handbook (18th) pretty thoroughly. It
> > discusses the gamma and hairpin match (and others), but it doesn't
> > really say much about about the pros and cons of them. I know the gamma
> > match was widely used in the past. I see the T match and hairpin match
> > being used on newer HF beams and some VHF antennas. What are the
> > advantages of the T match and Hairpin match over the good old gamma
> > match?
> >
> > Scott.
> >

924. Re: OT? Please Assist With HF Emergency Comms Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 14:44:02 UTC
From: Vito <vito@crosslink.net>
Message-ID: <3DAD7B32.1352A9C8@crosslink.net>
Source record: 133013

riffin-rich wrote:
>
> Hello all. I'm going to be deep in the
> mountains of Colorado for a week,....

Check out <http://www.vcars.org/CARL/NVIS.html>
73
K3DWW

925. FS A3S w 40 kit

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 15:18:57 UTC
From: wb4una@aol.com
Message-ID: <20021016111857.24058.00002447@mb-ms.aol.com>
Source record: 133014

i have a real good condition Cushcraft A3S with the 40 meter kit installed. i will sell it for 250.00 plus shipping from 29172..have manual..

thanks for reading....
Randy

ARS: WB4UNA
Randy Chavis
247 Goff Court
West Columbia
S.C. 29172

926. Re: Home brew atu

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 15:20:12 UTC
From: Brian <KG4IJR@atmc.net>
Message-ID: <aok0a2$22cb$1@news3.infoave.net>
Source record: 133015

"Silverfox8442" <silverfox8442@aol.com> wrote in message
news:20021016063224.00874.00011411@mb-ms.aol.com...
> Hi
> can anyone tel lme where I can findHomebrew cercuit for a ATU for end fed
long
> wire SWLing
> Fox

Arnie Coro has a couple of antenna tuners on his website; check out

http://www.radiohc.org/Distributions/arnie.html

Brian

927. Re: Pentanium Cable Spools

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 15:29:59 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <XBfr9.56841$VQ2.13472318@twister.midsouth.rr.com>
Source record: 133016

Is there a way to ban hammer@bigfoot.com from the newsgroup?

Ken

"N W O" <ham mer@bigfoot.com> wrote in message
news:j47oqugs17iifi37hhomd92thbj7qkrs00@4ax.com...
>
> The ultimate cable for wire antennas or guys for your tower
> You must check this out folks ..... an excellent all round product.
>
> http://www.koolpages.com/killtown/pentanium.html
>
>

928. Re: Pentanium Cable Spools

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 15:39:29 UTC
From: Allodoxaphobia <nobody@jonz.net>
Message-ID: <slrnaqr21g.11j.nobody@animas.frontier.net>
Source record: 133017

On Wed, 16 Oct 2002 15:29:59 GMT, Ken N4VSD hath writ:
> Is there a way to ban hammer@bigfoot.com from the newsgroup?

Just update your twit filters and move on...
usenet is like a cross country bus station in downtown
Saint Louis. You only want to 'interact' with less
than about 33% of the people you 'bump' into here.
It's up to *you* to do the selecting.

Jonesy

929. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 16:07:24 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210160807.29e4df50@posting.google.com>
Source record: 133018

dplatt@radagast.org (Dave Platt) wrote in message
news:<uqq2pab23lr3f6@corp.supernews.com>...
> In article <25eb70d7.0210151838.35eff9f6@posting.google.com>,
> Mark Keith <nm5k@wt.net> wrote:
>
> > Plus, standard house wire is cheap. About
> >$19-$20 for 500 ft of 14 gauge stranded last time I looked. Thats been
> >a while, so don't know the current price of copper lately...
>
> No big difference. I think I paid about $19 for a 500-foot roll of
> 12-gauge THNN (?) stranded at Home Depot. Prices are no doubt a bit
> higher at the local corner hardware store.

I get mine at depot also. But I paid $30+ for 500 ft of #12. But about
$19 for 500 ft of #14. You may have gotten #14. I used #12 for my
everyday dipoles, because when I put them up I wanted gross overkill
in wire. But I think I'll be sticking with #14 from now on. The #12 is
a good bit heavier. I don't think the extra weight is worth the small
difference in wire resistance. It's kind of like plain vs
insulated...I can't tell any real difference in comparing #12 against
#14. MK

930. Re: Gamma match verse Hairpin match verse T match

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 16:15:03 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210160815.62b39701@posting.google.com>
Source record: 132819

Scott <scott2rp789@netscape.net> wrote in message news:<3DACE1AD.A20E0DA7@netscape.net>...
> I've read through the ARRL Handbook (18th) pretty thoroughly. It
> discusses the gamma and hairpin match (and others), but it doesn't
> really say much about about the pros and cons of them. I know the gamma
> match was widely used in the past. I see the T match and hairpin match
> being used on newer HF beams and some VHF antennas. What are the
> advantages of the T match and Hairpin match over the good old gamma
> match?
>
> Scott.

I think you probably have a little better balance using the symetrical
matching device. Probably more critical for VHF/UHF than HF. Better
balance would mean less common mode problems. But both my 6m yagi and
my 2m yagi both use simple gamma matches. I haven't noticed any
problems with the patterns, and I haven't noticed any common mode
problems to speak of. I'd use a balanced device for a first class
setup, but I consider it optional. A gamma match will work just fine
usually. MK

931. Re: Gamma match verse Hairpin match verse T match

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 16:47:34 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <_U-dndSEweqfBTCgXTWcpQ@News.GigaNews.Com>
Source record: 132820

Scott,

I have never seen any discussion of efficiency of matching arrangements like what we are discussing. Clearly, there will be some loss in a balun (probably not measurable in the 4:1, which at 50 MHz is the loss of 3 - 4 feet of coax). But the series capacitor in the gamma match will have some loss also. I am grasping at straws here, but the T match might have some advantage because part of it is at 200 ohms; so, any small resistance in series will be a smaller percent. I think Mark has it right. Besides, don't fix it if it aint broke.

Tam/WB2TT
"Scott" <scott2rp789@netscape.net> wrote in message news:3DAD7A63.4751430E@netscape.net...
> Is any match more efficient than the others? Does any of these devices affect
> the pattern in any way? I have a well built gamma match with sliding tubes on my
> yagi was looking for advantages of switching to a T match or Hairpin match - no
> matter how small the advantage.
>
> Scott.
>
>
>
> Tarmo Tammaru wrote:
>
> > Scott,
> >
> > The gamma match is inherenty unbalanced, and does not require a balun, but
> > uses a series capacitor. In commercial antennas, the capacitor is made by
> > sliding a smaller tube inside a bigger one, with insulation in between.
> > Unless you are copying something, this can make for complicated
> > calculations. This is cheap to manufacture, most complicated if you just
> > build one antenna. You don't want to do what is in the ARRL antenna book,
> > which is to use an actual variable capacitor.
> >
> > The T match is balanced, and requires a 4:1 balun. The balun is a NOOP, just
> > 1/4 wavelength of 50 ohm coax. I have 2 antennas with this kind of match,

> > works fine.
> >
> > The hairpin match is balanced at 50 ohms, requires a 1:1 balun. Not sure
how
> > you would do this above 54 MHz.. The Hygain TH3MK4 tribander has this
match.
> >
> > Why not experiment. Since it is so simple, try the hairpin first, then
the
> > T. You don't have to put the antenna up in the air; for initial test,
point
> > the antenna straight up with the reflector a couple of feet off the
ground.
> > Based on measurements made on the TH3, the bandwidth gets a lot better
once
> > you get the antenna up in the air.
> >
> > Tam/WB2TT
> > "Scott" <scott2rp789@netscape.net> wrote in message
> > news:3DACE1AD.A20E0DA7@netscape.net...
> > > I've read through the ARRL Handbook (18th) pretty thoroughly. It
> > > discusses the gamma and hairpin match (and others), but it doesn't
> > > really say much about about the pros and cons of them. I know the
gamma
> > > match was widely used in the past. I see the T match and hairpin match
> > > being used on newer HF beams and some VHF antennas. What are the
> > > advantages of the T match and Hairpin match over the good old gamma
> > > match?
> > >
> > > Scott.
> > >
>

932. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 17:05:53 UTC
From: sburgoyne@faux9bit.qc.ca
Message-ID: <3dad9a27.18543273@news.9bit.qc.ca>
Source record: 132821

Thanks for all the info,

I thought it was a simple question, but the many answers tell another story.

OK, so there may not be enough difference electrically. Weight is a good point. Static too.

I forgot about the static buildup when a snow storm approaches. Just as when the snow starts blowing. I saw this many times a few years ago, when I had my radio in my room. In the middle of the night it would wake me up or my brother, by hearing the static arc on the disconnected coax connector, or in the tuner. It it was visually impressive too in the dark !

The COM port connected to the VHF packet station blew out 2 times from the static. The ribbon connector was pitted badly by arcing to the computer case !

Stephan, VE2OWL

---
to reply direct, remove "faux" from e-mail address

933. Re: why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 17:07:57 UTC
From: sburgoyne@faux9bit.qc.ca
Message-ID: <3dad9caf.19191075@news.9bit.qc.ca>
Source record: 132822

Thanks for all the info,

I thought it was a simple question, but the many answers tell another story.

OK, so there may not be enough difference electrically. Weight is a good point. Static too.

I forgot about the static buildup when a snow storm approaches. Just as when the snow starts blowing. I saw this many times a few years ago, when I had my radio in my room. In the middle of the night it would wake me up or my brother, by hearing the static arc on the disconnected coax connector, or in the tuner. It it was visually impressive too in the dark !

The COM port connected to the VHF packet station blew out 2 times from the static. The ribbon connector was pitted badly by arcing to the computer case !

Stephan, VE2OWL
---
to reply direct, remove "faux" from e-mail address

934. Re: stacked crossed dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 17:23:51 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210160923.1a1971fc@posting.google.com>
Source record: 132823

Claude Frantz <claude@pc0312a.rz.unibw-muenchen.de> wrote in message news:<3DAC0FD7.A4D0B8C@pc0312a.rz.unibw-muenchen.de>...
> How to feed stacked crossed dipoles ?
> What is the prefered vertical spacing ?
> Are NEC models available ?

Do you want circular or linear polarization?

935. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 17:57:04 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <0b9rquokm7ir7eegg4pnpnhucg7bjje1pk@4ax.com>
Source record: 132824

On Tue, 15 Oct 2002 23:58:48 -0500 (CDT), richardharrison@webtv.net
(Richard Harrison) wrote:

>Richard Clark, KB7QHC wrote:
>"This suggests that knowing V/M and trying to translate that into a
>known voltage applied to a receiver is useless."
>
>Don`t despair. As previously posted, Terman wrote:
>"---rate at which energy is abstracted (power) from the wave is (volts
>per meter x effective antenna height in meters) squared, divided by
>twice the radiation resistance---."
>
>That`s just E squared over R.

However, that is the employment of V/M not its measure. This still
says nothing as to its applicability as I express in your quote of me
above.

>
>The effective height is the vertical component of the height. If the
>entire antenna is exactly vertical, the effective height is the entire
>antenna length (up to a point, anyway).
>
>The volts per meter is the field intensity.

Yes, its specification. This does not suggest what is actually
measured by direct application tho'.

>
>The denominator is twice the radiation resistance because a conjugate
>match is assumed to extract maximum power from the wave. The load is the
>radiatiation resistance of the antenna plus the matched load resistance.
>

And we now get down to the observation that this is a power-based
phenomenon, not a linear one
>Power available to the receiver is the total of the 1-meter antenna
>segments voltages in series squared,
for which the rubric of 196mV/M might well mislead some to think that
they can add or stack linear elements like batteries.

73's
Richard Clark, KB7QHC

936. 19th Edition of ARRL Antenna Book

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 20:09:24 UTC
From: rckchp@comcast.net
Message-ID: <6dc33f40.0210161209.7ad1b193@posting.google.com>
Source record: 132825

I need a copy of the "5 Band Quad" article on pages 12-8 to 12-11 in the ARRL Antenna Book, 19th edition. I'd be happy to pay for postage/copying if anyone could send it....or perhaps scan it to pdf file/attachment and email it direct to :rckchp@comcast.net Thanks in advance.

Rich K2CPE

937. EH Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 21:45:15 UTC
From: Dick <boleyd@yahoo.com>
Message-ID: <L5lr9.29673$Lg2.7438281@news2.news.adelphia.net>
Source record: 132826

Has anyone had any experience with the EH antennas at this web site
http://www.qsl.net/w0kph/ ???

Thanks,
Dick N3HKN

938. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 22:01:28 UTC
From: k1bqt@aol.com
Message-ID: <20021016180128.11344.00002046@mb-cv.aol.com>
Source record: 132827

>...both French and English on the package.<

Heard a rumor that at least one Canadian ham store in the province of Quebec was virtually closed down by the language police over the bi-lingual labeling regulation. Anyone know if it is true?

Rick K1BQT

939. Question: Bonding unlike metals for antenna connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 23:10:26 UTC
From: Kanberi <pti@capnet.com>
Message-ID: <3DADF1E2.4A2663C4@capnet.com>
Source record: 132829

I have 14 gauge stranded copper that I want to attached to
a skinny rod (I think its copper... its one of those ready made
outfits for making dipoles with a SO-239 and two rods.
HQ-1 I think)

I don't want to solder it but just clamp it. Is it OK to clamp it
with one of those buss bars used for electrical work?
I think its made out of aluminum.
Will it be a dissimilar metal problem and corrode?

What kind of lacquer is good to coat this connection outdoors?

940. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 23:30:56 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aoksrgmtp0@208.207.71.173>
Source record: 132828

Dean Elwood wrote:
>
> Where on earth (well, in the UK anyway) do you get 1:1 baluns??
>
>

Use a longer piece of coax to feed the antenna, then at the antenna end wind 9 to 12 turns of it into a small "hank" about 10 inches in diameter,and hang that somewhere near the antenna feedpoint. That's your 1:1 "choke" balun. The number of turns would depend on the lowest frequency you will operate. I believe that 10 turns will handle the lower end of 80 meters OK.

Dick

941. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-16 23:49:47 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <vWmr9.8663$1P1.696391@bgtnsc05-news.ops.worldnet.att.net>
Source record: 132830

"Rick Littlefield" <k1bqt@aol.com> wrote in message
news:20021016180128.11344.00002046@mb-cv.aol.com...
> >...both French and English on the package.<
>
> Heard a rumor that at least one Canadian ham store in the province of
Quebec
> was virtually closed down by the language police over the bi-lingual
labeling
> regulation. Anyone know if it is true?
>
> Rick K1BQT

Hi Rick.

True. I think the government agency is called the Commission for the Preservation of the French Language (or Culture ?). I know personally that they write very nasty letters to those not complying with Quebec language laws.

French required on the package. French had to be more prominent than English (or at least not less prominent). All manuals and documentation had to be in French (English was okay if necessary). It was easier to comply by ceasing to sell product into Quebec.

After a customer complained to the authorities, the agency actually sent officers into the ham store to inform them that they could not sell ham products unless they complied with the French language laws.

Steve

942. FS: MFJ 1796 halfwave vert.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 00:03:32 UTC
From: n2rll@aol.com
Message-ID: <20021016200332.10596.00002327@mb-mp.aol.com>
Source record: 132831

I have a used MFJ-1796 halfwave vertical antenna; bottom u-shaped bracket holding some elements broken, but can be easily repaired. Antenna is assembled and works well, but I've recently changed to using a G5RV. If you're in the NJ area, please contact me at this email address.
Thank you,
Harold N2RLL

943. Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 00:42:44 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <nv1squ0o8qpb4j4qdcbk9d4mg23j0lkk5b@4ax.com>
Source record: 132832

>>Now... about that antenna optimization contest, Steve gave y'all the
>>objective function, now...
>>
>>Get to it!
>>
>>--Peter K1PO
> > Indialantic By-the-Sea, FL
>>

>I think I may have a couple of minor points for Steve for off-line, but I see
>no reason why a mid/late Oct time scale isn't do-able.(as I mentioned earlier).
>Should be fun and everyone will learn something.

>In the meantime, I appreciate the obvious drop off of un-related comments and hope we can all maintain a >cordial 'even strain' as they say.

>73,
>Chip N1IR

Fill us in!

944. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 00:48:51 UTC
From: k1bqt@aol.com
Message-ID: <20021016204851.08375.00001805@mb-fx.aol.com>
Source record: 132833

>After a customer complained to the authorities, the agency actually sent officers into the ham store to inform them that they could not sell ham products unless they complied with the French language laws.<

Mon Dieu!!

Rick K1BQT

945. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 01:43:53 UTC
From: richardharrison@webtv.net
Message-ID: <24822-3DAE15D9-123@storefull-2318.public.lawson.webtv.net>
Source record: 132835

Richard Clark, KB7QHC wrote:
"This does not suggest what is actually captured tho`."

Terman tells exactly how to calculate the energy captured and transferred to the receiver.

Terman writes: "---Abstracted from the passing wave". That means power induced into the wire, and available to the receiver after half the abstracted energy is reradiated. The antenna is reciprocal so that current on the wire, no matter where it comes from, causes radiation. The antenna can deliver maximum signal to a conjugately matched antenna load. That`s Terman`s condition for his formula. A matched load means a 50-50 split between power to te receiver and power reradiated. That`s the best deal available to the receiver. Half the available power is better than none.

Terman`s formula takes care of the reradiation. The power abstracted from the passing wave available to the receiver is: E squared over 2R.

E is indeed the volts per meter times the number of meters in the wire.

The 2 in the denominator is because half the intercepted energy must be reradiated.

We have charts that give the radiation resistance for grounded vertical antennas. We must present the antenna with the same value of resistance. The antenna is a generator with an internal resistance, It is the antenna`s radiation resistance. It drops half the voltage generated by the wave sweeping by. The other half of the voltage is dropped across the external load resistance (equal to the radiation resistance). The power lost in the internal (radiation) resistance is reradiated.

The power in the receiver load resistance is E squared over R. This is the same power available to the input device in the receiver, less any loss between the antenna and the input device. Actual voltage across any input device deends on transformation ratio. It is power which must be conserved. Volts times amps at the antenna feedpoint equal volts times amps at the receiver input device if the loss between these points is negligible.

The field strengths predicted and measured agree very closely in most instances. Many times a calculation of the microvolts to be expected at the receiver using the field strength to be expected and the antenna system characterestics is made.

The signal is received in the receiver and an output indication from the receiver which is proportionsl the received signal strength is noted. A

precision signal generator is then used to replace the received signal and its output is adjusted for the same indication from the receiver as the received signal gave. This received signal level is then directly read from the signal generator`s calibrated attenuator. It works every time, and the often quoted field strengths produced at certain distances are true.

Best regards, Richard Harroison, KB5WZI

946. Re: Gamma match verse Hairpin match verse T match

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 01:50:42 UTC
From: Fred Hambrecht <w4jle@charter.net>
Message-ID: <uqs5s18eg2rqcd@corp.supernews.com>
Source record: 132834

A simpler method I have used for years is to simply ground the shield at the antenna center, strip the shield and put the center conductor through a close fitting piece of tubing with a second piece over the first.

The center lead is not connected to anything, simply hangs out the end of the tubing. Now by adjusting the shorting bar and sliding the second piece of tubing back and forth you adjust for 1:1.

The capacitor is the center conductor, the insulation the dielectric and the tubing the second plate of the cap.

Works great, low cost and no fancy cap.

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:phucnepATMOl6zCgXTWc3w@News.GigaNews.Com...
> Scott,
>
> The gamma match is inherenty unbalanced, and does not require a balun, but
> uses a series capacitor. In commercial antennas, the capacitor is made by
> sliding a smaller tube inside a bigger one, with insulation in between.
> Unless you are copying something, this can make for complicated
> calculations. This is cheap to manufacture, most complicated if you just
> build one antenna. You don't want to do what is in the ARRL antenna book,
> which is to use an actual variable capacitor.
>
> The T match is balanced, and requires a 4:1 balun. The balun is a NOOP,
just
> 1/4 wavelength of 50 ohm coax. I have 2 antennas with this kind of match,
> works fine.
>
> The hairpin match is balanced at 50 ohms, requires a 1:1 balun. Not sure
how
> you would do this above 54 MHz.. The Hygain TH3MK4 tribander has this
match.
>
> Why not experiment. Since it is so simple, try the hairpin first, then the
> T. You don't have to put the antenna up in the air; for initial test,
point
> the antenna straight up with the reflector a couple of feet off the
ground.
> Based on measurements made on the TH3, the bandwidth gets a lot better
once
> you get the antenna up in the air.
>
> Tam/WB2TT

> "Scott" <scott2rp789@netscape.net> wrote in message
> news:3DACE1AD.A20E0DA7@netscape.net...
> > I've read through the ARRL Handbook (18th) pretty thoroughly. It
> > discusses the gamma and hairpin match (and others), but it doesn't
> > really say much about about the pros and cons of them. I know the gamma
> > match was widely used in the past. I see the T match and hairpin match
> > being used on newer HF beams and some VHF antennas. What are the
> > advantages of the T match and Hairpin match over the good old gamma
> > match?
> >
> > Scott.
> >
>
>

947. Re: Why use barbed wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 02:43:27 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <3DAE23E8.1070807@adelphia.net>
Source record: 132836

Hey, do all those little spurs act like capacitance hats? ;^)

- Mike KB3EIA -

948. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 03:31:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uqsbp2dv1i6j21@corp.supernews.com>
Source record: 132837

Richard Harrison wrote:
> Richard Clark, KB7QHC wrote:
> "This does not suggest what is actually captured tho`."
>
> Terman tells exactly how to calculate the energy captured and
> transferred to the receiver.
>
> Terman writes: "---Abstracted from the passing wave". That means power
> induced into the wire, and available to the receiver after half the
> abstracted energy is reradiated. The antenna is reciprocal so that
> current on the wire, no matter where it comes from, causes radiation.
> The antenna can deliver maximum signal to a conjugately matched antenna
> load. That`s Terman`s condition for his formula. A matched load means a
> 50-50 split between power to te receiver and power reradiated. That`s
> the best deal available to the receiver. Half the available power is
> better than none.
>
> Terman`s formula takes care of the reradiation. The power abstracted
> from the passing wave available to the receiver is: E squared over 2R.
>
> E is indeed the volts per meter times the number of meters in the wire.
> . . .

E is the volts per meter times the number of meters in the wire only if the wire is very short in terms of wavelength. For a quarter wavelength vertical, E is about 0.64 times the number of meters in the wire, and for longer lengths the calculation is more complex.

Of course, in the context of the original question, the wire will almost certainly be very short in terms of wavelength, so E will be as Richard said. Just be careful extrapolating this to other situations.

Roy Lewallen, W7EL

949. Re: Gamma match verse Hairpin match verse T match

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 04:24:15 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Jp2dneEz_7TXpjOgXTWcqA@News.GigaNews.Com>
Source record: 132838

Fred,

That's pretty neat. Even makes the capacitor dimensions easy to figure,
because it's the same PF per foot as the coax.

Tam/WB2TT

"Fred Hambrecht" <w4jle@charter.net> wrote in message
news:uqs5s18eg2rqcd@corp.supernews.com...
> A simpler method I have used for years is to simply ground the shield at
the
> antenna center, strip the shield and put the center conductor through a
> close fitting piece of tubing with a second piece over the first.
>
> The center lead is not connected to anything, simply hangs out the end of
> the tubing. Now by adjusting the shorting bar and sliding the second piece
> of tubing back and forth you adjust for 1:1.
>
> The capacitor is the center conductor, the insulation the dielectric and
the
> tubing the second plate of the cap.
>
> Works great, low cost and no fancy cap.
(snip)

950. Re: Fiberglass guy rod

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 04:35:17 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3dae4274_2@news1.prserv.net>
Source record: 132842

I watched the Navy change out hundreds of feet of 1/2" fiberglass rod on several CDAAs over the latter part of the last decade. It was used to guy the 100' tall low band backscreen poles on the antenna side. About 280' per pole, and either 40 or 80 poles depending on which version. Puerto Rico and Spain I saw myself, all the other FRD-10 sites probably also changed between my visits. Big dumpsters full of 1/2" rods cut up in short pieces. Replaced with Phillystran (sp?).

--
Crazy George
Remove NO and SPAM from return address
CAM <Cecil.A.Moore@ieee.org> wrote in message
news:3DABBA85.91CB3D31@ieee.org...
> Buddy wrote:
> > I am having trouble finding info on fiberglass guy rod.
>
> What size is the "fiberglass guy rod"? What is it used for?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

951. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 04:43:42 UTC
From: lc <larryc@northwest.com>
Message-ID: <3DAE3FFE.9DD55E01@northwest.com>
Source record: 132839

Ebonics, anyone?

========

Rick Littlefield wrote:

> >After a customer complained to the authorities, the agency actually sent
> officers into the ham store to inform them that they could not sell ham
> products unless they complied with the French language laws.<
>
> Mon Dieu!!
>
> Rick K1BQT

952. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 04:43:58 UTC
From: lc <larryc@northwest.com>
Message-ID: <3DAE400E.4A046A9C@northwest.com>
Source record: 132840

Ebonics, anyone? Or, maybe...jive.

========

Rick Littlefield wrote:

> >After a customer complained to the authorities, the agency actually sent
> officers into the ham store to inform them that they could not sell ham
> products unless they complied with the French language laws.<
>
> Mon Dieu!!
>
> Rick K1BQT

953. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 04:44:21 UTC
From: lc <larryc@northwest.com>
Message-ID: <3DAE4025.238B9F91@northwest.com>
Source record: 132841

Ebonics, anyone? Or, maybe...jive.

========

Rick Littlefield wrote:

> >After a customer complained to the authorities, the agency actually sent
> officers into the ham store to inform them that they could not sell ham
> products unless they complied with the French language laws.<
>
> Mon Dieu!!
>
> Rick K1BQT

954. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 04:56:23 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ncbsquc9ovien2cpv4n98mu97njunhfhb1@4ax.com>
Source record: 132843

On Wed, 16 Oct 2002 20:43:53 -0500 (CDT), richardharrison@webtv.net
(Richard Harrison) wrote:

>
>We have charts that give the radiation resistance for grounded vertical
>antennas. We must present the antenna with the same value of resistance.
>The antenna is a generator with an internal resistance, It is the
>antenna`s radiation resistance. It drops half the voltage generated by
>the wave sweeping by. The other half of the voltage is dropped across
>the external load resistance (equal to the radiation resistance). The
>power lost in the internal (radiation) resistance is reradiated.
>
From those charts (or one like it at your neighborhood library) the
radiation resistance of a 1M vertical dipole at 1MHz is 0.0084 Ohms

>The power in the receiver load resistance is E squared over R. This is
>the same power available to the input device in the receiver, less any
>loss between the antenna and the input device. Actual voltage across any
>input device deends on transformation ratio. It is power which must be
>conserved.
(1 * M *196mV/M)ï¿½/0.0084 Ohm
4.57W
in regard to the model of the identical situation into a real load:
12 nanoWatt
If I replace that useful 600 Ohm load with the Ra, the model reports:
6.848 picoWatt
I wondered if the model was suffering from Iï¿½R copper loss,
so I set the model to zero loss:
8.179 picoWatt

What sort of transformer where you thinking of?

As a simple assessment of this vast range of power expressed through
math and model, I tuned up a local AM station near this frequency.
Using my longwire, the signal sat rock solid at 40 over S9. I then
switched to a 1M vertical dipole to observe an unsteady S4 signal. By
my calibrations, that is a 62dB variation. That is a relative
measurement. The absolute measurement is found relative to a known
level, S9. At 40 above, that represents a power of -32dBm.

What would my receiver SMeter reading present me at that magic one
mile? The number above sitting at 4.57W at high tide says I have some
60dB or more to go with my longwire, or 120dB with the short dipole.

That's a lot of halving of distances to a nearby radiator, and it
should at some point snuggle right up to it. Let me elaborate this to

suggest I was seriously off as to this being a local station at 40 over. Let's put it out 100 miles. I move in 50 miles and cut my losses by 6dB; I move in 25 miles and cut my losses by 6dB; I move in 12.5 miles and cut my losses 6dB; I move in 6.25 miles and cut my losses by 6dB; I move in 3+ miles and cut my losses by 6dB; I move in 1.5 miles and cut my losses by 6dB. Now, if my initial guess at the local station is actually true to within 100 miles, that range of variation only presents 36dB of signal boost available before my longwire is welded to the transmission tower. This says nothing of the short dipole and is a far cry from
(1 * M *196mV/M)ï¿½/0.0084 Ohm
4.57W

V/M remains an obtuse and impractical technical unit and seems suitable only for physicists or fcc lawyers.

73's
Richard Clark, KB7QHC

955. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 05:21:43 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3DAE48E7.CACA5B8B@oda.com.au>
Source record: 132844

Owen Duffy wrote:
>
> StarGazer wrote:
> >
> > How far off resonance do you have to be before using coax
> > will significantly affect the antenna system performance.
> > I'm still using a tuner to get a 1:1 SWR.
>
> Operating a feedline at VSWR greater than 1 increases the feedline
> losses. The higher the matched line loss and the higher the VSWR, the
> greater the loss. Higher VSWR may be more tolerable on a lower loss
> cable, or higher cable loss may be more tolerable with low VSWR.

A picture is worth a thousand words:
http://www.owenduffy.com.au/~owen/1.gif .

956. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 05:40:36 UTC
From: Fred Marshall <fmarshall@acm.org>
Message-ID: <aoligh$179m$1@feed.centurytel.net>
Source record: 132845

"W.G Ewald" <wgewald@att.net> wrote in message
news:nv1squ0o8qpb4j4qdcbk9d4mg23j0lkk5b@4ax.com...
>
>
> >>Now... about that antenna optimization contest, Steve gave y'all the
> >>objective function, now...
> >>
> >>Get to it!
> >>
> >>--Peter K1PO
> > > Indialantic By-the-Sea, FL

Where?

Fred AC7VR

957. Re: Home brew atu

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 06:06:45 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0210162206.43fafa22@posting.google.com>
Source record: 132846

Hi Fox,
download and run SELECT_1.EXE from
http://www.btinternet.com/~g4fgq.regp/page3.html#S301"
It is probably the simplest solution for matching a receiver to a
longwire antenna and improving its selectivity - a coil with two taps
(the program designs it) and a variable capacitor.

BR from Ivan OK1SIP

958. Re: How high to mount R7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 10:26:35 UTC
From: John Seney <wd1v@amsat.org>
Message-ID: <wd1v-13F155.06263717102002@netnews.attbi.com>
Source record: 132847

> "bob c tripi" <rtripi@world.std.com> wrote in message
> news:H3tqA5.8pE@world.std.com...
> > I have a cushcraft R7 that I want to use, but I'm not sure if it should
> > be
> a few feet above the ground or about 20 feet up (so it is above the
> roof). I
> am looking for where people have mounted theirs and how they found
> they
> worked.
> >
> > 73s
> > Bob N1KFV

Extensive testing a few years back with "R5" CC verticals showed NO
DIFFERENCE between ground mounts, roof mounts, and tower mounts to
in excess of 100 ft. relative to signal strengths.

Relative to safety, keeping the radials and hardware away from
eyes (not tall enough or too tall pole ground mount) is something
to consider. Other than that, keep the coax short but your
body out of the strong EM fields.

JS
Scope FAQ at http://www.qsl.net/wd1v

959. Re: stacked crossed dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 11:01:48 UTC
From: Claude Frantz <claude@pc0312a.rz.unibw-muenchen.de>
Message-ID: <3DAE989C.57D3BEB9@pc0312a.rz.unibw-muenchen.de>
Source record: 132848

JLB wrote:
>
> Claude Frantz <claude@pc0312a.rz.unibw-muenchen.de> wrote in message
news:<3DAC0FD7.A4D0B8C@pc0312a.rz.unibw-muenchen.de>...
> > How to feed stacked crossed dipoles ?
> > What is the prefered vertical spacing ?
> > Are NEC models available ?
>
> Do you want circular or linear polarization?

Linear.

960. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 11:08:05 UTC
From: Dean Elwood <dean@legallyspeaking.co.uk>
Message-ID: <aom5mljhn1@venus.btinternet.com>
Source record: 132849

Many thanks Dick.

So is that all a balun is when it's not operating as a matching transformer?
A choke.

It presumably just stops RF going back down the outer sheilding of the coax?

Would be useful if there were a device which actually measured any RF doing
that, so you could check the efficiency of the balun and adjust it
accordingly wouldn't it?

Dean

"Dick Carroll" <dixie@townsqr.com> wrote in message
news:aoksrgmtp0@208.207.71.173...
>
>
> Dean Elwood wrote:
> >
> > Where on earth (well, in the UK anyway) do you get 1:1 baluns??
> >
> >
>
> Use a longer piece of coax to feed the antenna, then at the antenna end
> wind 9 to 12 turns of it into a small "hank" about 10 inches in
> diameter,and hang that somewhere near the antenna feedpoint. That's your
> 1:1 "choke" balun. The number of turns would depend on the lowest
> frequency you will operate. I believe that 10 turns will handle the
> lower end of 80 meters OK.
>
> Dick

961. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 12:53:41 UTC
From: sburgoyne@faux9bit.qc.ca
Message-ID: <3daeb289.90331505@news.9bit.qc.ca>
Source record: 132850

Rumors, rumors, rumors, ...

There are not many ham stores in Quebec. If they close, that's because of a lack of business. I am not aware of any that closed down.

The labeling of products in both official languages is actually a CANADIAN law. So the law is valid for the whole territory... in theory of course.

For affixing a sign OUTSIDE of your business, yes true, it must be in french. Its a requirement and it is policed quite a bit. For all the rest, its business as usual ...

Stephan, VE2OWL
---
to reply direct, remove "faux" from e-mail address

962. Re: 19th Edition of ARRL Antenna Book

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 14:08:14 UTC
From: rckchp@comcast.net
Message-ID: <6dc33f40.0210170608.5720fefb@posting.google.com>
Source record: 132851

rckchp@comcast.net (rich a.) wrote in message
news:<6dc33f40.0210161209.7ad1b193@posting.google.com>...
> I need a copy of the "5 Band Quad" article on pages 12-8 to 12-11 in
> the ARRL Antenna Book, 19th edition. I'd be happy to pay for
> postage/copying if anyone could send it....or perhaps scan it to pdf
> file/attachment and email it direct to :rckchp@comcast.net Thanks in
> advance.
>
> Rich K2CPE

In reference to above request, I now have the desired info.......Thanks to GI4UIV

Rich K2CPE

963. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 14:28:00 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DAEC8F0.B2156D6B@ieee.org>
Source record: 132852

Dean Elwood wrote:
> So is that all a balun is when it's not operating as a matching transformer?
> A choke.
>
> It presumably just stops RF going back down the outer sheilding of the coax?
>
> Would be useful if there were a device which actually measured any RF doing
> that, so you could check the efficiency of the balun and adjust it
> accordingly wouldn't it?

Put a number of turns of wire on a ferrite toroid slipped over the
coax. Rectify the resulting voltage and measure it with a DC voltmeter.
Relative common mode current measurements are very easy.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

964. October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 14:33:39 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210170633.4d5a2c4@posting.google.com>
Source record: 132853

Great article coming in the Q.S.T. next month.
Larry a guy from W8 land is writing about computor
interfacing of antennas, and he is SHARING information
as to where to get the parts without personal gain
Thus we will have an article that helps all rather than
pages of circuits most could not build.
At last we have somebody who has come along and
shared his expertise in an area that most members
of the antenna groups have a thirsting for.
(Sharing just like the hams on this group)

At last I have a good reason to purchase a Q.S.T.
Hope hams will give a thumbs up to Larry and Q.S.T.
As a priper go to the stepper company page and
then go to the Links. I have read the link several
times and now can't wait for Q.S.T.
My e mail address is now aunwin@K insightbb. com
Remove capital k and spaces. I don't know how to
change the e mail change for these postings.
Instructions by E mail would be appreciated
Thanks

965. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 14:34:00 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aomhon$71q$1@venus.btinternet.com>
Source record: 132854

A transmission line of any sort behaves as a SINGLE antenna wire in respect of any unbalanced current which flows along it. Therefore, in general, it has standing waves on it - and so like any other single wire - it radiates. By reciprocity it also receives.

A choke does not necessarily stop radiation from (or reception by) the feedline. In some circumstances it may enhance it. It merely ensures the current standing wave is a minimum at the position the choke is located. The current maximum of the standing wave is shifted along the line to another location 1/4-wavelength from the choke.

Depending on whether the new locations of max and min are more or less favourable the line will more or less continue to radiate. But radiate (or receive) it certainly will !

Whether the choke serves the intended purpose depends on how the unbalanced current is induced, coupled or injected into the line from the main antenna and on the length of the line in wavelengths. Specially with multiband antennas it also depends very much on frequency.

To check the effectiveness of a choke it is necessary to measure unbalance current over a length of line at least 1/4-wavelength long at all frequencies it is intended to operate on.

To check at one place immediately adjacent to the choke will be to delude oneself, because there, a current minimum is guaranteed.

Reg, G4FGQ

966. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 15:43:14 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <LdquPS2VrwETEBQ+JtVmvkCfuFrb@4ax.com>
Source record: 132855

aunwin@fgi.net (Art Unwin KB9MZ) wrote:

>Great article coming in the Q.S.T. next month.
>Larry a guy from W8 land is writing about computor
>interfacing of antennas, and he is SHARING information
>as to where to get the parts without personal gain
>Thus we will have an article that helps all rather than
>pages of circuits most could not build.
>At last we have somebody who has come along and
>shared his expertise in an area that most members
>of the antenna groups have a thirsting for.
>(Sharing just like the hams on this group)
>
>At last I have a good reason to purchase a Q.S.T.
>Hope hams will give a thumbs up to Larry and Q.S.T.

???...The article does not appear to be in either the Oct. or Nov. issues of QST

Bob
k5qwg

>As a priper go to the stepper company page and
>then go to the Links. I have read the link several
> times and now can't wait for Q.S.T.
>My e mail address is now aunwin@K insightbb. com
>Remove capital k and spaces. I don't know how to
>change the e mail change for these postings.
>Instructions by E mail would be appreciated
>Thanks

967. Re: Why use barbed wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 15:53:56 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DAEDD14.A38AC521@cwis.net>
Source record: 132856

Mike,
Naaw, man. They increase the affective diameter
of the wire, make it more broadbanded, you know...
'Doc

968. Re: Off resonance antenna and using coax???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 15:54:53 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aommgd$ni3$0@208.206.142.84>
Source record: 132857

Owen Duffy wrote:
>
> Owen Duffy wrote:
> >
> > StarGazer wrote:
> > >
> > > How far off resonance do you have to be before using coax
> > > will significantly affect the antenna system performance.
> > > I'm still using a tuner to get a 1:1 SWR.
> >
> > Operating a feedline at VSWR greater than 1 increases the feedline
> > losses. The higher the matched line loss and the higher the VSWR, the
> > greater the loss. Higher VSWR may be more tolerable on a lower loss
> > cable, or higher cable loss may be more tolerable with low VSWR.
>
> A picture is worth a thousand words:
> http://www.owenduffy.com.au/~owen/1.gif .

Sure does, thanks for confirming my point. Which is, in ham radio, as opposed to commercial installations which typically remain on a single frequency,(or switch to another resonant antenna when changing frequencies),we routinely employ wide frequency excursions within a single band. We need to understand that some loss is just another acceptable part of the landscape. Whether or not one matches at the line input or at the antenna feedpoint, the antenna will NOT hold 1:1 across the entire band.

So what do you want to do, accept the mandatory loss you WILL have, or go to elaborate lengths to eliminate the mismatch loss in coax, which is almost always low at HF due to the use of relatively short lengths of cable of low loss at al most all hams use?

Even if the loss amounts to something significant, such as 6 dB, it can be perfectly acceptable under the instant circumstances. In fact, I'd wager that many hams routinely incur losses on that order without realizing it. I know I once did-

When it was new on the market, before it was widely realized that 9913 was so vulnerable to water contamination, I installed a 150 foot run of low loss 9913 cable for use at HF. Of course, over a period of several years, it became contaminated with moisture inside due to the ingress of humidity such that it eventually became unusable. Realizing what had happened I decided to check it to see what loss was actually involved when it got to the point that it wasn't producing contacts anymore.

Inputting 100 watts at the transmitter, I placed a Waters terminated wattmeter at the line output. Even on the 10 watt scale, I could detect NO rf energy arriving at the antenna. The meter didn't flicker perceptably at all. But tests on 75 meters with stations 50 and 100 miles away revealed that those stations could hear me on SSB, although they couldn't copy what I was saying due to the extremely weak signal. Close to 100% loss, whatever dB level you want to assign to that. The radiated power surely was in the the low tenths of a milliwatt, though I had no covenient way to measure it.

The point is, even with severe mismatched (and matched) loss, that coax was useable -and was used- far beyond any level of what we would consider to be acceptable loss.

I stand by my earlier comment that the knowledge and (eventually) experience to understand what is happening and to sort all this out is what hams need, not a perfect match at all times, which they'll never have except at resonance anyway. Knowledge to understand the causes of loss and to determine if and when a given amount of loss can be useful and acceptable.

If I can assist in some newer hams gaining the insight leading to a experience at an earlier stage than I was able to gain, I think it's a worthwhile effort.

Dick W0EX

969. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 15:55:43 UTC
From: richardharrison@webtv.net
Message-ID: <11859-3DAEDD7F-283@storefull-2316.public.lawson.webtv.net>
Source record: 132861

Richard Clark, KB7QHC wrote:
"From those charts (or one like it at your neighborhood library) the radiation resistance of a 1-meter vertical dipole at 1 MHz is 0.0084 Ohms."

I don`t have a handy chart so I`ll obviate the need of a chart.

Suppose we are at 1 mile from a 1 KW station broadcasting on 1 MHz.

The voltage induced in my 2 meter long vertical antenna is 0.392 volts.

In a 1-meter vertical, the volts are 0.196 volts. The power in a square meter of the wave is: (0.196 V) squared divided by 377 ohms, or 0.102 milliwatts.

With a 2 meter long antenna, say I can grab the wave power in 2 square meters of the wave. Half of this power has to be returned, so that leaves 0.102 milliwatts that may be applied to the load.

In a lossless transformation (an impossible dream) the voltage across any receiver input resistance is simply the square root of PR. Say the receiver input is 50 ohms. Volts across 50 ohms are: 0.071.

At 1 mile from the 1 KW transmitter, that seems a reasonable ideal. Loss will pare away some of the voltage, so less than 70 millivolts would be expected. At greater distances, the voltage to te receiver is inversely proportional to the distance. At 10 miles, only 7 millivolts would be expected across that 50-ohm input if 70 millivolts were the signal at 1 mile.

Best regards, Richard Harrison, KB5WZI

970. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 16:01:17 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DAEDECD.B149F254@cwis.net>
Source record: 132858

Art,
You wrote, "...is writing about computor interfacing
of antennas,". Sounds more like it should be in the
'April' edition of QST...
'Doc

971. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 16:03:34 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DAEDF56.415A501A@cwis.net>
Source record: 132859

Yeah, we're all waiting with bated breath. Or is
that 'baited' breath?
'Doc

972. Re: G5RV, single or double length ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 16:06:14 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DAEDFC2.AA0250F7@uwe.ac.uk>
Source record: 132860

CAM wrote:
>
> Thierry wrote:
> > There is however one last question : must I buy a full length G5RV
> > (102', 31m) or a double size (204' 67m) if I'm first interested in
> > DXing in bands from 20m to 10m (mainly in the summer time but of
> > course in the lower ones too, 80-40m to 10m, in the winter).
>
> I just modeled a double-size G5RV using EZNEC. It is a 204 ft dipole
> fed with 58 ft of 300 ohm twinlead (VF=0.9). As I suspected, the
> antenna does a good job on 160m, 80m, & 40m. The SWR's on the 50
> ohm coax are 4:1 on 1.95 MHz, 4:1 on 4.0 MHz, and 2.4:1 on 7.19 MHz.

A 4:1 SWR on coax is good? Must be some new kind of good you're talking about there. 1.4:1 is O.K. but 4:1 is no way 'good'. Throw away the coax and feed it with ladder and you'll have a good antenna. I really can't see any reason to recommend a G5RV to a beginner.(or anyone else). Your transmission line tuner is fine, however.

vy 73

Andy, M3ABC

973. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 16:33:50 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aomopetef0@208.206.142.77>
Source record: 132862

Dean Elwood wrote:
>
> Many thanks Dick.
>
> So is that all a balun is when it's not operating as a matching transformer?
> A choke.
>
> It presumably just stops RF going back down the outer sheilding of the coax?
>

That's one version, but of course it doesn't transform impedances.
Sometimes a 1:1 transformer might be desirable instead of just a
decoupling the outer shield. But that decoupling does provide balance
deending on its efficiency.
It can be as simple as an RF choke on the outer sheid, but under some
conditions it doesn't keep RF off the shield. See Reg's post:

Thread:
Re: Still on antenna size constraints.....
Date: Thu, 17 Oct 2002 14:34:00 +0000 (UTC)
From: "Reg Edwards" <g4fgq.regp@btinternet.com>

for an excellent explanation.

> Would be useful if there were a device which actually measured any RF doing
> that, so you could check the efficiency of the balun and adjust it
> accordingly wouldn't it?

Reg and Cecil have addressed this subject in the above thread.

>
> Dean
>
> "Dick Carroll" <dixie@townsqr.com> wrote in message
> news:aoksrgmtp0@208.207.71.173...
> >
> >
> > Dean Elwood wrote:
> > >
> > > Where on earth (well, in the UK anyway) do you get 1:1 baluns??
> > >
> > >
> >
> > Use a longer piece of coax to feed the antenna, then at the antenna end
> > wind 9 to 12 turns of it into a small "hank" about 10 inches in
> > diameter,and hang that somewhere near the antenna feedpoint. That's your

> > 1:1 "choke" balun. The number of turns would depend on the lowest
> > frequency you will operate. I believe that 10 turns will handle the
> > lower end of 80 meters OK.
> >
> > Dick

974. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 17:01:07 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3daeecd9$0$4247$ba620e4c@news.skynet.be>
Source record: 132863

BTW are you Stephan or St&#65533;phane or Etienne :-))))

73 de Jacques - ON5MJ

975. Re: Why use barbed wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 17:04:48 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3daeedb4$0$4253$ba620e4c@news.skynet.be>
Source record: 132864

And you can tell to your neighbour (reluctant to hams) that it's not an antenna but rather a fence for flying elephants. :-)))

976. Re: stacked crossed dipoles

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 17:07:52 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210170907.33407d47@posting.google.com>
Source record: 132865

Claude Frantz <claude@pc0312a.rz.unibw-muenchen.de> wrote in message news:<3DAE989C.57D3BEB9@pc0312a.rz.unibw-muenchen.de>...
> JLB wrote:
> >
> > Claude Frantz <claude@pc0312a.rz.unibw-muenchen.de> wrote in message news:<3DAC0FD7.A4D0B8C@pc0312a.rz.unibw-muenchen.de>...
> > > How to feed stacked crossed dipoles ?
> > > What is the prefered vertical spacing ?
> > > Are NEC models available ?
> >
> > Do you want circular or linear polarization?
>
> Linear.

Not sure about the spacing, but for linear polarization they should all be fed in phase. NEC would help optimize the spacing, I think.

One method for feeding them is to cut some 72 ohm coax to be an odd quarter wavelength (1/4, 3/4, 5/4, etc.) long. Connect one to each dipole (with a balun of some type). Connect the other ends of the 72 ohm coax together in pairs, which gives a 50 ohm feed point. Then connect these 50 ohm points in pairs with more 72 ohm coax. This should all be in the various antenna books, usually under 'collinear dipoles', but should also work with crossed dipoles.

Jim
N8EE

977. Re: G5RV, single or double length ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 17:13:13 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DAEEFA9.5B9BC914@ieee.org>
Source record: 132867

Andy Cowley wrote:
>
> CAM wrote:
> > As I suspected, the
> > antenna does a good job on 160m, 80m, & 40m. The SWR's on the 50
> > ohm coax are 4:1 on 1.95 MHz, 4:1 on 4.0 MHz, and 2.4:1 on 7.19 MHz.
>
> A 4:1 SWR on coax is good? Must be some new kind of good you're talking
> about there. 1.4:1 is O.K. but 4:1 is no way 'good'.

Well, would you believe "not bad"? :-) The loss in 100 ft. of RG213 with an SWR of 4:1 would be about 0.01 dB higher than the matched line loss according to the chart in _The_ARRL_Handbook_. On 160m, the loss increases from about 0.22 dB to about 0.23 dB and on 75m, the loss increases from about 0.32 dB to about 0.33 dB. Exactly how does one measure that extra 0.01 dB of loss caused by an SWR of 4:1?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

978. Re: G5RV, single or double length ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 17:14:37 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3daeefff$0$4263$ba620e4c@news.skynet.be>
Source record: 132866

In HF, with an antenna tuner, in both case (coax or ladder) you will not see a big difference.

Jacques de ON5MJ

979. Home Made ATU

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 18:14:34 UTC
From: silverfox8442@aol.com
Message-ID: <20021017141434.05821.00002551@mb-mm.aol.com>
Source record: 132868

Many thanks lads for you help with the ATU

Fox

980. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 18:16:02 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <11rtquglsd1kgmd97ko8d900567m08cbe4@4ax.com>
Source record: 132869

On Thu, 17 Oct 2002 10:55:43 -0500 (CDT), richardharrison@webtv.net
(Richard Harrison) wrote:

>Richard Clark, KB7QHC wrote:
>"From those charts (or one like it at your neighborhood library) the
>radiation resistance of a 1-meter vertical dipole at 1 MHz is 0.0084
>Ohms."
>
>I don`t have a handy chart so I`ll obviate the need of a chart.
>
>Suppose we are at 1 mile from a 1 KW station broadcasting on 1 MHz.
>
>The voltage induced in my 2 meter long vertical antenna is 0.392 volts.

What's up with changing to a 2 meter element? Let's not play
monkeyshines now, simply stick with the original 1 meter
specification:
P = Eï¿½/R
P = .196ï¿½/0.0084
P = 4.5W

Now let us consider the implications of this with a simple math
exercise involving nothing more than addition (OK repeated addition,
simple multiplication). We face the delirious prospects of this
bounty of four and one half watts to a load placed in the middle of
one meter of wire located one mile from the transmitter.

I place a similar one meter loaded wire at every degree surrounding
the tower.
P = 360 * (1M * 196mV/M)ï¿½ / 0.0084 Ohm
P = 1627W

What we have now is a truly remarkable sort of electronic fence that
completely absorbs every watt of output (by 163%) from the emitter.
This fence stands only 0.0033 wavelength tall and its pickets are
evenly spaced 92 feet apart (smaller than the Maginot or Siegfried
lines but vastly more powerful!).

I suppose this is why AM stations are located in the swamps. If they
had any form of listening audience within a mile, they would have no
audience beyond that same mile. Actually, they wouldn't have many
listeners within that same mile either given the 163% absorption. So
it seems the AM industry needs a new technical unit that more
accurately reflects the mission of AM (getting out to the listener).
I would nominate the term "snipe" (as in snipe hunt).
snipe = 0.6135 * 360 / 1KW / mile

snipe : listeners per KW at no more than 1 mile range
for this exercise we find the snipe value at 221 listeners/KW/mile
total (221 listeners exhaust the entire KW radiated). I hope their ad
revenues justify their existence.

Richard, this fence works far better than those faraday cages.
Actually, this sounds like Tesla's work on radiating power to
subscribers. After-all, with several many light bulbs with 1 meter
power leads, this seems sufficient to light the average home quite
well. We should all be so lucky to live near an AM station.

Dare I say this is cheaper than nuclear power (and that's free!)?

This makes me wonder, what would happen if I simply chopped my fence
down by 90%?
P = 360 * (0.1M * 196mV/M)ï¿½ / 0.0000877 Ohm
P = 1577W
Well, things don't look too good, I lost 3% of my absorption - but
still quite remarkable as a fence 0.00033 wavelength tall with pickets
92 feet apart.

Gee, with a world of 10cM leads so easily available, its a miracle AM
out beyond 10 feet works at all. As for free radiation powered light
bulbs, this shortening of leads is a dramatic breakthrough in
efficiency. I look forward to the day when they shorten the lightbulb
power leads to 1cM so I don't have those dangling wires everyone is
tempted to jerk to turn off the light (it killed the last guy when he
tried it).

Obviously, the technical usage of V/M is as useful as transmission
line capacity is useful to an ENRON power broker: you can apply it to
any balance sheet certified by Anderson Consulting. Then, of course,
there are the modelers such as EZNEC that give much more realistic
values.

73's
Richard Clark, KB7QHC

981. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 18:19:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uqtvpkqlgh4dd2@corp.supernews.com>
Source record: 132870

Whether a current balun (common mode choke) shifts the current distribution on a line or reduces it along the whole line depends on the length of the feedline, what its ends are connected to, and the position of the balun. In cases where the current distribution is simply shifted along the line as Reg describes, a second balun placed about a quarter wavelength from the first will reduce the current along the whole line. The reason this works is that there's no standing wave pattern that can exist when there are two high impedances with this spacing. Of course this is most effective only on one band, and might not be effective on another band if the balun spacing is close to an integral number of half wavelengths on that band. Fortunately, multiple baluns don't seem to be necessary very often in practice.

Roy Lewallen, W7EL

Reg Edwards wrote:
> A transmission line of any sort behaves as a SINGLE antenna wire in respect
> of any unbalanced current which flows along it. Therefore, in general, it
> has standing waves on it - and so like any other single wire - it
> radiates. By reciprocity it also receives.
>
> A choke does not necessarily stop radiation from (or reception by) the
> feedline. In some circumstances it may enhance it. It merely ensures the
> current standing wave is a minimum at the position the choke is located. The
> current maximum of the standing wave is shifted along the line to another
> location 1/4-wavelength from the choke.
>
> Depending on whether the new locations of max and min are more or less
> favourable the line will more or less continue to radiate. But radiate (or
> receive) it certainly will !
>
> Whether the choke serves the intended purpose depends on how the unbalanced
> current is induced, coupled or injected into the line from the main antenna
> and on the length of the line in wavelengths. Specially with multiband
> antennas it also depends very much on frequency.
>
> To check the effectiveness of a choke it is necessary to measure unbalance
> current over a length of line at least 1/4-wavelength long at all
> frequencies it is intended to operate on.
>
> To check at one place immediately adjacent to the choke will be to delude
> oneself, because there, a current minimum is guaranteed.
> ---
> Reg, G4FGQ
>

>
>
>

982. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 18:32:19 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uqu0hk6217el6e@corp.supernews.com>
Source record: 132871

CAM wrote:
> Dean Elwood wrote:
>
>>So is that all a balun is when it's not operating as a matching transformer?
>>A choke.
>>
>>It presumably just stops RF going back down the outer sheilding of the coax?
>>
>>Would be useful if there were a device which actually measured any RF doing
>>that, so you could check the efficiency of the balun and adjust it
>>accordingly wouldn't it?
>
>
> Put a number of turns of wire on a ferrite toroid slipped over the
> coax. Rectify the resulting voltage and measure it with a DC voltmeter.
> Relative common mode current measurements are very easy.

If you do this, be sure that you put a fairly low resistance (say, 50 or 100 ohms) across the winding. Otherwise, the toroid you're using for measurement will insert a significant impedance itself, changing the common mode current when you insert it. When terminated, the insertion resistance will be R/(N^2) where R is the terminating resistance and N the number of turns, assuming you use a 70 series or type 43 core.

Actually, quantitative common mode current measurements are just as easy as relative ones. The current on the feedline = VN/R, where N is the number of turns on the core, R is the resistance connected across the winding, and V is the voltage across R. If you use 50 ohms for R, you can connect R and the detector at the end of a piece of coax, and put the core some distance from the detector. N = 10 and R = 50 is a good combination. This technique, with a dual trace scope for a detector, also works well to measure the currents in phased arrays.

Roy Lewallen, W7EL

983. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 18:33:42 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <eb0uquojbvm19iiqk92b4vnrs40uilhieg@4ax.com>
Source record: 132872

On Thu, 17 Oct 2002 11:03:34 -0500, 'Doc <w5lz@cwis.net> wrote:

>
>
> Yeah, we're all waiting with bated breath. Or is
>that 'baited' breath?
> 'Doc

Hi Doc,

Bated: stilled, stopped (you weren't really holding your breath were you?).

Baited: suckered, cheated, lied to (I repeat, you weren't really holding your breath were you?).

Still and all, either definition applies to this anniversary of the abysmal trouncing that fractals received. Halloween is also an appropriate time to dig up those corpses and dress them up for sale (or is it sail?) or peer review at the next comic book convention.

73's
Richard Clark, KB7QHC

984. Re: How to build vertical am antenna for home?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 19:10:43 UTC
From: richardharrison@webtv.net
Message-ID: <22512-3DAF0B33-95@storefull-2315.public.lawson.webtv.net>
Source record: 132873

Richard Clark, KB7QHC wrote:
"What`s up with changing to a 2 meter element? Let`s not play
monkeyshines now---."

No nefarious motive. I don`t have a confirmation of the radiation
resistance at hand, but I do know the resistance of free-space, it`s 377
ohms. I used a 2-meter length of wire because 1/2 the power abstracted
must be given back. Thought that fewer numbers on the page would
simplify the explanation.

My original response was:
"15 to 20 feet is usually plenty of antenna."

I never dreamed that simple and accurate statement would need such a
tedious defense.

Best regards, Richard Harrison, KB5WZI

985. wire for antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 20:08:18 UTC
From: lc <larryc@northwest.com>
Message-ID: <3DAF18B2.8DD762E7@northwest.com>
Source record: 132874

home depot sells 500' spool of 14 ga solid for $14.

wide range of insulation colors.

986. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 20:08:46 UTC
From: lc <larryc@northwest.com>
Message-ID: <3DAF18CE.D6C0D89E@northwest.com>
Source record: 132875

Ebonics, anyone? Or, maybe...jive.

========

Rick Littlefield wrote:

> >After a customer complained to the authorities, the agency actually sent
> officers into the ham store to inform them that they could not sell ham
> products unless they complied with the French language laws.<
>
> Mon Dieu!!
>
> Rick K1BQT

987. Re: Why use barbed wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 20:41:35 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <aon79l$l3i@r02n01.cac.psu.edu>
Source record: 132876

The real problem, is it not copper plated, very high losses but then if it's low enough then cows will not rub on your antenna.

"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message news:3daeedb4$0$4253$ba620e4c@news.skynet.be...
> And you can tell to your neighbour (reluctant to hams) that it's not an
> antenna but rather a fence for flying elephants. :-)))
>
>

988. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 22:21:00 UTC
From: SeeSignature@below.com
Message-ID: <3daf3350.107157114@news.ga.comcast.giganews.com>
Source record: 132877

True story, not a "rumor":

On a vacation trip, we had planned to visit Montreal and spend some time (and money) there. As I drove up from New York state, I found that the highway signs were in french only and did not include english translations.

I didn't have a clue as to what those signs meant. No high-school french here! Yet, I was responsible for knowing the rules of the road as spelled out by those signs. Made me nervous, to say the least.

I could see Montreal in the distance as I turned and headed back to the USA. Never been back to Quebec.

OTOH, I have since been in ALL other provinces of Canada and have spent months of vacation time and thousands of $ there. The other provinces often provide the vital info in both english and french. Not, apparently, Quebec. I won't visit Quebec again. Maybe that is what they want?

Jerry W4UK

On Thu, 17 Oct 2002 12:53:41 GMT, sburgoyne@faux9bit.qc.ca (Stephan) wrote:

>Rumors, rumors, rumors, ...
>
>There are not many ham stores in Quebec. If they close, that's
>because of a lack of business. I am not aware of any that closed
>down.
>
>The labeling of products in both official languages is actually a
>CANADIAN law. So the law is valid for the whole territory... in
>theory of course.
>
>For affixing a sign OUTSIDE of your business, yes true, it must be in
>french. Its a requirement and it is policed quite a bit. For all the
>rest, its business as usual ...
>
>Stephan, VE2OWL
>---
>to reply direct, remove "faux" from e-mail address

989. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 22:21:41 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <VJGr9.10218$1P1.805918@bgtnsc05-news.ops.worldnet.att.net>
Source record: 132878

"Stephan" <sburgoyne@faux9bit.qc.ca> wrote in message
news:3daeb289.90331505@news.9bit.qc.ca...
> Rumors, rumors, rumors, ...
>

No rumor. I personally received the letter from the Quebec government.

Steve

990. Re: crank-up tower info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 23:21:22 UTC
From: gary reichow <kn0v@minn.net>
Message-ID: <3DAF4AD4.FA2201A@minn.net>
Source record: 132880

Hi Gus,
MFJ might be making the old Hy-Gain line. Not many choices
out there though

73, Gary - KN0V

gus wrote:

> I'm in the market for a crank-up tower in the 70 foot range (new)
> and the only ones I can find online are US Tower and Tri-ex . Does
> anyone else currently make a crankup? Thanks

991. Re: Question: Bonding unlike metals for antenna connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-17 23:23:18 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <M_WdnSjEUdqj2zKgXTWcow@News.GigaNews.Com>
Source record: 132879

Kanberi,

Do not put aluminum in contact with copper or brass. I knew somebody who discarded the plated steel screws that came with his antenna, and used new copper screws instead. All the elements fell off within a year.

Tam/WB2TT
"Kanberi" <pti@capnet.com> wrote in message
news:3DADF1E2.4A2663C4@capnet.com...
> I have 14 gauge stranded copper that I want to attached to
> a skinny rod (I think its copper... its one of those ready made
> outfits for making dipoles with a SO-239 and two rods.
> HQ-1 I think)
>
> I don't want to solder it but just clamp it. Is it OK to clamp it
> with one of those buss bars used for electrical work?
> I think its made out of aluminum.
> Will it be a dissimilar metal problem and corrode?
>
> What kind of lacquer is good to coat this connection outdoors?
>

992. Re: wire for antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 00:12:49 UTC
From: k9sqg@aol.com
Message-ID: <20021017201249.14844.00001609@mb-mg.aol.com>
Source record: 132881

Plus the soft-drawn copper stretches so that it automatically lowers the resonent frequency without having to take the antenna down...

993. Re: wire for antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 00:23:28 UTC
From: splanky <splanky@splancus.net>
Message-ID: <4wlr9.87473$oq6.23134@sccrnsc01>
Source record: 132882

So does Menards.

"lc" <larryc@northwest.com> wrote in message
news:3DAF18B2.8DD762E7@northwest.com...
> home depot sells 500' spool of 14 ga solid for $14.
>
> wide range of insulation colors.
>

994. Re: wire for antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 01:00:58 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aonmgamji0@208.207.71.166>
Source record: 132883

lc wrote:
>
> home depot sells 500' spool of 14 ga solid for $14.
>
> wide range of insulation colors.

I have a spool of wire marked "Belden 8009 Solid 14 gauge Antenna Wire, 500 feet". It has a date code 197_ so as late as the 70's Belden did sell the stuff. I don't know if they still do. Has dark enamel insulation. I bent the end of the wire and it seems stiff so looks like it may be hard drawn. Don't remember where I got the half-spool and haven't used it, so I don't know how it holds up. Think I'll put it to use and see.
If it's still on the market I bet it's not $14 a spool!
For what it's worth to anyone.

Dick

995. Re: G5RV, single or double length ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 01:11:16 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aonn3k$nn0$0@208.207.71.166>
Source record: 132884

CAM wrote:
>
> Andy Cowley wrote:
> >
> > CAM wrote:
> > > As I suspected, the
> > > antenna does a good job on 160m, 80m, & 40m. The SWR's on the 50
> > > ohm coax are 4:1 on 1.95 MHz, 4:1 on 4.0 MHz, and 2.4:1 on 7.19 MHz.
> >
> > A 4:1 SWR on coax is good? Must be some new kind of good you're talking
> > about there. 1.4:1 is O.K. but 4:1 is no way 'good'.
>
> Well, would you believe "not bad"? :-) The loss in 100 ft. of RG213 with
> an SWR of 4:1 would be about 0.01 dB higher than the matched line loss
> according to the chart in _The_ARRL_Handbook_. On 160m, the loss increases
> from about 0.22 dB to about 0.23 dB and on 75m, the loss increases from about
> 0.32 dB to about 0.33 dB. Exactly how does one measure that extra 0.01 dB of
> loss caused by an SWR of 4:1?
>

This is why I say that hams all too often fixate on keeping the SWR 1:1
at the expense of all else without understanding what effect it actually
has on THEIR station.
I catch a lot of flak for that but it remains true.

Dick

996. Re: wire for antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 02:05:44 UTC
From: dplatt@radagast.org
Message-ID: <uqur3o7ajkii41@corp.supernews.com>
Source record: 132886

In article <aonmgamji0@208.207.71.166>,
Dick Carroll <dixie@townsqr.com> wrote:

>
> I have a spool of wire marked "Belden 8009 Solid 14 gauge Antenna Wire,
>500 feet". It has a date code 197_ so as late as the 70's Belden did
>sell the stuff. I don't know if they still do. Has dark enamel
>insulation.

Doesn't seem to be available these days... 8009 doesn't appear to be
an item in their on-line catalog.

Closes thing appears to be #8073, a 14-gauge solid-copper magnet wire
with a synthetic-resin enamel insulation (Polyester/amide/imide).

>If it's still on the market I bet it's not $14 a spool!
>For what it's worth to anyone.

Newark wants between $20 and $30 per 80-foot spool of the magnet wire,
depending on how much you order. Ouch. Ordinary household wire seems
like a much better solution, at $15/500' - you could replace an
antenna several times, a few years apart, whenever the plastic
insulation breaks down, and still come out ahead.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

997. Re: Free CB Crystal Mixing Charts

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 02:38:57 UTC
From: aaronharoldvoobner@yahoo.com
Message-ID: <194387a3.0210171838.1dfed95c@posting.google.com>
Source record: 132887
Cross-posted to:
rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.boatanchors,rec.radio.amateur.antenna

Hey Lou, since your charts that allow "for modification to 10M or other freqs." are obviously intended for use by licensed hams, you might get more business if you posted this in ham newsgroups. Doncha think?

-A

Lou Franklin <lou@cbcintl.com> wrote in message news:<kepupughq0glhbpkil8lhah6af2fg4kudk@4ax.com>...
> We've now added all our crystal charts for free download/printing
> (PDF) on our site. These 32 charts cover about 95% of all American
> mobile & base CB models, and show exactly which crystal(s) affects
> which mode or channel. Very useful for troubleshooting "dead
> channels" symptom, or for modification to 10M or other freqs.
>
> Check 'em out at: www.cbcintl.com/xtals/xtals.htm
>
> We specialize in CB books, plans, kits, and high-performance CB
> accessories. Please visit our Web site to see all those "goodies" you
> just can't find anywhere else!
>
> www.cbcintl.com
>
> You can also download our complete CB catalog, or just the Order Form
> from the home page. We've also got a new Email Order Form (for
> VISA/MC) if you're in a hurry.
>
> *
> In case you didn't already know...
>
> Who are we? Since 1976 we've been the leading supplier of books,
> plans, and kits just for CB radio. Do-it-yourself repairs and
> modifications, 10-Meter Ham conversions, amplifiers, FM converters,
> bleedover filters, adding new frequencies, etc. Secrets of how to
> increase your power, range, and privacy.
>
> For product questions or additional details
> on what we offer, please email us directly at:
>
> info@cbcintl.com
>
>
> 73,

> Lou Franklin--President
> K6NH / "SuperSparks"
> **********
> CBC International
> P.O. Box 30655
> Tucson AZ 85751 USA
>
> TOLL-FREE TEL/FAX:
> 888-I-FIX-CBs (1-888-434-9227)
> Local: (520) 298-7980
>
> www.cbcintl.com
>
> Email: info@cbcintl.com

998. Re: Fiberglass guy rod

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 03:01:02 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0210171901.4427e550@posting.google.com>
Source record: 132888

bbrewer@erols.com (Buddy) wrote in message
news:<1315c30d.0210141703.10055aab@posting.google.com>...
> I am having trouble finding info on fiberglass guy rod. What is the
> equivelant size to wire? How is it fastened? Where can I get it?
> Thanks, K4CJB

It's not rod, it's rope, semantics matters around here else you get spanked.

http://www.phillystran.com/

w3rv

999. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 03:54:30 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210171954.605f3644@posting.google.com>
Source record: 132889

'Doc <w5lz@cwis.net> wrote in message news:<3DAEDECD.B149F254@cwis.net>...
> Art,
> You wrote, "...is writing about computor interfacing
> of antennas,". Sounds more like it should be in the
> 'April' edition of QST...
> 'Doc

My understanding was that it was to be in November Q.S.T.
There is quite an interest in operating antennas remotely
by computor for those who cannot install a tower at the
home QTH. computors are also being used for many other
things especially in contesting,monitoring band activity
etc. It is extremely usefull for interfacing with motor
control of variable capacitors and inductancies.
When you think of it Q.S.T has not presented any articles
showing how to control stepping motors for loop antennas
which appear to be of great interest these past years,
or even talked of why loop antennas require more than
one loop to obtain full H.F. coverage.
I would particularly like an article for manual control
of tuners at the tower top without pages and pages of
home brew circuits but by using simple stepper drivers
which are extremely cheap thease days.
Ham radio and radio communications used to be up to date in
ham stuff but unfortunately both are now gone.
I suppose that such articles in Q.S.T. is symbolic of what
one would expect in April, but to attract newcomers to ham
radio we cannot afford to rely solely on articles of yesteryear,
or the assumption that all have the time to homebrew complex
circuit boards at work while the boss is not looking.
Take the time to look at the links provided on the
Steppir page, all of which provides a modern aproach which
is in tune with hams of today.

1000. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 04:24:52 UTC
From: tdonaly@aol.com
Message-ID: <20021018002452.09269.00001555@mb-cb.aol.com>
Source record: 132890

Jerry wrote,
>True story, not a "rumor":
>
>On a vacation trip, we had planned to visit Montreal and spend some
>time (and money) there. As I drove up from New York state, I found
>that the highway signs were in french only and did not include english
>translations.
>
>I didn't have a clue as to what those signs meant. No high-school
>french here! Yet, I was responsible for knowing the rules of the road
>as spelled out by those signs. Made me nervous, to say the least.
>
>I could see Montreal in the distance as I turned and headed back to
>the USA. Never been back to Quebec.
>
>OTOH, I have since been in ALL other provinces of Canada and have
>spent months of vacation time and thousands of $ there. The other
>provinces often provide the vital info in both english and french.
>Not, apparently, Quebec. I won't visit Quebec again. Maybe that is
>what they want?
>
>Jerry W4UK

That's nothing, when I was in Mexico, the road signs were in Spanish, and when I was in Japan they were in Japanese. I expect the Germans are rude enough to put up their road signs in German. The absolute cheek of those foreigners!

Tom Donaly, KA6RUH

1001. DK9SQ MAST/LOOP

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 05:27:43 UTC
From: ardujenski@aol.com
Message-ID: <20021018012743.23841.00000064@mb-fb.aol.com>
Source record: 132891

I am interested in hearing from those that have used the DK9SQ mast/loop.
Comments on overall perormance including reception and approximate rejection
off the ends. Do you recommend for portable DX work?

Alan KB7MBI in Woodinville, WA

1002. Re: Question: Bonding unlike metals for antenna connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 06:41:14 UTC
From: Henrik <henrik>
Message-ID: <3dafad05$0$97625$edfadb0f@dspool01.news.tele.dk>
Source record: 132892

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:M_WdnSjEUdqj2zKgXTWcow@News.GigaNews.Com...
> Kanberi,
>
> Do not put aluminum in contact with copper or brass. I knew somebody who
> discarded the plated steel screws that came with his antenna, and used new
> copper screws instead. All the elements fell off within a year.
>
> Tam/WB2TT

Absolutely!
The aluminium will disappear quickly and the copper stay. Humidity and dirt
from the air is enough to start the corrosion process, and a coating will
only enhance the problem in spots where the coating is not complete.....and
such imperfections will always be present.....
If you want to mix materials, mix only with good stainless which is
(practically) inert, or prepare for the fact, that the less electro
chemically resistant material will be dissolved.

H

1003. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 11:24:26 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dafef6b$0$6010$ba620e4c@news.skynet.be>
Source record: 132893

Maybe worst. Most of the time people from Quebec don't understand why there is no French translation on the US side of the border when they are driving in the opposite direction. Ah ! those nasty Frenchies !

You know, hopefully Napoleon did sell the all Louisiana to US in 1803, which doubled the US territory in one time, ... otherwise maybe Jerry would speak French now. :-))

73 de Jacques - ON5MJ

1004. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 12:00:28 UTC
From: Dean Elwood <dean@legallyspeaking.co.uk>
Message-ID: <aoot4r$8gg$1@helle.btinternet.com>
Source record: 132894

Thanks for the help guys, I need a week or so to digest all of that.

It's been useful actually, I'm sitting my Full Class A licence in December, and the greater understanding I have of the physics I think the easier the exam gets....

D

"Dick Carroll" <dixie@townsqr.com> wrote in message news:aomopetef0@208.206.142.77...
>
>
> Dean Elwood wrote:
> >
> > Many thanks Dick.
> >
> > So is that all a balun is when it's not operating as a matching transformer?
> > A choke.
> >
> > It presumably just stops RF going back down the outer sheilding of the coax?
> >
>
>
> That's one version, but of course it doesn't transform impedances.
> Sometimes a 1:1 transformer might be desirable instead of just a
> decoupling the outer shield. But that decoupling does provide balance
> deending on its efficiency.
> It can be as simple as an RF choke on the outer sheid, but under some
> conditions it doesn't keep RF off the shield. See Reg's post:
>
>
> Thread:
> Re: Still on antenna size constraints.....
> Date: Thu, 17 Oct 2002 14:34:00 +0000 (UTC)
> From: "Reg Edwards" <g4fgq.regp@btinternet.com>
>
> for an excellent explanation.
>
> > Would be useful if there were a device which actually measured any RF doing
> > that, so you could check the efficiency of the balun and adjust it
> > accordingly wouldn't it?
>

>
> Reg and Cecil have addressed this subject in the above thread.
>
>
> >
> > Dean
> >
> > "Dick Carroll" <dixie@townsqr.com> wrote in message
> > news:aoksrgmtp0@208.207.71.173...
> > > >
> > > >
> > > > Dean Elwood wrote:
> > > > >
> > > > > Where on earth (well, in the UK anyway) do you get 1:1 baluns??
> > > > >
> > > > >
> > > >
> > > > Use a longer piece of coax to feed the antenna, then at the antenna
end
> > > > wind 9 to 12 turns of it into a small "hank" about 10 inches in
> > > > diameter,and hang that somewhere near the antenna feedpoint. That's
your
> > > > 1:1 "choke" balun. The number of turns would depend on the lowest
> > > > frequency you will operate. I believe that 10 turns will handle the
> > > > lower end of 80 meters OK.
> > > >
> > > > Dick

1005. icom 737

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 12:51:51 UTC
From: Vince ve3elb <vcl@sympatico.ca>
Message-ID: <FuTr9.11294$Md7.1273127@news20.bellglobal.com>
Source record: 132897

hello all I am looking for the computer control software for the icom-737 hf transceiver can anyone help me in finding it please let me know thank you

Vince ve3elb

1006. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 12:54:15 UTC
From: Alan Beagley <abeagley@optonline.net>
Message-ID: <3DB0047A.2090907@optonline.net>
Source record: 132895

No international traffic symbols?

-=-
Alan

SeeSignature@below.com wrote:

>True story, not a "rumor":
>
>On a vacation trip, we had planned to visit Montreal and spend some
>time (and money) there. As I drove up from New York state, I found
>that the highway signs were in french only and did not include english
>translations.
>
>I didn't have a clue as to what those signs meant. No high-school
>french here! Yet, I was responsible for knowing the rules of the road
>as spelled out by those signs. Made me nervous, to say the least.
>
>I could see Montreal in the distance as I turned and headed back to
>the USA. Never been back to Quebec.
>

1007. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 12:57:54 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <aop0fe$mke@r02n01.cac.psu.edu>
Source record: 132896

You guys are missing the point. Canada is supposed to be BILINGUAL and is in most of the rest of the country. Quebec is actively NON BILINGUAL. Its like Texas deciding to only allow only spanish signs.

--
John Passaneau, W3JXP
Physics Dept. Electronics Shop
Penn State University
104 Davey Lab, University Park , Pa. 16802
814.863.4297, jxp16@psu.edu

"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message
news:3dafef6b$0$6010$ba620e4c@news.skynet.be...
> Maybe worst. Most of the time people from Quebec don't understand why
there
> is no French translation on the US side of the border when they are
driving
> in the opposite direction. Ah ! those nasty Frenchies !
>
> You know, hopefully Napoleon did sell the all Louisiana to US in 1803,
which
> doubled the US territory in one time, ... otherwise maybe Jerry would
speak
> French now. :-))
>
> 73 de Jacques - ON5MJ
>
>

1008. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 15:04:08 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210180704.1277959d@posting.google.com>
Source record: 132899

"N4LQ" <N4LQ@igLou.com> wrote in message news:<3daf642b_3@news.iglou.com>...
> Oct next month? I already have the Nov issue!

Aren't I gullible to have believed such a thing
and it is not even April ! Of course Q.S.T. would not change
but the link I refered to on steppir page is worth
a read even if there is no interest in the antenna
(which by the way I hear is selling in huge numbers)
Art

> --
> Steve Ellington N4LQ.
> "Art Unwin KB9MZ" <aunwin@fgi.net> wrote in message
> news:c4becf19.0210170633.4d5a2c4@posting.google.com...
> > Great article coming in the Q.S.T. next month.
> > Larry a guy from W8 land is writing about computor
> > interfacing of antennas, and he is SHARING information
> > as to where to get the parts without personal gain
> > Thus we will have an article that helps all rather than
> > pages of circuits most could not build.
> > At last we have somebody who has come along and
> > shared his expertise in an area that most members
> > of the antenna groups have a thirsting for.
> > (Sharing just like the hams on this group)
> >
> > At last I have a good reason to purchase a Q.S.T.
> > Hope hams will give a thumbs up to Larry and Q.S.T.
> > As a priper go to the stepper company page and
> > then go to the Links. I have read the link several
> > times and now can't wait for Q.S.T.
> > My e mail address is now aunwin@K insightbb. com
> > Remove capital k and spaces. I don't know how to
> > change the e mail change for these postings.
> > Instructions by E mail would be appreciated
> > Thanks

1009. How to fasten Coax on crank-up tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 15:04:11 UTC
From: "Tim W. Henry" <both@pcisys.net>
Message-ID: <ur08ekh0pgb23c@corp.supernews.com>
Source record: 132898

I am putting several antennas on a crank-up tower. The tower comes with guides to keep the coax & control cables from flopping around. The entire weight of the cables hangs from the top of the tower where they are fastened. Is this OK, or should I fasten the cables to the guides to support their weight at the top of each section of the tower.

Your help will be appreciated,

Tim -- AB0RI

1010. Coaxial Inverted "L" data

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 15:07:02 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <3DB02370.A8DF318E@earthlink.net>
Source record: 132900

Several have written asking for more detailed information on the coaxial inverted "L" antenna for 160m. The article I wrote of earlier was written by Ted Cohen N4XX and appeared in the January, 2001 issue of CQ Magazine. It references an earlier article by Rollman from the August 1984 issue of CQ.

Ted's antenna uses RG-8X (or "mini") which has a velocity factor of .78. If RG-8U or RG-213 were to be used, its velocity factor of .66 would have to be taken into account in coming up with dimensions. Thus the 104 foot piece of cable would become an 88 foot piece. The overall length of the antenna would remain 124 feet. Note that I found it necessary to add about three feet of cable to the 20 foot section to move resonance to 1.850. The formula for determining total antenna length is 230/F (where F=frequency in MHz). The formula for determining the length of the section containing the 1/4 wave shorted stub is [(492)/2] x vf/F (where vf=velocity factor and F=Frequency in MHz. Those formulae will aid in scaling the antenna for 80m.

The antenna is made up of a 104 foot length of the RG-8X fed at the bottom by *feeding the shield* and grounding the center conductor. The far end of the 104 foot piece of cable is shorted. At that shorted point, another 20 feet of cable, shorted at *both ends* is attached.

The inner conductor of the 104 foot section of cable acts as a 1/4 wave shorted stub presenting a high resistive impedance to the feed point at resonance. The off resonance impedance changes in a way which increases bandwidth.

While I've found the antenna to cover the 160m band at under 2:1 SWR, remember that the U.S. band is only 200 KHz wide. The same results will not likely be achieved on 80m where the band is 500 KHz wide. One individual asked about 40m. On that band an inverted "L" of plain old copper wire is likely to have an acceptable SWR across the entire band without resorting to the trouble of fabricating a coaxial inverted "L". My sole contribution to the constuction of such an antenna is to recommend the use of a pulley with a fairly large wheel diameter at the "L" point where the antenna bends. I tie the pulley to an insulator attached to the tower. It prevents a sharp radius at this point and should contribute to a long life for the antenna.

While the vertical portion should be as high as possible, don't worry if you can't get the vertical portion up higher than forty feet or so. Mine runs sixty feet vertically and is perfect for my situation where I have two towers spaced not quite far enough apart to allow placement of a traditional inverted "L" which would have a total length of 165-175 feet (with series capacitor).

For the "horse hockey" crowd--the skeptics who are quick to dismiss things they've never attempted--the antenna works. I've had my coaxial inverted "L" up for about a year. In the very first week I broke a pileup on a 5W in Samoa while running 100 watts. I worked VP8GEO with ease and was one of only 26 eight-land stations to work ET3PMW on 160m. I'm not saying that you'll obtain the same results. My being out in the country atop a high ridge and having a couple of thousand feet of radials beneath the antenna help a bit.

The antenna hears noise as well as any other 160m antenna I've ever tried but it seems immune to precipitation static. I'd guess this is because it is covered in vinyl. For much of the several decades I've been on top band, I've been a proponent of omega matched towers. My present circumstances preclude such an antenna because one of my towers is a crankup and the other is fitted with a Hazer tram system. Thus I decided to try the coaxial inverted "L" because it met a need. The fact that it allows me to operated anywhere in the band without the use of a tuner is simply a bonus.

Finally, the RG-8X version of the coaxial inverted "L" will take the maximum legal U.S. power.

Dave Heil K8MN
Cameron, WV
(not the middle of nowhere but you can see it from my place)

1011. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 15:33:32 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3db029cf$0$5999$ba620e4c@news.skynet.be>
Source record: 132901

I know very well that Canada is bilingual. I was just joking about the fact that somebody could be astonished that road signs are in French in Quebec. The rest is just kidding like Tdonaly did. BTW I am French speaking but I (try to) speak 4 languages and I am living in a trilingual country. So for me it's quite normal to adapt to the local language when I am traveling, isn't it? And after all, French is not so far from English for not understanding road signs.

1012. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 16:01:43 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <aopb9a$oqmus$1@ID-52642.news.dfncis.de>
Source record: 132902

Arthur's description of the article is so "improperly titled" that no one can find it. There is an article in the latest QST that describes an Internet Remote Based Radio system. It allows you to run a complete HF station remotely via the internet and make it available to the public (subject to some stringent security).

What this gives you is access to a ham radio setup (including antenna pointing and switching) if you live in a restricted area and can't put up antennas, etc.

The whole process looks tedious to me, but I live in the country and can put up whatever I want. It still is quite a technical feat they have described and made operational.

The article is not about computer interfacing of antennas. It is about Remote Operation of an entire Ham Station via the Internet. Yes, antennas are included (pointing and switching), but they are hardly the focus of the article, hence, nobody could figure out what the heck Arthur was talking about. It's there....just not quite titled by the subject that he was referring to.

...hasan, N0AN

"Bob Miller" <bxmillerSpamNot@texas.net> wrote in message
news:LdquPS2VrwETEBQ+JtVmvkCfuFrb@4ax.com...
> aunwin@fgi.net (Art Unwin KB9MZ) wrote:
>
> >Great article coming in the Q.S.T. next month.
> >Larry a guy from W8 land is writing about computor
> >interfacing of antennas, and he is SHARING information
> >as to where to get the parts without personal gain
> >Thus we will have an article that helps all rather than
> >pages of circuits most could not build.
> >At last we have somebody who has come along and
> >shared his expertise in an area that most members
> >of the antenna groups have a thirsting for.
> >(Sharing just like the hams on this group)
> >
> >At last I have a good reason to purchase a Q.S.T.
> >Hope hams will give a thumbs up to Larry and Q.S.T.
>
> ???...The article does not appear to be in either the Oct. or Nov. issues
of QST
>
> Bob
> k5qwg

>
> >As a priper go to the stepper company page and
> >then go to the Links. I have read the link several
> > times and now can't wait for Q.S.T.
> >My e mail address is now aunwin@K insightbb. com
> >Remove capital k and spaces. I don't know how to
> >change the e mail change for these postings.
> >Instructions by E mail would be appreciated
> >Thanks
>

1013. Re: How to fasten Coax on crank-up tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 16:08:16 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB031F0.909A0471@cwis.net>
Source record: 132903

Tim,
I think I would use the guides/coax arms. They
do serve a purpose, and you already have them, right?
Reducing the weight hanging from the coax connection
at the top can't do anything but help the life of the
feed line.
'Doc

1014. Re: wire for antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 16:16:46 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB033EE.A7134290@cwis.net>
Source record: 132904

The only problem I've found with using 'thhn' single
wire for antennas is that the insulation (the clear part)
starts to 'shed' after some time exposed to the sun. If
you can live with a 'mangy' looking antenna, it shouldn't
be a problem electrically.
'Doc

1015. Re: icom 737

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 18:25:25 UTC
From: Harald Blaise <harald_b@club-internet.fr>
Message-ID: <3db0520e$0$499$7a628cd7@news.club-internet.fr>
Source record: 132905

"Vince ve3elb" <vcl@sympatico.ca> a crit dans le message de news:
FuTr9.11294$Md7.1273127@news20.bellglobal.com...
>
>
> hello all I am looking for the computer control software for the icom-737
hf
> transceiver can anyone help me in finding it please let me know thank you
>
>
>
>
>
>
>
> Vince ve3elb
>
>
>
>

1016. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 19:53:24 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <aopord$jhs@r02n01.cac.psu.edu>
Source record: 132906

It's a lot easier than trying to decipher the "international" symbols that I see. Some of them are so obscure
that I have to pull over and look them up.
My name is French, and when I'm in France, they seem to think I can speak french, like it was genetic.
Unfortunately I only speak american and that badly.

--
John Passaneau, W3JXP
Physics Dept. Electronics Shop
Penn State University
104 Davey Lab, University Park , Pa. 16802
814.863.4297, jxp16@psu.edu

"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message news:3db029cf$0$5999$ba620e4c@news.skynet.be...
> I know very well that Canada is bilingual. I was just joking about the fact
> that somebody could be astonished that road signs are in French in Quebec.
> The rest is just kidding like Tdonaly did. BTW I am French speaking but I
> (try to) speak 4 languages and I am living in a trilingual country. So for
> me it's quite normal to adapt to the local language when I am traveling,
> isn't it? And after all, French is not so far from English for not
> understanding road signs.
>
>

1017. 73 Magazine Article Help Needed September 2002 Issue

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 20:19:15 UTC
From: dinoal7lz@aol.com
Message-ID: <20021018161915.02028.00003606@mb-fc.aol.com>
Source record: 132907

73 magazine had a three-part article in the July/August/September issues by K8ZOA on a VLF to HF loop receiving antenna that I want to build....I've got parts 1 and 2 but missed the Sep issue. Anyone out there have that issue who could make a copy or scan the third part from the Sep issue for me?

Thanks very much in advance!

Dino KL0S/4

1018. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 20:22:49 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB06D99.E8BD7775@cwis.net>
Source record: 132908

hasan,
thanks for clarifying that. It makes a bit more
sense now, although, I don't see how the 'security'
part of running a remote station like this can be
done reliably. I think it would be much more
trouble than it would be worth.
'Doc

1019. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 20:22:52 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB06D9C.8E3BF2BB@ieee.org>
Source record: 132909

'Doc wrote:
> thanks for clarifying that. It makes a bit more
> sense now, although, I don't see how the 'security'
> part of running a remote station like this can be
> done reliably. I think it would be much more
> trouble than it would be worth.

Lots of hams run their remote HF systems/antennas over UHF.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1020. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 20:37:48 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB0711C.263FC635@cwis.net>
Source record: 132910

Art,
I wonder how the 'control operator' is going to
do the 'security' needed for that kind of set up.
Not too sure you really could be sure the 'remote'
operator was qualified to use the thing without a
lot of extra work.
you might check the back issues of QST, I think
you will find several articles about stepper motors
and their use in amateur radio. I can remember seeing
several articles, but it's been a while. The same
holds for the loop antennas, there have been a number
of articles, you just need to find them.
As far as attracting new people to the hobby, I just
don't think that's as big a concern as some people make
it out to be. Those who are interested will find a way
into the hobby, those that have to be coerced into it
should wait till they have a genuine interest. It seems
I remember hearing about all the people just waiting
till the code/theory requirements were made easier so
that they could get into ham radio. I haven't seen a
large surge in the ham population, have you? Or, maybe
they're just waiting till they can get a license with
a couple of box tops?
'Doc

1021. Re: 73 Magazine Article Help Needed September 2002 Issue

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 20:50:56 UTC
From: Jack Smith <jsmith@mnsinc.com>
Message-ID: <g0t0ru0lk8n3fhp6pj2p8ftrkh9r9bi3g7@4ax.com>
Source record: 132911

Hi Dino:

I'll mail you a copy if you would like.

Jack K8ZOA

On 18 Oct 2002 20:19:15 GMT, dinoal7lz@aol.com (Dino AL7LZ) wrote:

>73 magazine had a three-part article in the July/August/September issues by
>K8ZOA on a VLF to HF loop receiving antenna that I want to build....I've got
>parts 1 and 2 but missed the Sep issue. Anyone out there have that issue who
>could make a copy or scan the third part from the Sep issue for me?
>
>Thanks very much in advance!
>
>Dino KL0S/4

1022. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 21:47:18 UTC
From: Allodoxaphobia <nobody@jonz.net>
Message-ID: <slrnar10b5.ugn.nobody@animas.frontier.net>
Source record: 132912

On Fri, 18 Oct 2002 15:37:48 -0500, 'Doc hath writ:
> It seems
> I remember hearing about all the people just waiting
> till the code/theory requirements were made easier so
> that they could get into ham radio. I haven't seen a
> large surge in the ham population, have you? Or, maybe
> they're just waiting till they can get a license with
> a couple of box tops?

Oh, they're there. They're just all Shack-On-The-Hip appliance
operators. 2M FM once was passably useable - years ago.
I find nothing of substance there anymore and have forsworn its use.

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

1023. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 21:52:07 UTC
From: dplatt@radagast.org
Message-ID: <ur10k7fe7sdqce@corp.supernews.com>
Source record: 132913

> thanks for clarifying that. It makes a bit more
> sense now, although, I don't see how the 'security'
> part of running a remote station like this can be
> done reliably. I think it would be much more
> trouble than it would be worth.

Were I to do it, I'd probably build the control mechanism to "look like" a secure Web server, using SSL to encrypt the control link when passing over the Internet. Access control and authorization could be handled as a Web security domain (via .htaccess or a similar username/password system) or by the use of individual client-side PKI security certificates.

A secondary set of ports (either TCP or UDP) would allow access to the audio channels, PTT control, etc., and access to these ports could be restricted via IP firewalling, with the firewall being managed automatically by the Web-based control mechanism.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

1024. Re: Why use barbed wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 22:33:01 UTC
From: Pappy@USA.net
Message-ID: <3DB08C1D.2B35FB3B@USA.net>
Source record: 132914

Na, they tend to keep the bad people from getting onto your radio.

Mike Coslo wrote:

> Hey, do all those little spurs act like capacitance hats? ;^)
>
> - Mike KB3EIA -

1025. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 22:39:07 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <f40s9.453$z5.309891@newssvr28.news.prodigy.com>
Source record: 132915

Just to set the record straight, my article was scheduled for the November issue, but I got an email from ARRL saying that it is being rescheduled for another issue in the near future.

The article that's in the November issue was written by some guys I met on the TRX-Manager reflector...it's been scheduled for longer than mine was...I think they wanted to put us together in the same issue but ran out of space.

Anyway, my article describes a remote base system that I'm using that controls the rig, rotator, and a software interface panel that reads and displays up to eight analog voltage parameters at the remote site, and controls up to 16 relays...4 of which can be used to control a Top Ten Devices Band Decoder/Antenna Switch.

A major feature of the setup is that no computer is required at the remote site. The control is secure because I use direct dialup over ISDN, using one of the 2 channels for audio and the other for control...passwords are required to dialin. Where I live, ISDN is readily available and is actually cheaper than two analog phone lines, and provides two high quality digital lines. The audio in this arrangement is far better than any internet type of audio...which I require because I use PSK and MFSK, as well as cw and SSB. Using a standard phone line for control, and VHF/UHF link for audio would also work. There are more details on my website...www.telepostinc.com/n8lp.html

The antenna control software will be part of a future article I'm working on that will describe a software tuneable minibeam I have built. The antenna is pretty much done and tested...the autotuner works, and the software is done...I just need to perfect the phase detector that monitors reflector phase, so that it will work reliably under SSB use (wide power swings).

The antenna will be easily duplicated with standard hardware, plus both off-the-shelf boards and a little homebrew construction for the controller/serial interface. I will also probably make a kit available for those who want something more turnkey.

The project is close enough to being finished that I can state pretty confidently that it should not be placed in the April issue ;-)

73,

Larry N8LP

"CAM" <Cecil.A.Moore@ieee.org> wrote in message news:3DB06D9C.8E3BF2BB@ieee.org...
'Doc wrote:
> thanks for clarifying that. It makes a bit more

> sense now, although, I don't see how the 'security'
> part of running a remote station like this can be
> done reliably. I think it would be much more
> trouble than it would be worth.

Lots of hams run their remote HF systems/antennas over UHF.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1026. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 23:06:11 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <oKydnR7i0cEIPi2gXTWcqg@ctc.net>
Source record: 132719

The US has 3 classes of license being issued now. Technician good for 50 mhz and up. No code needed.
General good for all bands but restricted as to frequency segments in each band below 50 mhz. Code at 5 wpm needed for General and Extra.
Extra , the highest, good for all ham privilages.

You can go to www.qrz and see a practice test.
The test is a question and you get 4 possiable answers . You pick the best one. You can get a book from many sources that contain the exect question and answers. Forgot the precentage of answers but think that it is 70 % correct.

> ==========
>
> Dean, I wish you success and my curiosity is aroused.
>
> What sort of exam is your USA Full Class A Ticket ?
>
> Leaving aside the non-technical stuff, is it an exam which requires plain
> English 'written' answers to questions, or does it require a tick to be
> placed in the little box provided alongside each of 5 possible answers
> offered to candidates by the examiner, ie., the box which is deemed by the
> candidate to be alongside the most correct of the 5 answers?
>

1027. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 23:07:32 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <4ro0ru081koioodmpkr99jacrnksqghtsb@4ax.com>
Source record: 132916

On Thu, 17 Oct 2002 18:33:42 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

>On Thu, 17 Oct 2002 11:03:34 -0500, 'Doc <w5lz@cwis.net> wrote:
>
>>
>>
>> Yeah, we're all waiting with bated breath. Or is
>>that 'baited' breath?
>> 'Doc
>
>Hi Doc,
>
>Bated: stilled, stopped (you weren't really holding your breath were
>you?).
>
>Baited: suckered, cheated, lied to (I repeat, you weren't really
>holding your breath were you?).
>
>Still and all, either definition applies to this anniversary of the
>abysmal trouncing that fractals received. Halloween is also an
>appropriate time to dig up those corpses and dress them up for sale
>(or is it sail?) or peer review at the next comic book convention.
>
>73's
>Richard Clark, KB7QHC

Will Chip step up to prove you wrong this time? He seemed quite
sure of himself in his last statement about his methods; to wit:

"We do not use a conventional genetic algorithm. That would be far,
far too slow, and also impossible to use for complex structures, as
the genome would be astronomically large.

"What we have is not shareware, nor purchased; it is proprietary.

"The FOM has to be coded; normally this is an easy task.

"How the engine works is not important; what is key is its ability to
identify something 'better' than what's out there. It is basically a
black box for this exercise. It is the I/O that's of interest.

"You may wish to use shareware to run your own exercise, although I
suspect that it will be 3 orders of magnitude slower, and possibly
more."

1028. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 23:07:33 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <v8p0ru05p0g936g9q7242au8des0b8o8ue@4ax.com>
Source record: 132917

On 18 Oct 2002 04:24:52 GMT, tdonaly@aol.com (Tdonaly) wrote:

>Jerry wrote,
>>True story, not a "rumor":
>>
>>On a vacation trip, we had planned to visit Montreal and spend some
>>time (and money) there. As I drove up from New York state, I found
>>that the highway signs were in french only and did not include english
>>translations.
>>
>>I didn't have a clue as to what those signs meant. No high-school
>>french here! Yet, I was responsible for knowing the rules of the road
>>as spelled out by those signs. Made me nervous, to say the least.
>>
>>I could see Montreal in the distance as I turned and headed back to
>>the USA. Never been back to Quebec.
>>
>>OTOH, I have since been in ALL other provinces of Canada and have
>>spent months of vacation time and thousands of $ there. The other
>>provinces often provide the vital info in both english and french.
>>Not, apparently, Quebec. I won't visit Quebec again. Maybe that is
>>what they want?
>>
>>Jerry W4UK
>
>That's nothing, when I was in Mexico, the road signs were in Spanish, and
>when I was in Japan they were in Japanese. I expect the Germans are
>rude enough to put up their road signs in German. The absolute cheek of
>those foreigners!
>
>Tom Donaly, KA6RUH

Are Canadians foreigners?

Anyway, my recollection from studying history is that General Wolfe
and General Montcalm had the issue of national sovereignity decided on
the Plains of Abraham a couple of centuries ago.

>

1029. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-18 23:49:19 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aoq6lu$2a9$1@venus.btinternet.com>
Source record: 132918

"Dean Elwood" wrote -
> Thanks for the help guys, I need a week or so to digest all of that.
> It's been useful actually, I'm sitting my Full Class A licence in
December,
> and the greater understanding I have of the physics I think the easier the
> exam gets....
==========

Dean, I wish you success and my curiosity is aroused.

What sort of exam is your USA Full Class A Ticket ?

Leaving aside the non-technical stuff, is it an exam which requires plain English 'written' answers to questions, or does it require a tick to be placed in the little box provided alongside each of 5 possible answers offered to candidates by the examiner, ie., the box which is deemed by the candidate to be alongside the most correct of the 5 answers?

Over here we have the occasional situation where the examiner (old wife?) is unable to provide, amongst the 5 possibilities, the correct answer to his own question. That's just an opinion of course. <grin>

From a reasonable number of questions covering a number of topics it is then possible for marking to be done by computer which calculates whether or not the candidate's score is above or below a predermined pass or fail level.

Immediately following the exam it is also possible for the computer to adjust the pass/fail level such that only a certain fraction of candidates are successful. Or that only a certain number of candidates are succcessful depending on how large large or small the national radio amateur population is deemed by the licensing authority to be optimum. We then have a competition not between candidates and the examiners (who set the questions) but between the candidates themselves! What the questions is not relevant.

I have no idea of how things operate in the States. I don't have much of an idea of how things operate in the UK. But we all have our own individual ideas on how to get kicks out of the hobby.

Any other comments on where the computer age is leading (or is it dragging) us ?

I'm wandering around on South Eastern Australian vintage red tonight. It's supposed to cleanse the arteries. Anyway it takes my mind off oil.

==========
Regards from Reg G4FGQ
Free Radio Design Software

Go to http://www.g4fgq.com
==========

1030. HF6V feedpoint (ground side)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 01:08:15 UTC
From: vswrref@hotmail.com
Message-ID: <3db0aecb.1016727@national-news.stargate.net>
Source record: 132720

Hi all!

I'm about ready to mount my HF6V vertical and after reading the directions, I'm looking for somebody who's had some experience with this antenna since I'm trying to determine which items to put in order on the ground mounting screw. Should the Q-coil go on first, then the line from the radials then the briaded side of the coax? Is another order better or does it matter at all? My view is since it's ground, it shouldn't make much of a difference, but looking for s second opinion.

Jeff

1031. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 01:28:18 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <3DB0B532.1050003@core.com>
Source record: 132721

Just don't expect English Common Law in Louisiana. They follow Code
Napoleon there.

Dave WD9BDZ

ON5MJ wrote:

>Maybe worst. Most of the time people from Quebec don't understand why there
>is no French translation on the US side of the border when they are driving
>in the opposite direction. Ah ! those nasty Frenchies !
>
>You know, hopefully Napoleon did sell the all Louisiana to US in 1803, which
>doubled the US territory in one time, ... otherwise maybe Jerry would speak
>French now. :-))
>
>73 de Jacques - ON5MJ
>
>
>
>

1032. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 01:30:48 UTC
From: N4LQ <N4LQ@igLou.com>
Message-ID: <3daf642b_3@news.iglou.com>
Source record: 132885

Oct next month? I already have the Nov issue!

--
Steve Ellington N4LQ.
"Art Unwin KB9MZ" <aunwin@fgi.net> wrote in message
news:c4becf19.0210170633.4d5a2c4@posting.google.com...
> Great article coming in the Q.S.T. next month.
> Larry a guy from W8 land is writing about computor
> interfacing of antennas, and he is SHARING information
> as to where to get the parts without personal gain
> Thus we will have an article that helps all rather than
> pages of circuits most could not build.
> At last we have somebody who has come along and
> shared his expertise in an area that most members
> of the antenna groups have a thirsting for.
> (Sharing just like the hams on this group)
>
> At last I have a good reason to purchase a Q.S.T.
> Hope hams will give a thumbs up to Larry and Q.S.T.
> As a priper go to the stepper company page and
> then go to the Links. I have read the link several
> times and now can't wait for Q.S.T.
> My e mail address is now aunwin@K insightbb. com
> Remove capital k and spaces. I don't know how to
> change the e mail change for these postings.
> Instructions by E mail would be appreciated
> Thanks

1033. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 02:01:32 UTC
From: fractenna@aol.com
Message-ID: <20021018220132.11486.00002417@mb-cv.aol.com>
Source record: 132722

>
>Just to set the record straight, my article was scheduled for the November
>issue, but I got an email from ARRL saying that it is being rescheduled for
>another issue in the near future.
>
>The article that's in the November issue was written by some guys I met on
>the TRX-Manager reflector...it's been scheduled for longer than mine was...I
>think they wanted to put us together in the same issue but ran out of space.
>
>Anyway, my article describes a remote base system that I'm using that
>controls the rig, rotator, and a software interface panel that reads and
>displays up to eight analog voltage parameters at the remote site, and
>controls up to 16 relays...4 of which can be used to control a Top Ten
>Devices Band Decoder/Antenna Switch.
>
>A major feature of the setup is that no computer is required at the remote
>site. The control is secure because I use direct dialup over ISDN, using one
>of the 2 channels for audio and the other for control...passwords are
>required to dialin. Where I live, ISDN is readily available and is actually
>cheaper than two analog phone lines, and provides two high quality digital
>lines. The audio in this arrangement is far better than any internet type of
>audio...which I require because I use PSK and MFSK, as well as cw and SSB.
>Using a standard phone line for control, and VHF/UHF link for audio would
>also work. There are more details on my
>website...www.telepostinc.com/n8lp.html
>
>The antenna control software will be part of a future article I'm working on
>that will describe a software tuneable minibeam I have built. The antenna
>is pretty much done and tested...the autotuner works, and the software is
>done...I just need to perfect the phase detector that monitors reflector
>phase, so that it will work reliably under SSB use (wide power swings).
>
>The antenna will be easily duplicated with standard hardware, plus both
>off-the-shelf boards and a little homebrew construction for the
>controller/serial interface. I will also probably make a kit available for
>those who want something more turnkey.
>
>The project is close enough to being finished that I can state pretty
>confidently that it should not be placed in the April issue ;-)
>
>73,
>
>Larry N8LP
>

Larry--

Is this a better system (I presume) than what Roger Strauch was using out on the west coast a few years back?

73,
Chip N1IR

1034. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 02:58:16 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <3DB0CA48.7291343C@sympatico.ca>
Source record: 132723

>
> I know very well that Canada is bilingual. I was just joking about the fact
> that somebody could be astonished that road signs are in French in Quebec.
> The rest is just kidding like Tdonaly did. BTW I am French speaking but I
> (try to) speak 4 languages and I am living in a trilingual country. So for
> me it's quite normal to adapt to the local language when I am traveling,
> isn't it? And after all, French is not so far from English for not
> understanding road signs.

Maybe, but I have encountered a LARGE highway sign a few miles East of Montreal which appears to be a very important warning, presumably of some safety hazard, and neither I nor my francophone passenger could even hazard a guess as to the message it was trying to convey.

A while back while driving through Montreal I determined that the electronic signs were advising me that the road ahead was flooded - turned out they were saying traffic was flowing! French can be quite far from English at times.

Dave

1035. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 03:43:45 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB0D4F1.DC31ABD4@ieee.org>
Source record: 132724

Dave Holford wrote:
> A while back while driving through Montreal I determined that the
> electronic signs were advising me that the road ahead was flooded -
> turned out they were saying traffic was flowing! French can be quite far
> from English at times.

I saw a Spanish sign in a hallway the other day. I thought at first
it said that someone had urinated on the floor.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1036. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 04:31:50 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <We5s9.490$z5.360490@newssvr28.news.prodigy.com>
Source record: 132725

Hi Chip,

Not sure which system his was. Was it the one that was written up in QST a few years ago?

Better is relative. I know some of the systems in the past have been based on the Kachina rig and aux boxes...which are no longer. I think AES used to make an interface that some people used also...but don't hold me to it.

I had several things in mind when I did mine.

1. It had to be generic...be adaptable to any rig, any control/logging/PSK software, any network connection. By converting the equipment serial ports to TCP ports and plugging all the equipment into a router...all that is necessary to access the equipment is to plug the router into a TCP/IP network connection of some kind. It could be internet, but I prefer direct dialin. At home, the equipment ports appear on the station computer as "virtual" com ports, which can be selected with any program that communicates through serial ports. So you are really seeing the equipment, piece by piece on your desktop as though it was plugged into a serial port on the back of your computer. It also lets you control a rig from another rig's front panel instead of using software, for certain rigs.

2. No computer at the remote site...most systems today use a computer running a program like TRX-Manager...usually with pcAnywhere or similar to control things. Remote desktop control is too slow for PSK displays, plus you have the hassle of maintenance on the remote computer if it needs rebooting, etc. My whole setup consists of a multiport serial device server, an ISDN LanModem/Router and my A/D-relay box. Three boxes running off of a deep cycle battery.

3. Totally secure. That led me to landline control, with password protection for both audio and control lines. The LanModem provides password protection for the control port, and the audio hybrid has password protection for the audio port...plus DTMF tone control of 8 relays at the remote site as backup control in case the software control link fails while transmitting, etc. as required by FCC.

4. High quality audio...this is why I settled on ISDN. It's a dedicated dual 64kbps line, with extremely low latency (it's used within most central offices for switching and connecting all phone calls, so you're used to hearing it when you use the phone in terms of latency). NetMeeting and the like are marginal for latency. Also, since I send PSK tones for transmission, the transmitted spectrum would be compromised with lesser quality lines. The quality is good enough that I can send keyed tone for cw, so that I can use a paddle instead of a keyboard for cw if I want.

There is a link to a help file on my website near the bottom of the page
under Remote Control that has a block diagram and further info.
--
Larry N8LP

"Fractenna" <fractenna@aol.com> wrote in message
news:20021018220132.11486.00002417@mb-cv.aol.com...
>
>Just to set the record straight, my article was scheduled for the November
>issue, but I got an email from ARRL saying that it is being rescheduled for
>another issue in the near future.
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>The article that's in the November issue was written by some guys I met on
>the TRX-Manager reflector...it's been scheduled for longer than mine
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>think they wanted to put us together in the same issue but ran out of
space.
>
>Anyway, my article describes a remote base system that I'm using that
>controls the rig, rotator, and a software interface panel that reads and
>displays up to eight analog voltage parameters at the remote site, and
>controls up to 16 relays...4 of which can be used to control a Top Ten
>Devices Band Decoder/Antenna Switch.
>
>A major feature of the setup is that no computer is required at the remote
>site. The control is secure because I use direct dialup over ISDN, using
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>of the 2 channels for audio and the other for control...passwords are
>required to dialin. Where I live, ISDN is readily available and is actually
>cheaper than two analog phone lines, and provides two high quality digital
>lines. The audio in this arrangement is far better than any internet type
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>audio...which I require because I use PSK and MFSK, as well as cw and SSB.
>Using a standard phone line for control, and VHF/UHF link for audio would
>also work. There are more details on my
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>The antenna control software will be part of a future article I'm working
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>done...I just need to perfect the phase detector that monitors reflector
>phase, so that it will work reliably under SSB use (wide power swings).
>
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>those who want something more turnkey.
>
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>
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>
>Larry N8LP
>

Larry--

Is this a better system (I presume) than what Roger Strauch was using out on the west coast a few years back?

73,
Chip N1IR

1037. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 05:03:59 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB0E7BF.AAB94FDD@cwis.net>
Source record: 132726

CAM,
That's true, but the key word was 'their' radio
station, not one that was accessed from the internet
by people you know nothing about.
'Doc

1038. Need schematic diagram for linear amplifier

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 09:58:54 UTC
From: Robban <sm0xod@hotmail.com>
Message-ID: <y1as9.280$1r1.10498@newsc.telia.net>
Source record: 132727

Hi i am looking for a schematic diagram for this solid state linear
amplifier
http://w1.855.telia.com/~u85529008/slutsteg.htm
I hope anyone can help me!
73 de sm0xod Robban Sweden

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.404 / Virus Database: 228 - Release Date: 2002-10-15

1039. 3/4 wave Zepa Sloper

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 10:07:59 UTC
From: Alex <alex.draper1@rogers.com>
Message-ID: <3aas9.14333$mxk1.4873@news04.bloor.is.net.cable.rogers.com>
Source record: 132728

Hello, I have a interest in learning more about sloper antennas. The internet doesn't have much in the way of homebrew plans for such a beast. I found a site showing a 3/4 wave Zepa Sloper but it doesn't give the formula for the 3/4 wave wire. I would love some feedback on this topic. 73

http://www.geocities.com/no-code-tech/more_wire.html

1040. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 11:06:05 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <XjyxPcflilrjQUghka7Hv4VsHFRh@4ax.com>
Source record: 132729

"hasan schiers" <schiers@netins.net> wrote:

>Arthur's description of the article is so "improperly titled" that no one
>can find it. There is an article in the latest QST that describes an
>Internet Remote Based Radio system. It allows you to run a complete HF
>station remotely via the internet and make it available to the public
>(subject to some stringent security).

But that article is not by "Larry in W8-land..."

1041. Re: 3/4 wave Zepa Sloper

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 11:18:53 UTC
From: KC1DI <elbc2@gwi.net>
Message-ID: <5ff2rucgjhocc4aafs72pkvuhesmaa1f8v@4ax.com>
Source record: 132730

On Sat, 19 Oct 2002 10:07:59 GMT, "Alex" <alex.draper1@rogers.com>
wrote:

>Hello, I have a interest in learning more about sloper antennas. The
>internet doesn't have much in the way of homebrew plans for such a beast. I
>found a site showing a 3/4 wave Zepa Sloper but it doesn't give the formula
>for the 3/4 wave wire. I would love some feedback on this topic. 73
>
>http://www.geocities.com/no-code-tech/more_wire.html
>

Hi The sloper is a good antenna it gives a little gain in the
direction of the slope especially if mountend against a tower of metal
mast. but is worth doing in any event.. espesially good antenna on 40
meters and below... not magic to it , if you have a tower of metal
mast- use a quarter wave sloper-- 234/freq mhz=length mount it so the
angle to ground is about 45 degrees. If you do not have a metal mast
you can use a half wave diople and slope it 45 degrees.. 468/fMhz=
length in feet. 3/4 and 1 wave slopers will also work.. 3/4 wave
702/fMhz=length in feet. full wave 936/fMhz=length in feet. I've
used all of them to good account in the past. give it a try.
73 Dave
CQ had a series of articles on sloper last year I belief you might
check with your local library see if they could get them for you.

1042. Re: HF6V feedpoint (ground side)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 11:44:48 UTC
From: K4SQR@juno.com
Message-ID: <7c8be5b4.0210190344.5f34042f@posting.google.com>
Source record: 132731

Jeff;

The described sequence is fine and does not matter electrically.
Just be sure to install as many radials (up to 60) as possible for
good low angle DX work.

Good luck,
Jim, K4SQR

vswrref@hotmail.com (Jeff Y.) wrote in message
news:<3db0aecb.1016727@national-news.stargate.net>...
> Hi all!
>
> I'm about ready to mount my HF6V vertical and after reading the
> directions, I'm looking for somebody who's had some experience with
> this antenna since I'm trying to determine which items to put in order
> on the ground mounting screw. Should the Q-coil go on first, then the
> line from the radials then the briaded side of the coax? Is another
> order better or does it matter at all? My view is since it's ground,
> it shouldn't make much of a difference, but looking for s second
> opinion.
>
>
> Jeff

1043. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 13:09:52 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aorlj0$g7m$0@208.206.142.102>
Source record: 132732

CAM wrote:
>
> Dave Holford wrote:
> > A while back while driving through Montreal I determined that the
> > electronic signs were advising me that the road ahead was flooded -
> > turned out they were saying traffic was flowing! French can be quite far
> > from English at times.
>
> I saw a Spanish sign in a hallway the other day. I thought at first
> it said that someone had urinated on the floor.

In Spanish isn't the meaning the same?

1044. Re: HF6V feedpoint (ground side)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 14:25:58 UTC
From: NickyWK345@nick-at-nite.net
Message-ID: <3DB16B76.2F1D6222@nick-at-nite.net>
Source record: 132733

There is a God, I would like to see what happens when YOU mount your antenna. Exactly what pleasure does one derive from that? You do the mounting as "I" will push a few hundred watts through it. That should brighten your day.

Seriously Jeff, check the assembly instructions.

"Jeff Y." wrote:

> Hi all!
>
> I'm about ready to mount my HF6V vertical and after reading the
> directions, I'm looking for somebody who's had some experience with
> this antenna since I'm trying to determine which items to put in order
> on the ground mounting screw. Should the Q-coil go on first, then the
> line from the radials then the briaded side of the coax? Is another
> order better or does it matter at all? My view is since it's ground,
> it shouldn't make much of a difference, but looking for s second
> opinion.
>
> Jeff
>
>

1045. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 14:52:51 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB171C3.BF67C835@ieee.org>
Source record: 132734

Dick Carroll wrote:
> In Spanish isn't the meaning the same?

It may be the same as English. One can have a wet floor
or a wet diaper.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1046. Re: Vertical w/without ground ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 15:18:21 UTC
From: "Kenneth D. Grimm, K4XL" <kgrimm@adelphia.invalid>
Message-ID: <tat2rukei74ccvg96s2da9c8bhc2echqkt@4ax.com>
Source record: 132735

On Wed, 02 Oct 2002 23:35:55 GMT, Paul N3EOP
<n3eop@arrl.or.callsign.net> wrote:

>Force 12 Sigma-5. True vertical dipole, and a heck of a performer. No
>ground radials needed. Looks like a capital letter "I"; 9 feet high
>with the crossbars sticking out 2 feet on each side. I have mine on the
>roof (flat roof) in a bucket of concrete.

Quoting from the Sigma 5 manual, "The Sigma 5 should not be placed too
high above ground. If vertical antennas are placed too high, the
energy splits off and creates a high angle lobe that actually has more
energy than the desired low angle lobe. As the vertical is raised,
the height above ground changes in terms of wavelength and the bands
are not the same (i.e. 10 meters changes twice as fast as 20 meters).
The feed point will also change, as the higher heights lower the feed
point impedance...."

I've just ordered one of these critters for use at the beach condo
until the CC&R police shut me down. Since a couple of my neighbors
have ship to shore verticals mounted permanently to the side of their
units, I'm hoping that my intermittent use of the Sigma 5 will be
either unnoticed and/or ignored.

Ken K4XL - Replace "invalid" with "net" to reply.
*** BoatAnchor Manual Archive ***
On the web at http://bama.sbc.edu or
FTP site info: bama.sbc.edu login: anonymous p/w: youremailadr

1047. Tower base bolt corrosion prevention ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 15:26:44 UTC
From: AA6QN <aa6qn@excite.com>
Message-ID: <3DB179B8.E8584B93@excite.com>
Source record: 132736

Not sure if this is the right forum for this? Here goes, I am in the process of rebuilding a self supporting tower to replace an older fixed guyed tower. The concrete foundation was layed several years ago that made use of 1 inch dia high tension J-Bolts. I noticed that there was corrosion right at the cement level on the bolts. I know rust never sleeps :-(

I am having a adapter plate made for the replacement tower but wanted to perform some kind of corrosion prevention on those bolts prior to setting the plate in place. especially at the point where the bolt leaves the concrete.

I was thinking about the old sailor method of using grease between the adapter plate and concrete but did not want to trap moisture. Was also looking a LPS compounds the dry to a hard surface.

Construtive idea's are welcome. Tower safety starts at the beginning.

Best Regards, John

1048. Re: icom 737

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 16:11:31 UTC
From: Al <ABurzynski@nojunk.satx.rr.com>
Message-ID: <Tufs9.164596$8o3.4679239@twister.austin.rr.com>
Source record: 132737

Try here under Free Software
http://www.barryrimmer.com/

Al
KA5JGV

"Vince ve3elb" <vcl@sympatico.ca> wrote in message
news:FuTr9.11294$Md7.1273127@news20.bellglobal.com...
>
>
> hello all I am looking for the computer control software for the icom-737
hf
> transceiver can anyone help me in finding it please let me know thank you
>
>
>
>
>
>
>
> Vince ve3elb
>
>
>
>

1049. Re: Tower base bolt corrosion prevention ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 17:24:23 UTC
From: richardharrison@webtv.net
Message-ID: <11860-3DB19547-232@storefull-2316.public.lawson.webtv.net>
Source record: 132779

John, AA6QN wrote:
"I am having an adapter plate made for the replacement tower but wanted to perform some kind of corrosion prevention on those bolts prior to setting the plate in place, especially at the point where the bolt leaves the concrete."

The concrete never completes its chemical reaction. There is always free water within the concrete available to react with the cement. Concrete placed by the ancient Romans is still reacting and getting stronger every year.

John missed his chance to simply protect his J-bolts with a hot-dip galvanize treatment before pouring concrete around them. The J-bolts are in a perpetually damp environment

Galvanize the adapter plates before installation. Bury zincs around the tower bases and connect them with the rusting bolts. The zincs in the soil will slowly eat away and will in time require replacement. But, rusting of the bolts will stop. Minimize contact with the soil of copper wire connections for the zincs or the cathodic protection current would be mostly between zinc and copper instead of between zinc and steel.

Best regards, Richard Harrison, KB5WZI

1050. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 17:39:15 UTC
From: richardharrison@webtv.net
Message-ID: <11864-3DB198C3-3@storefull-2316.public.lawson.webtv.net>
Source record: 132781

CAM, W5DXP wrote:
"It may be the same in English."

"Piso Mojado" is literally: floor wer.

Best regards, Richard Harrison, KB5WZI

1051. Re: Press Release

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 18:11:43 UTC
From: richardharrison@webtv.net
Message-ID: <24822-3DB1A05F-551@storefull-2318.public.lawson.webtv.net>
Source record: 132780

I wrote: "floor wer"
Aquel adjetivo es "wet". No es "wer".

Best regards, Richard Harrison, KB5WZI

1052. UHF antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 18:35:09 UTC
From: haytirebl@aol.compost
Message-ID: <20021019143509.18496.00002297@mb-fz.aol.com>
Source record: 132738

Hi All,
In the Radio Shack book "ANTENNAS" / 62-1083, on page 11-12, there are plans for a uhf / 440 mhz unit. I have built this thing many times for use with ATV. Now my question. What are the changes I need to make to use this as a recieve only antenna for 638-644 mhz? Any help will be greatly appreciated! Thanks in advance.

KB0WYG

Tom

The report claimed the aircraft made funny noises, I walked out and told it to start sounding like a real airplane....or else

1053. Re: UHF antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 19:25:20 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB1B1A0.3F8914CA@ieee.org>
Source record: 132739

HAYTI REBL wrote:
>
> Hi All,
> In the Radio Shack book "ANTENNAS" / 62-1083, on page 11-12, there are plans
> for a uhf / 440 mhz unit. I have built this thing many times for use with ATV.
> Now my question. What are the changes I need to make to use this as a recieve
> only antenna for 638-644 mhz? Any help will be greatly appreciated! Thanks
> in advance.

Antennas are scalable to wavelength. If you change all the dimensions by 440/640,
you should be very close.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1054. Re: Still on antenna size constraints.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 19:45:06 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <hhc3ru4knslqvn2h4l79p83buasg6gm75q@4ax.com>
Source record: 132740

On Fri, 18 Oct 2002 23:49:19 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>Leaving aside the non-technical stuff, is it an exam which requires plain
>English 'written' answers to questions, or does it require a tick to be
>placed in the little box provided alongside each of 5 possible answers
>offered to candidates by the examiner, ie., the box which is deemed by the
>candidate to be alongside the most correct of the 5 answers?
>

Ah Punchinello,

63 words in a paragraph length sentence! [And what does it really say
for all that?] Who could survive reading one of your essay tests
except a civil servant?

I could only imagine one thing worse: a test with each question and 5
checkbox answers all written in this style. ;-)

73's
Richard Clark, KB7QHC

1055. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 20:29:27 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ctd3rugei0fd3tng8pd3vhg2gfea33qqme@4ax.com>
Source record: 132741

On Fri, 18 Oct 2002 23:07:32 GMT, W.G Ewald <wgewald@att.net> wrote:

> Will Chip step up to prove you wrong this time?

Hi OM,

The only challenge I put up was for the past (and defeated) fractal
Champion be applied to this "optimization." That way there was no
doubt about the pedigree - nor the outcome.

One might suspect such closely guarded details of being jimmied into a
favorable light, but not here. Even the most basic announcement of
pass/fail carries embarrassing admissions that need no figures. :-)

Conundrum:
Optimization succeeds - which in one fell swoop destroys
the claim that fractals are the most optimal form;

Optimization fails - which in one fell swoop destroys
the claim that fractals are the most optimal; and destroys the
claim that optimization works (it could't deduce the 6 triumphant
challengers which felled the fractal!).

To answer your question: Don't anyone bate their breath in
anticipation of results from this simple challenge. ;-)

Besides, its hard on your sides when you laugh....

73's
Richard Clark, KB7QHC

1056. Re: wire for antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-19 21:50:15 UTC
From: splanky <splanky@splancus.net>
Message-ID: <rsks9.14651$qM2.4439@sccrnsc02>
Source record: 132742

Mangy fits my personality to a tee.

"'Doc" <w5lz@cwis.net> wrote in message news:3DB033EE.A7134290@cwis.net...
>
>
> The only problem I've found with using 'thhn' single
> wire for antennas is that the insulation (the clear part)
> starts to 'shed' after some time exposed to the sun. If
> you can live with a 'mangy' looking antenna, it shouldn't
> be a problem electrically.
> 'Doc

1057. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 00:07:26 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210191607.6b4306d@posting.google.com>
Source record: 132743

'Doc <w5lz@cwis.net> wrote in message news:<3DB0711C.263FC635@cwis.net>...
> Art,
snip
> you might check the back issues of QST, I think
> you will find several articles about stepper motors
> and their use in amateur radio. I can remember seeing
> several articles, but it's been a while. The same
> holds for the loop antennas, there have been a number
> of articles, you just need to find them.
snip

> a couple of box tops?
> 'Doc

Let me explain what provoked that comment. I came across
a stepper motor and a driver. Now I know they can be
controlled by a computor keyboard and I understand that
there are 'free ware' programs for them.
As a ham who likes messing with antennas I assumed that
there would be plenty of articles that discussed these
motors. What came to mind was benign things as operating
a tuner at the antenna using step motors,automatic antenna
tuners that recorded motor settings for frequency change,
a loop antenna controlled by a stepper motor according
to frequency use e.t.c.
I hunted thru 20 years worth of Q.S.T. since these things
are so basic to ham radio.I found very little, so
obviously what I think is of interest is not what the
readership wants. I must admit that I opened each
Q.S.T. at it's center and then flipped back to the front
thus I did not flip thru every page.
I am not computor literate so If anybody can point to such
an article that will allow me to make a automatic
remote tuner using purchased computor parts e.t.c.
that adjusts with frequency change I would be in
debt to them.
Is putting a tuner at the tower top an old wives tale?
Art

1058. Re: HF6V feedpoint (ground side)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 01:21:23 UTC
From: vswrref@hotmail.com
Message-ID: <3db20478.952135@national-news.stargate.net>
Source record: 132744

Jim,

Thanks for the info. I figured it wouldn't make much of a difference,
but it doesn't hurt to check. What's funny is I posted this then just
remembered a buddy of mine had one up a few years back and I didn't
ask him. I sent him an e-mail later and he confirmed what I
suspected. Thanks again!

Jeff

On 19 Oct 2002 04:44:48 -0700, K4SQR@juno.com (Jim) wrote:

>Jeff;
>
>The described sequence is fine and does not matter electrically.
>Just be sure to install as many radials (up to 60) as possible for
>good low angle DX work.
>
>Good luck,
>Jim, K4SQR
>
>vswrref@hotmail.com (Jeff Y.) wrote in message
news:<3db0aecb.1016727@national-news.stargate.net>...
>> Hi all!
>>
>> I'm about ready to mount my HF6V vertical and after reading the
>> directions, I'm looking for somebody who's had some experience with
>> this antenna since I'm trying to determine which items to put in order
>> on the ground mounting screw. Should the Q-coil go on first, then the
>> line from the radials then the briaded side of the coax? Is another
>> order better or does it matter at all? My view is since it's ground,
>> it shouldn't make much of a difference, but looking for s second
>> opinion.
>>
>>
>> Jeff

1059. Re: HF6V feedpoint (ground side)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 01:21:57 UTC
From: vswrref@hotmail.com
Message-ID: <3db20529.1129684@national-news.stargate.net>
Source record: 132745

Will do. Already taken care of.

Jeff

On Sat, 19 Oct 2002 10:25:58 -0400, NickyWK345@nick-at-nite.net wrote:

>There is a God, I would like to see what happens when YOU mount your
>antenna. Exactly what pleasure does one derive from that? You do the
>mounting as "I" will push a few hundred watts through it. That should
>brighten your day.
>
>Seriously Jeff, check the assembly instructions.
>
>"Jeff Y." wrote:
>
>> Hi all!
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>> I'm about ready to mount my HF6V vertical and after reading the
>> directions, I'm looking for somebody who's had some experience with
>> this antenna since I'm trying to determine which items to put in order
>> on the ground mounting screw. Should the Q-coil go on first, then the
>> line from the radials then the briaded side of the coax? Is another
>> order better or does it matter at all? My view is since it's ground,
>> it shouldn't make much of a difference, but looking for s second
>> opinion.
>>
>> Jeff
>>
>>
>

1060. Force 12 EF-410 / EF-510

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 01:37:48 UTC
From: Charley Schwartz <charley@net1plus.com>
Message-ID: <3DB208EB.3DF06E16@net1plus.com>
Source record: 132746

I would like to find the element positions on the boom of these antennas. I am working on some side mounting ideas for installing these on the side of some Rohn 45 and want to determine how much rotation I will have with a standard rotor off the side of the tower (not a ring rotor).

Any information would be appreciated.

Charley W1TE

1061. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 01:53:42 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <3DB20CBF.1090909@adelphia.net>
Source record: 132747

Art Unwin KB9MZ wrote:

> Let me explain what provoked that comment. I came across
> a stepper motor and a driver. Now I know they can be
> controlled by a computor keyboard and I understand that
> there are 'free ware' programs for them.
> As a ham who likes messing with antennas I assumed that
> there would be plenty of articles that discussed these
> motors. What came to mind was benign things as operating
> a tuner at the antenna using step motors,automatic antenna
> tuners that recorded motor settings for frequency change,
> a loop antenna controlled by a stepper motor according
> to frequency use e.t.c.
> I hunted thru 20 years worth of Q.S.T. since these things
> are so basic to ham radio.I found very little, so
> obviously what I think is of interest is not what the
> readership wants. I must admit that I opened each
> Q.S.T. at it's center and then flipped back to the front
> thus I did not flip thru every page.
> I am not computor literate so If anybody can point to such
> an article that will allow me to make a automatic
> remote tuner using purchased computor parts e.t.c.
> that adjusts with frequency change I would be in
> debt to them.
> Is putting a tuner at the tower top an old wives tale?

Hmm, Interesting, Art. I was thinking of a stepper motor setup for my magloop. In my other hobby, amateur astronomy, we often use a stepper motor setup to point our scopes where we want them.

Seems like a not-too-difficult task to make an autotuner in similar fashion.

I share your surprise that this isn't more common.

- Mike KB3EIA -

1062. Re: Tower base bolt corrosion prevention ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 03:05:04 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3db222e7_2@news1.prserv.net>
Source record: 132748

Oh, man, you missed your chance. The way to have done that is to coat the bolts before pouring the cement, since metal inside cured cement is "protected" as the water is bound and little oxygen is present. Otherwise bare rebar wouldn't survive. In your case, the best approach is to remove a small amount of cement around the bolts, give the bolts a good coat of high quality paint as far down as possible, and backfill the surround with hydraulic mortar (doesn't shrink) or good epoxy. As much of the bolt as possible needs to have a good coat of enamel to keep the oxygen away from the surface. Then, go look at the way commercial self-supporting poles are mounted to their bases. They leave an air space under the plate by mounting the tower between nuts, rather than hard against the cement. This allows inspection and preventative maintenance, since nothing will be a permanent cure. On the other hand, if you can keep the area around the bolts dry with proper drainage, it will take a while for 1" bolts to rust through.

--
Crazy George
Remove NO and SPAM from return address
AA6QN <aa6qn@excite.com> wrote in message
news:3DB179B8.E8584B93@excite.com...
> Not sure if this is the right forum for this? Here goes, I am in the
> process of rebuilding a self supporting tower to replace an older fixed
> guyed tower. The concrete foundation was layed several years ago that
> made use of 1 inch dia high tension J-Bolts. I noticed that there was
> corrosion right at the cement level on the bolts. I know rust never
> sleeps :-(
>
> I am having a adapter plate made for the replacement tower but wanted to
> perform some kind of corrosion prevention on those bolts prior to
> setting the plate in place. especially at the point where the bolt
> leaves the concrete.
>
> I was thinking about the old sailor method of using grease between the
> adapter plate and concrete but did not want to trap moisture. Was also
> looking a LPS compounds the dry to a hard surface.
>
> Construtive idea's are welcome. Tower safety starts at the beginning.
>
> Best Regards, John
>

1063. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 03:15:45 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB21FE1.9C9CFD65@cwis.net>
Source record: 132749

"W.G",
When you boil all of that down, all that it says is
that his program uses a secret algorithym (or is that
an 'Al Gore-ism) and that he thinks it works well. It
is an opinion, not a proven fact. (You know, about like
antenna manufacturor's gain claims...)
I very much doubt if ol'Frac cares one way or the other
about what I think or say, so I have a feeling that he will
not 'step up' to prove my opinion wrong. To do that he
would have to disclose what his secret 'Al Gore-ism' is,
and I don't plan to 'bate' my breath over that either...
'Doc

1064. Re: Tower base bolt corrosion prevention ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 12:42:54 UTC
From: richardharrison@webtv.net
Message-ID: <14581-3DB2A4CE-242@storefull-2313.public.lawson.webtv.net>
Source record: 132782

Crazy George wrote:
"The way to have done that is to coat the bolts before pouring the cement since metal is "protected" as the water is bound and little oxygen is present.."

I agree. Water doesn`t combine with iron to create rust. Oxygen combines with iron to create rust. Once all the free oxygen has combined, rusting stops unless additional oxygen appears.

I also have left an air space under the tower leg pads in a self supporting tower as George suggested, by putting the plate between nuts. In fact I`ve done that many times. But my purpose was to provide a final adjustment to remove any slight inclination from the vertical. In some cases, I grouted around the air space gap at the end of the job, but everything was galvanized. Air space would have been better.

Best regards, Richard Harrison, KB5WZI

1065. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 13:53:15 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <I7SyPZk=AUv7NYZPRuMwsTAXIg1K@4ax.com>
Source record: 132750

aunwin@fgi.net (Art Unwin KB9MZ) wrote:

>I am not computor literate so If anybody can point to such
>an article that will allow me to make a automatic
>remote tuner using purchased computor parts e.t.c.
>that adjusts with frequency change I would be in
>debt to them.

Art, the 3-issue plans in this year's QST for the big homebrew desktop antenna tuner utilizes stepper motors to adjust the capacitors and inductor. It would seem it could be adapted to tower-top use.

Bob
k5qwg
>Is putting a tuner at the tower top an old wives tale?
>Art

1066. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 16:14:23 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <zDAs9.832$z5.579889@newssvr28.news.prodigy.com>
Source record: 132751

Art, what kind of precision do you need for your tuner? The autotuner portion of my minibeam uses a remotely controlled L-network that puts some capacitors and coils at the antenna, and switches inductance and capacitance with relays in a binary sequence...in other words I have coils of .2, .4, .8 and 1.6 uH and caps of 50, 100, 200 and 400 pf. These can be switched in combination to give any combo of L from .2 to 3.0 in .2 uH steps, and C from 50 to 750 pf in 50 pf steps. The relays can be controlled much more quickly than a stepper, and don't need periodic calibration.

It is similar in some ways to the SGC and LDG autotuners, except that I remove all electronics from the antenna except the coils, caps and relays. I did this because of the problems I had with RF near microcontrollers, susceptibility of lightning damage and the inaccesibility of the electronics if damage does occur. The software can also do more when it's running on a powerful computer w/lots of memory as opposed to a PIC chip.

In the shack I have a controller which selects the relays, and interfaces a directional coupler through an A/D converter to input SWR. The interface communicates to the computer over RS-232, and my software does the rest.

This works fine for antenna matching of reasonable length antennas. I limit my tuner to L-network config because I am matching an element that is electrically short at all frequencies...and is limited to 14-30 MHz. For a wider matching range you would need a Pi-network, or the ability to move the shunt elements to either the input or output side.

For the reflector tuning in my minibeam I use a combo of relays and a stepper, because I need very fine tuning steps of .01 uH or so...which can't be done with switched coils.

When I finish my minibeam article it will have details of all this. I may also write a separate article on an expanded remote tuner that is more general in nature and not limited to use with an electricslly short antenna. If response to the articles is good, I will make kits available for folks who want to duplicate them without doing all the work.

73
--
Larry N8LP

"Bob Miller" <bxmillerSpamNot@texas.net> wrote in message
news:I7SyPZk=AUv7NYZPRuMwsTAXIg1K@4ax.com...
aunwin@fgi.net (Art Unwin KB9MZ) wrote:

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tuner utilizes stepper motors to adjust the capacitors and inductor. It
would
seem it could be adapted to tower-top use.

Bob
k5qwg
>Is putting a tuner at the tower top an old wives tale?
>Art

1067. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 20:02:25 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210201202.25b77936@posting.google.com>
Source record: 132752

Bob Miller <bxmillerSpamNot@texas.net> wrote in message
news:<I7SyPZk=AUv7NYZPRuMwsTAXIg1K@4ax.com>...
> aunwin@fgi.net (Art Unwin KB9MZ) wrote:
>
>
> >I am not computor literate so If anybody can point to such
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> >remote tuner using purchased computor parts e.t.c.
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> seem it could be adapted to tower-top use.
>
> Bob
> k5qwg
> >Is putting a tuner at the tower top an old wives tale?
> >Art

Bob, I saw that and thought that I was home and dry.
But then there was no offer of a circuit board for sale
and if I remember correctly the software was not
made available . I suppose eventually I will have to seek
and pay somebody to do it for me. Thanks for jogging my
memory for me, I think that such a board would be an
excellent accompnyment for loop antennas users.
If there was a follow up re the controller board
and software or another method please let me know
Thanks again
Art
aunwin@insightbb.kom (correct K)

1068. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 20:24:45 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB3110D.728D781B@cwis.net>
Source record: 132753

Art,
Nothing at all 'wrong' with putting your tuner
on top of the tower rather than next to the radio.
I can't give you a reference to a specific article
but it shouldn't be too difficult to 'interface' a
stepper motor function to a computer. Not being an
engineer, or a computer programer, the degree of
difficulty may be a lot more than I would care to
tackle, but for those who are either of the above
(at least to some extent), it really shouldn't be
that much of a 'much'. It also won't be simple.
HeathKit at one time made sort of a 'tuner' for
antennas. Basically just a large, two section,
variable capacitor that was remotely controled. I
think it wasn't much of a success because it was not
small, or light weight. A tuner at the feed point of
an antenna isn't an old wive's tale, it's just that
in a lot of circumstances it isn't very practical.
'Doc

1069. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 20:30:53 UTC
From: Scott Vanzandt <zandt@midsouth.rr.com>
Message-ID: <a946ruc8gkj787niavhgacqeivdlke65t7@4ax.com>
Source record: 132754

With commercial ready to go units in the $200 range, it is hard to
rationalize trying to design/build one now days. LDG makes the RT-11
Autotuner that is waterproof (water resistant) and remote mountable
and sells through www.amcominc.com for $209.

On Sun, 20 Oct 2002 15:24:45 -0500, 'Doc <w5lz@cwis.net> wrote:

>Art,
> Nothing at all 'wrong' with putting your tuner
>on top of the tower rather than next to the radio.
>I can't give you a reference to a specific article
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>that much of a 'much'. It also won't be simple.
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>an antenna isn't an old wive's tale, it's just that
>in a lot of circumstances it isn't very practical.
> 'Doc

1070. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 20:50:46 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB31726.B07A755A@ieee.org>
Source record: 132755

'Doc wrote:
> Nothing at all 'wrong' with putting your tuner
> on top of the tower rather than next to the radio.
> I can't give you a reference to a specific article
> but it shouldn't be too difficult to 'interface' a
> stepper motor function to a computer.

Something else to consider is a gear-head motor. I can't
remember who it was, but before I left Intel in AZ, I sent
a few gear-head motors to a ham on the West Coast for the
purpose of a remote tuner. The devices run on plus or minus
12 vdc and will drive a variable capacitor and/or a rotary
inductor. I obtained the motors for $2 each from a surplus
place in Phoenix (7th Ave. and I10). Last time I checked,
they still had some.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1071. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-20 22:48:19 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <ToGs9.881$z5.628908@newssvr28.news.prodigy.com>
Source record: 132756

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DB31726.B07A755A@ieee.org...
> 'Doc wrote:
> > Nothing at all 'wrong' with putting your tuner
> > on top of the tower rather than next to the radio.
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> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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There are a number of stepper controller boards available if you want to control a stepper through software. The least expensive I have tried is from Peter Norberg,
http://www.stepperboard.com/

His boards will control 2- unipolar or bipolar motors per board, depending on model, and have built in drivers for up to 1A per phase...start at about $40 and are available in kit or assembled. If you want TTL inputs or outputs to control relays, A/D converter inputs for analog, etc., you can buy more complex boards from a number of sources, but the price goes up considerably.

Most boards use simple ASCII commands, so you can test them with a terminal program, and most give sample control programs in C or VB with source code.

If you just want to run a motor forward/backward with switches...there is a controller chip available for about 5 bucks to do it...EDE1204. You would also need a driver chip like the L298, since the controller chip is TTL level output and thus limited in current. These are available from places like Jameco.

73

Larry N8LP

1072. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 00:06:01 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210201606.74240026@posting.google.com>
Source record: 132757

Larry, the three month article in Q.S.T provided the main essentials
as part of his homebrew tuner.
I would like to make various loop antennas for my self that would
cover all frequencies from 1.8 Mhz to 30 Mhz The controller for these
would recognise frequency reception and tune a capacitor
automatically. The capacitor would be the homebrew part which I
control with a stepper driver that emits EMI unfortunately.(Steppir
antennas do something like this but will not sell the controller
seperately)
Isoloop made a control for their loop the business has now been
abandoned.
This was not computor driven but had a chip in it that polled either
sound or SWR but only for 14 thru 30! It did use a stepper motor I
believe in the loop that did not generate EMI that generally plagues
steppers and ofcourse, without the need of a computor it was mobile
which is a much better aproach for many.
I would think that with the many loop antenna out there, homebrew or
other wise,such a controller will satisfy a need. I also believe that
what you are contemplating will satisfy a need also but for base
homebrew antennas,the difference being that that the capacitor would
move fairly fast and then backtrack slowly in SMALL steps, or for home
antennas preprogrammed positions.
Regards
Art

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news:<zDAs9.832$z5.579889@newssvr28.news.prodigy.com>...
> Art, what kind of precision do you need for your tuner? The autotuner
> portion of my minibeam uses a remotely controlled L-network that puts some
> capacitors and coils at the antenna, and switches inductance and capacitance
> with relays in a binary sequence...in other words I have coils of .2, .4, .8
> and 1.6 uH and caps of 50, 100, 200 and 400 pf. These can be switched in
> combination to give any combo of L from .2 to 3.0 in .2 uH steps, and C from
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> shunt elements to either the input or output side.
>
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> stepper, because I need very fine tuning steps of .01 uH or so...which can't
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> When I finish my minibeam article it will have details of all this. I may
> also write a separate article on an expanded remote tuner that is more
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> If response to the articles is good, I will make kits available for folks
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> seem it could be adapted to tower-top use.
>
> Bob
> k5qwg
> >Is putting a tuner at the tower top an old wives tale?
> >Art

1073. Re: HF6V feedpoint (ground side)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 00:35:50 UTC
From: rh3x@erols.com
Message-ID: <bui6ruc7b646b70f0k6rgan1ah1os8gp4n@4ax.com>
Source record: 132758

The order doesn't make any difference.

de Richard/N2JR

On Sat, 19 Oct 2002 01:08:15 GMT, vswrref@hotmail.com (Jeff Y.) wrote:

>Hi all!
>
>I'm about ready to mount my HF6V vertical and after reading the
>directions, I'm looking for somebody who's had some experience with
>this antenna since I'm trying to determine which items to put in order
>on the ground mounting screw. Should the Q-coil go on first, then the
>line from the radials then the briaded side of the coax? Is another
>order better or does it matter at all? My view is since it's ground,
>it shouldn't make much of a difference, but looking for s second
>opinion.
>
>
>Jeff
>
>
>

1074. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 01:18:32 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <IBIs9.904$z5.649397@newssvr28.news.prodigy.com>
Source record: 132759

Art,

The Isoloop system was manual tuning, which you can do with the 2 chips I mentioned. To have a system that automatically tunes requires quite a bit more sophistication, like what I do with the reflector in my Autobeam. You have to monitor SWR and report it to the software, then control the motor to minimize SWR. The software can be on a computer or a PIC chip. You need a stepper controller and an A/D converter at a minimum.

If that's all you're doing, you can probably skip the computer and make an analog servo system. If a capacitor is all you are controlling, you could create a bridge circuit that would control a servo motor and balance itself by nulling SWR. A standard servo will give you 180 degree rotation with about 1 degree accuracy.

Larry N8LP

"Art Unwin KB9MZ" <aunwin@fgi.net> wrote in message
news:c4becf19.0210201606.74240026@posting.google.com...
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news:<zDAs9.832$z5.579889@newssvr28.news.prodigy.com>...
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> > Bob
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> > >Art

1075. wanted: ar-40 mechanical manual

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 01:50:44 UTC
From: Mitch <w4oa@arrl.net>
Message-ID: <U3Js9.25467$Hj7.9918@rwcrnsc53>
Source record: 132760
Body handling: Inline uuencoded payload not displayed: Mitch, W4OA.vcf

hi... mitch here in mobile...

i just took my ar-40 down which had been holding
my 6m beam for ?? years... i need to rebuild it...

mfj has the regular manual as a pdf file on their site...
but no schematic for the controller or the mechanics
and schematic of the rotator itself...

a google search does not turn up any source of the
schematics or mechanical drawings...

any suggestions??

thanks
mitch, w4oa
w4oa@vibroplex.com

[Inline uuencoded payload not displayed: Mitch, W4OA.vcf]

1076. KLM 15M6 & 10M6 manuals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 01:52:38 UTC
From: Zoran Brlecic <WA7AA@attbi.com>
Message-ID: <3DB35D6B.5060509@attbi.com>
Source record: 132761
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Hi, folks.

I am still looking for the KLM 15M6 and 10M6 monobander manuals. I know there are quite a few out there who are still using them so, please, guys, do me a favor...
If you don't have time to scan or copy them, let me know and I'll arrange a FedEx pickup for you to send me the originals so I can copy them, then I'll send you the originals back. Or something. Name your price.

I'll even settle for only a diagram with measurements.

Thanks and 73 .... Zoran WA7AA

1077. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 04:21:38 UTC
From: aunwin@fgi.net
Message-ID: <c4becf19.0210202021.343e43bc@posting.google.com>
Source record: 132762

"Larry Phipps" <larry@telepostinc.com> wrote in message
news:<ToGs9.881$z5.628908@newssvr28.news.prodigy.com>...
> "CAM" <Cecil.A.Moore@ieee.org> wrote in message
> news:3DB31726.B07A755A@ieee.org...
> > 'Doc wrote:
> > > Nothing at all 'wrong' with putting your tuner
> > > on top of the tower rather than next to the radio.

snip

> > purpose of a remote tuner. The devices run on plus or minus
> > 12 vdc and will drive a variable capacitor and/or a rotary
> > inductor. I obtained the motors for $2 each from a surplus
> > place in Phoenix (7th Ave. and I10). Last time I checked,
> > they still had some.

Two dollars ??? motor with inbuilt gearing like Maxon ?

> > cheers, CAM http://www.qsl.net/w5dxp

snip

> His boards will control 2- unipolar or bipolar motors per board, depending
> on model, and have built in drivers for up to 1A per phase...start at about
> $40 and are available in kit or assembled. If you want TTL inputs or
> outputs to control relays, A/D converter inputs for analog, etc., you can
> buy more complex boards from a number of sources, but the price goes up
> considerably.

snip

What a great feed back I got from you guys, thanks a bunch.
The screwdriver controller seems a good aproach (price and time wise)
as does the qst article form. I have lots of driver boards which are
made for computor input plus motors (and a stamp form)but have no
software.
My capacitor for the loop antenna is now set for the normal
half turn of use with the other half of revolution having
a door knob capacitor added to extend the range and also
to allow the use of a additional high value doorknob to use for
160 meters, this I control using a P B circuit plus commercial driver.
Also found out that the QST author does have
boards available plus components for sale but still complex to build
but alas no program.
Since most experts on this forum point to the simplest all round
antenna
being a long dipole and tuner it would appear that Larry would have a

great niche for his auto antenna tuner.
Thanks again for all inputs.
Art
aunwin@insightbb.kom (correct the k)

1078. Re: Why use bare wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 04:30:25 UTC
From: Tom Nelson <nelsonca@stormnet.com>
Message-ID: <3DB382E1.5F2638A9@stormnet.com>
Source record: 132765

Has anyone ever tried transmitting the yellow and black plastic fence "wire" with the aluminum strands braided in? I have used it in receiving antennas and it has worked well. I am thinking of using it for a QRP portable dipole for 20. In my receiving antenna, I wrapped the coax copper around the poly "wire" 20-30 times after gooping it up with the stuff that electricians use (Nolox?) and sealed it in shrinktube. It has worked well and can be drawn TIGHT. The aluminum wire woven into the poly is pretty fine and has oxidized through in one instance where water running off the barn roof poured over it for a few years while it was being used for its intended purpose. It can be rolled up very easily and carries enough current to electrocute a rat!

Tom
KD6EVM

JLB wrote:

> I see no one has mentioned this reason for using insulated wire.
>
> What will the loss of the bare wire be in 2 or 3 years?
>
> By the way, I use bare aluminum electric fence wire, because it is
> cheap. You can buy a 1/4 mile roll at a farm supply store for under
> $20. When it goes bad or breaks, I just replace it. And the stuff is
> remarkably strong, a lot stronger than Aluminum clothes line. It is
> not as strong as hard copper, but comparable to soft copper.
>
> Jim
> N8EE

1079. HyGain 402BA help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 04:43:43 UTC
From: Bill Turini <hamshack@hamanuals.com>
Message-ID: <3DB385FF.3000604@hamanuals.com>
Source record: 132764

I was given a HyGain 402BA (40mtr 2 el beam) that had the boom broken, etc. I've got it all cleaned up and ready to re-assemble, but I'm not sure of the element length.

I have a copy of the original HyGain manual, the MFJ (402BAS) manual, and they both are different from the length of the elements when I received the antenna. 3 measurement. Which one do I go with?

Anyone have any comments, or a NEC file?

Thanks

Bill

--
Bill Turini KA4GAV
HAManuals
29926 SE 408th Street
Enumclaw, WA 98022-7761

1080. Re: Swan TB-2 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 04:44:45 UTC
From: thompson@mindspring.com
Message-ID: <ap00ff$i24$1@nntp9.atl.mindspring.net>
Source record: 132763

Kirk,

This is a 2 el beam for 10. 15, and 20 meters. I seem to remember the boom length is 8 feet. I had the 4 el version (TB-4H/TB-1000) and it was a good antenna. The weakness was in the boom to mast fixture. Be careful not to tighten the bolts too tight or the fixture splits (I have the TB-4 fixture with a split still in my junk box).

Be sure to get the antenna as high as possible and it will bring in plenty of DX (try for at least 45 or 50 feet).
73 Dave K4JRB
>
> Thanks,
> Kirk Mohror
> K7EKM

1081. Re: HF6V feedpoint (ground side)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 04:54:50 UTC
From: vswrref@hotmail.com
Message-ID: <3db3888b.7638953@national-news.stargate.net>
Source record: 132766

Thanks Richard!

Jeff

On Sun, 20 Oct 2002 20:35:50 -0400, rh3x@erols.com wrote:

>The order doesn't make any difference.
>
>de Richard/N2JR
>
>On Sat, 19 Oct 2002 01:08:15 GMT, vswrref@hotmail.com (Jeff Y.) wrote:
>
>>Hi all!
>>
>>I'm about ready to mount my HF6V vertical and after reading the
>>directions, I'm looking for somebody who's had some experience with
>>this antenna since I'm trying to determine which items to put in order
>>on the ground mounting screw. Should the Q-coil go on first, then the
>>line from the radials then the briaded side of the coax? Is another
>>order better or does it matter at all? My view is since it's ground,
>>it shouldn't make much of a difference, but looking for s second
>>opinion.
>>
>>
>>Jeff
>>
>>
>>
>

1082. max. coax length - can I do this

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 05:51:49 UTC
From: OE1MWW <no.mail@please.com>
Message-ID: <r157ru46qkkj6rktcq3i4j2omidgq90oqf@4ax.com>
Source record: 132767

Hi all,

friend of mine is licensed now. He lives in a 9 floor high apartment building - he shack is in the first floor. There are some cable ducts, but this will end up in around 25m (75ft) vertical cable length.

Can a coax, like the RG-213, be mounted in such a length without damaging it due to the own weight - and stretching it.

Any comments are welcome

73's de Wolfgang OE1MWW

1083. Re: max. coax length - can I do this

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 10:52:28 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3db3dc6d$0$6018$ba620e4c@news.skynet.be>
Source record: 132768

If he is afraid to hang the RG213 cable from the top, your friend can also strap the coax every meter to a strong rope.

73 de Jacques - ON5MJ

1084. Re: max. coax length - can I do this

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 12:50:20 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DB3F730.900820AD@tampabay.rr.com>
Source record: 132769

the main problem isnt can RG213 hold up under that long of a run but can you get a signal out RG213 is pretty lossy at anything over 30mhz so if he is planning on running HF only he will be fine if he plans on running VHF or higher he would be better off getting a better grade of coax like 9913 or LMR400

OE1MWW wrote:

> Hi all,
>
> friend of mine is licensed now. He lives in a 9 floor high apartment
> building - he shack is in the first floor. There are some cable ducts,
> but this will end up in around 25m (75ft) vertical cable length.
>
> Can a coax, like the RG-213, be mounted in such a length without
> damaging it due to the own weight - and stretching it.
>
> Any comments are welcome
>
> 73's de Wolfgang OE1MWW

1085. Antenna Rope

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 12:53:18 UTC
From: Jim Widener <jwide@tricon.net>
Message-ID: <5LSs9.6560$46.487@fe01>
Source record: 132770

I need to shoot some line over a couple of 90' trees to hang a loop antenna. This weekend I was in a surplus store and saw a 1000' spool of "Paraline" @ 6 cents per foot. I can't find out much about this product except for a reference to it on the net that refers to it as "Nylon Draw Cord". It is seven strands of string enclosed in a woven nylon sheath about 1/4" diameter. Does anyone have experience with this product? (or have any other recommendations?). Looking for low abrasion and high strength. Jim, W4VJ

1086. Re: max. coax length - can I do this

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 13:14:15 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <HP2zPfn8BVxk0P3sdhVuZk3xjKQn@4ax.com>
Source record: 132771

"ON5MJ" <on5mjREMOVE@skynet.be> wrote:

>If he is afraid to hang the RG213 cable from the top, your friend can also
>strap the coax every meter to a strong rope.
>
>73 de Jacques - ON5MJ
>

I'd worry about the coax pulling right out of the coax connection. Might be a good idea to tie a piece of rope to it close to the connector, so the connector solder isn's supporting the whole weight.

Bob
k5qwg

1087. Re: Antenna Rope

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 13:42:53 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB4045D.52C7EDDC@cwis.net>
Source record: 132772

Jim,
Sounds like 'parachute cord', if so, that's not
a bad price at all.
'Doc

1088. Re: max. coax length - can I do this

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 13:47:51 UTC
From: OE1MWW <no.mail@please.com>
Message-ID: <ls08ru8panfo0u4itgunsnajagaqnl8q5j@4ax.com>
Source record: 132773

Hi all,
thanks for the responses. Well, my question actually was: can the coax mechanicaly handle such a length if its hung free in a cable duct. There will be no chances to open the duct inbetween. The cabling will be done more or less 'under cover' from the roof (9th floor) to the 1st floor. My concern is the weight of the cable and if it will be damaged due to the own weight.

Remark: I installed my RG-214 cable in a 4 floor building. I was in the shack, another ham on the roof. He screamed - don' pull - I screamed into the hand-held - don't feed with force - Finally, the coax shot out of the 2 inch vertical cable duct with immense speed, like magic. It was no ones fault, as we finally realized - out of the own weight of the cable - it shot down the cable duct.

If its longer - will it stretch or even break ?

73's Wolfgang OE1MWW

1089. Re: Antenna Rope

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 14:51:41 UTC
From: KAZeringue <kazeringue@aol.com>
Message-ID: <3DB414A1.8090509@aol.com>
Source record: 132775

I have been using a similar cord for about three years now, since the local walmart quit carrying tarred nylon "trot line" in the fishing department. The cord I use is about 3/32 thick, similar to "sash cord", but with an olive green jacket.

I pulled down(last month) three wire antennas that had been up for between 1 and three years.

The cord on all three was somewhat less flexible than it had been when new, but seems just fine otherwise. The outer sheath is not showing any signs of rot(yet) but the lines don't get much exposure to the sun either, cause they are in dense cover. A single strand can still hold my weight (175 lbs, bouncing). It appears to have lost its stretch. I tested a piece of the oldest cord.

I plan on re-using the old cord when I put my antennas back up after leaf fall. The jacket is still smooth, and it slips over the branches easily enough. (I like the tarred nylon better, but I can't find it anymore, and it doesn't slip as well over tree branches.)

I bought this cord from Cabelas(gc-51-1527) for 35 bucks per 1000 foot spool. That works out to around 3.5 cents a foot. I ordered a couple of other things at the same time, so the shipping charges were mitigated. Its olive green color blends in really well, its hard to see up in the foliage.

But 6 cents a foot isn't too bad. I'd guess you can easily expect to get at least five years out of the cord. I usually have the branches break before the cord does anyway. It does tend to stretch if you are pulling a heavy coax.

(On my 50 foot support, I used two lines. I attached a stainless 2 inch o-ring, and used that line to pull up another line(passed through the o-ring). Then I pull the antenna/coax up using the second line--the o-ring is smoother than a tree branch, and doesn't snag like a pulley can with small line. Its also less weight being drawn(sawed?) across the branch. Keeping the two lines from snagging on one another is the drawback)

73,
W4KAZ

1090. Noise Level

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 14:52:10 UTC
From: Bill Ogden <ogden@us.ibm.com>
Message-ID: <3DB4149A.619498FE@us.ibm.com>
Source record: 132774

Probably a stupid question, but I am a little slow:

I simetimes chase stations on 10 meter CW that are right at the noise level. This led me to wonder what is the "noise level" that I hear. Is it internal receiver noise or the "ether noise" or something else? (I am using a TenTec Omni 6+, and I have no reason to suspect it is not aligned and operating correctly. There is no unusual local noise that I know about.)

The reason for my wondering is this: I plan to replace my tower soon and will need another coax run. The total coax run (to my quad, which seems to be fairly well matched to the line) will be about 175 feet. I normally use RG-213. If I change to LMR-400 (or something similar) will this improve my received "almost noise level" signals on 10m? Or will it simply raise the total level of the signals+noise without improving the ratio of the signals?

Bill
W2WO

1091. MFJ 33-ft telescoping fiberglass pushup mast

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 16:15:52 UTC
From: jder8745@aol.com
Message-ID: <20021021121552.10680.00002635@mb-fv.aol.com>
Source record: 132776

Howdy,

I just bought one and I am satisfied with it. You gotta make those sections tight when you erect it if there's any wind because I didn't and it retracted when I didn't want it to.

73 de Jack, K9CUN

1092. Re: MFJ 33-ft telescoping fiberglass pushup mast

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 16:26:16 UTC
From: Pappy@USA.net
Message-ID: <3DB42AA8.89A09CC@USA.net>
Source record: 132777

What type antenna do you have on the mast?

JDer8745 wrote:

> Howdy,
>
> I just bought one and I am satisfied with it. You gotta make those sections
> tight when you erect it if there's any wind because I didn't and it retracted
> when I didn't want it to.
>
> 73 de Jack, K9CUN

1093. Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 16:30:31 UTC
From: Pappy@USA.net
Message-ID: <3DB42BA7.F17BC414@USA.net>
Source record: 132778

I am going to purchase a new vertical HF antenna, my problem is which one:

MFJ-1798 or GAP Titan DX

Has any one here had any experience with either of these antennas?

Or, what vertical have you had a pleasant or unpleasant experience with.

I chose these two from a host of others brands and models.

Your assistance would be appreciated.

73's

1094. Re: Noise Level

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 16:33:54 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <s498rugn8c3ok6r6ai9mq9bmr9tko0297o@4ax.com>
Source record: 132783

On Mon, 21 Oct 2002 10:52:10 -0400, Bill Ogden <ogden@us.ibm.com>
wrote:

|Probably a stupid question, but I am a little slow:

Not at all.
|
|I simetimes chase stations on 10 meter CW that are right at the noise
|level. This led me to wonder what is the "noise level" that I hear. Is
|it internal receiver noise or the "ether noise" or something else? (I
|am using a TenTec Omni 6+, and I have no reason to suspect it is not
|aligned and operating correctly. There is no unusual local noise that I
|know about.)

Ten meters is around the range where receiver noise figure can come
into play. On the lower bands, atmospheric noise dominates over
internally generated noise. On 10, there can be times when the band
noise is low enough that a receiver designed for maximum overload
performance may have a noise figure high enough to degrade received
SNR. The better radios, and I would guess your Omni, have preamps
that can be inserted to improve the nf. Therefore, I doubt that the
receiver is the limiting case.

|
|The reason for my wondering is this: I plan to replace my tower soon and
|will need another coax run. The total coax run (to my quad, which seems
|to be fairly well matched to the line) will be about 175 feet. I
|normally use RG-213. If I change to LMR-400 (or something similar) will
|this improve my received "almost noise level" signals on 10m? Or will
|it simply raise the total level of the signals+noise without improving
|the ratio of the signals?

The difference in matched attenuation between 175' of RG-213 and
LMR-400 is about 0.7 dB. This difference is "in the noise" (sorry, I
couldn't help myself <g>). If the match is less good, then the lower
loss line might offer some system improvement, but more on the
transmit side.

A simple (but not conclusive) test would be to point your antenna in
the direction of lowest band noise and then switch to a good
termination (dummy load) and see what happens to the receiver noise. A
reduction in noise on the dummy load indicates that external noise is
still the limit.

No change indicates that either the nf could stand improvement or that
you are operating on the downside of the sunspot cycle, where a 0 dB

nf isn't going to help.

Wes N7WS

1095. Re: Noise Level

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 16:57:20 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <z_GdnZRTMvperCmgXTWcpw@comcast.com>
Source record: 132784

Bill,

Noise level could either refer to noise picked up by the antenna, or receiver generated noise as defined by its noise figure. Unless you live in the boonies, the latter is of no consequence below 144 MHz; probably never at 10 meters.

RG213 is fairly ancient, and rerlatively high loss at 28 MHz. With 175 feet of feedline, and 100W rig, you would get something like 60W into the antenna. On receive, both signal and noise will be attenuated by the same amount. LMR400 has a loss of slightly more than 1/2 that of RG213. In fact, the skinny LMR240 is only very slightly worse than the 213.

LMR400 is too stiff to run around the rotator; so, you would need a short piece of more flexible cable to extend below the rotator. Newer versions of Belden 9913 are just about as good as the LMR400, and may be cheaper. Do not use the original 9913 outside. If water gets in one end, it will come out the other. A friend of mine found that out the hard way when he discovered a large puddle of water under his rig.

BTW, if you use cheap 259 connectors with low loss coax, you may have to remove some strands of the center conductor to get it ti fit the connector pin. Better to buy the right connector.

You can find all the cable specs, and prices at www.cablexperts.com .

Tam/WB2TT
"Bill Ogden" <ogden@us.ibm.com> wrote in message
news:3DB4149A.619498FE@us.ibm.com...
> Probably a stupid question, but I am a little slow:
>
> I simetimes chase stations on 10 meter CW that are right at the noise
> level. This led me to wonder what is the "noise level" that I hear. Is
> it internal receiver noise or the "ether noise" or something else? (I
> am using a TenTec Omni 6+, and I have no reason to suspect it is not
> aligned and operating correctly. There is no unusual local noise that I
> know about.)
>
> The reason for my wondering is this: I plan to replace my tower soon and
> will need another coax run. The total coax run (to my quad, which seems
> to be fairly well matched to the line) will be about 175 feet. I
> normally use RG-213. If I change to LMR-400 (or something similar) will
> this improve my received "almost noise level" signals on 10m? Or will
> it simply raise the total level of the signals+noise without improving
> the ratio of the signals?
>

> Bill
> W2WO
>

1096. Re: max. coax length - can I do this

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 17:07:02 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Q0adnU-JkJiVqSmgXTWc3w@comcast.com>
Source record: 132785

Wolfgang,

You might want to check the weight of RG213 relative to more modern cables.
Seems to me the lighter cable would put less strain on itself.

Tam/WB2TT
"OE1MWW" <no.mail@please.com> wrote in message
news:r157ru46qkkj6rktcq3i4j2omidgq90oqf@4ax.com...
> Hi all,
>
> friend of mine is licensed now. He lives in a 9 floor high apartment
> building - he shack is in the first floor. There are some cable ducts,
> but this will end up in around 25m (75ft) vertical cable length.
>
> Can a coax, like the RG-213, be mounted in such a length without
> damaging it due to the own weight - and stretching it.
>
> Any comments are welcome
>
> 73's de Wolfgang OE1MWW

1097. Re: MFJ 33-ft telescoping fiberglass pushup mast

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 17:08:53 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <FwWs9.193649$S32.12872572@news2.west.cox.net>
Source record: 132786

Have heard from users that the MFJ is a lightweight mast -- be careful of
the load.

For a heavy weight by DK9SQ -- tested here in San Diego see URL:
http://www.bright.net/~kanga/kanga/dk9sq.htm
Used here for verticals, inverted vees, dipoles during Field Day. A winner

For masts of this type -- there maybe some carbon content -- so keep wires
away from the mast by a few inches when making verticals.

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
<Pappy@USA.net> wrote in message news:3DB42AA8.89A09CC@USA.net...
> What type antenna do you have on the mast?
>
> JDer8745 wrote:
>
> > Howdy,
> >
> > I just bought one and I am satisfied with it. You gotta make those
sections
> > tight when you erect it if there's any wind because I didn't and it
retracted
> > when I didn't want it to.
> >
> > 73 de Jack, K9CUN
>

1098. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 17:24:02 UTC
From: Larry Bratcher <lbratche@swbell.net>
Message-ID: <SKWs9.6$GQ6.3964984@newssvr11.news.prodigy.com>
Source record: 132787

The best vertical out there is the Butternut HF6V or HF9V. Check out the
reviews at www.Eham.com
before you buy.

<Pappy@USA.net> wrote in message news:3DB42BA7.F17BC414@USA.net...
> I am going to purchase a new vertical HF antenna, my problem is which
> one:
>
> MFJ-1798 or GAP Titan DX
>
> Has any one here had any experience with either of these antennas?
>
> Or, what vertical have you had a pleasant or unpleasant experience with.
>
> I chose these two from a host of others brands and models.
>
> Your assistance would be appreciated.
>
> 73's
>

1099. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 18:00:39 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB440C7.113B0660@ieee.org>
Source record: 132788

Art Unwin KB9MZ wrote:
>
> > "CAM" <Cecil.A.Moore@ieee.org> wrote in message
> > > purpose of a remote tuner. The devices run on plus or minus
> > > 12 vdc and will drive a variable capacitor and/or a rotary
> > > inductor. I obtained the motors for $2 each from a surplus
> > > place in Phoenix (7th Ave. and I10). Last time I checked,
> > > they still had some.
>
> Two dollars ??? motor with inbuilt gearing like Maxon ?

They are 24vdc gear head motors made by Barber-Colman and they
work well at 12vdc with reduced torque. Last time I was in Phoenix
they were still sitting there priced at $2 each.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1100. Re: Noise Level

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 18:46:21 UTC
From: Bill Ogden <ogden@us.ibm.com>
Message-ID: <3DB44B7D.4E10F937@us.ibm.com>
Source record: 132789

Thank you both for the comments. As I understand it, better coax will probably not help the "noise level" signals on 10 meters. It would get more power to the antenna, but this is not such a significant concern for me. "If I can hear them, I can usually work them." (If not, I turn on the linear.)

The RG-213 is attractive because it is so durable and forgiving of flexing, bending, water, etc. Nevertheless, I may go for the LM400 for the largest part of the cable run. I hesitate to put more junctions in the line; there are already too many with a coax switch (at the antenna), lightning protection unit, and another coax switch at the rig. Also, I *hate* installing PL259 connectors --- I just am not very good at getting a nice, even connection to the braid.

Bill
W2WO

1101. Re: Question: Bonding unlike metals for antenna connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 19:21:44 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DB453DB.937EC41@bellatlantic.net>
Source record: 132790

Kanberi wrote:
>
> I have 14 gauge stranded copper that I want to attached to
> a skinny rod (I think its copper... its one of those ready made
> outfits for making dipoles with a SO-239 and two rods.
> HQ-1 I think)
>
> I don't want to solder it but just clamp it. Is it OK to clamp it
> with one of those buss bars used for electrical work?
> I think its made out of aluminum.
> Will it be a dissimilar metal problem and corrode?
>
> What kind of lacquer is good to coat this connection outdoors?

If you have to "mix" dissimilar metals, use stainless steel
between them. For example, I use a brass screw soldered into
the center pin on the S0-238 for my gamma match. The screw
passes thru a hole in the flattened end of aluminum tube.
I drill an oversize hole, and use stainless washers with either
brass or stainless nuts on each side of the hole, to hold the
aluminum tube to the brass screw. The aluminum is "sandwiched"
between the stainless washers.

If you mix aluminum and brass directly, the aluminum begins
to turn into a white powder and eventually fails.
tube

1102. Re: Noise Level

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 19:34:32 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210211134.59786424@posting.google.com>
Source record: 132792

Bill Ogden <ogden@us.ibm.com> wrote in message news:<3DB4149A.619498FE@us.ibm.com>...
> Probably a stupid question, but I am a little slow:
>
> I simetimes chase stations on 10 meter CW that are right at the noise
> level. This led me to wonder what is the "noise level" that I hear. Is
> it internal receiver noise or the "ether noise" or something else? (I
> am using a TenTec Omni 6+, and I have no reason to suspect it is not
> aligned and operating correctly. There is no unusual local noise that I
> know about.)
>
> The reason for my wondering is this: I plan to replace my tower soon and
> will need another coax run. The total coax run (to my quad, which seems
> to be fairly well matched to the line) will be about 175 feet. I
> normally use RG-213. If I change to LMR-400 (or something similar) will
> this improve my received "almost noise level" signals on 10m? Or will
> it simply raise the total level of the signals+noise without improving
> the ratio of the signals?
>
> Bill
> W2WO

There is a simple test you can do.

Tune your receiver to your favorite frequency on 10 M. Note the noise level. Unplug the coax, or switch to a dummy load.

If the noise level drops, most of the noise is coming from outside your receiver. If it stays the same or drops just a little then your receiver is contributing most of it.

In general, most modern receivers/transceivers are quieter than they need to be, as the external (atmospheric) noise is much stronger on the HF bands than the receiver noise. Ten meters is an interesting band, however, as there can be times when it is very quiet.

I would think that RG213 would be fine on 10 meters, but if you can afford it get the lower loss coax. It certainly won't hurt.

Jim
N8EE

1103. Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 19:48:10 UTC
From: lc <larryc@northwest.com>
Message-ID: <3DB459FA.DED68710@northwest.com>
Source record: 132791

Experiences using full-size quater wave vertical (with radials) would be appreciated. I'm building one for 40M. Base would be evelated about 10'

LArryC, N3CCW, CN85

--
Welcome to Oregon - "The Food Stamp State"

1104. Re: DK9SQ MAST/LOOP

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 19:59:04 UTC
From: Frank Valdor <frank_nospam@valdor.de>
Message-ID: <5tm8ruobtpcf9vp8i6hoc0oesln3m4muqg@4ax.com>
Source record: 132793

On 18 Oct 2002 05:27:43 GMT, ardujenski@aol.com (ARDUJENSKI) wrote:

>I am interested in hearing from those that have used the DK9SQ mast/loop.
>Comments on overall perormance including reception and approximate rejection
>off the ends. Do you recommend for portable DX work?
>
>Alan KB7MBI in Woodinville, WA

Regarding the mast I can highly recommend it. I used it on several
occasions while on holiday (EA6 and EA8). Used a Doublet antenna with
the mast. It is very stable although very light weight.

73,
Frank
DH5JG
KC8RNL

1105. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 20:42:40 UTC
From: Prozmaw <prozmaw@aol.com>
Message-ID: <ap1os0lsr1@news.netmar.com>
Source record: 132623

http://www.fractenna.com/FRAGO%20Brochure.pdf

----- Posted via NewsOne.Net: Free (anonymous) Usenet News via the Web -----
http://newsone.net/ -- Free reading and anonymous posting to 60,000+ groups
NewsOne.Net prohibits users from posting spam. If this or other posts
made through NewsOne.Net violate posting guidelines, email abuse@newsone.net

1106. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 21:01:18 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <HeKdnWTh2uNv9ymgXTWc3g@comcast.com>
Source record: 132794

Larry,

Now this is contrary to all theory, but this is what my experience is:

Had a full 1/4 wave 40 meter vertical hanging from a 60 foot tree branch, 4 radials, feedpoint about 20 ft. Also a conventional 40m inverted V at the same height.

Made comparisons with a group of people in western NY, about 300 miles, and group in Wisconsin - about 1000 miles away. People with verticals thought my vertical was better, people who were horizontally polarized thought the inverted V was better. This was about 10 years ago, but I don't recall any dramatic difference in received signal strength between the two.

Tam/WB2TT
"lc" <larryc@northwest.com> wrote in message
news:3DB459FA.DED68710@northwest.com...
> Experiences using full-size quater wave vertical (with radials) would be
> appreciated. I'm building one for 40M. Base would be evelated about 10'
>
> LArryC, N3CCW, CN85
>
> --
> Welcome to Oregon - "The Food Stamp State"
>
>

1107. Re: Noise Level

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 21:01:43 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <ap1pv1$dv6@r02n01.cac.psu.edu>
Source record: 132795

Hi Bill:

I would suggest that you look at Davis RF "bury-flex". It's a LM-400 clone that has the advantage of a stranded center conductor. Also it costs less.
As for the PL-259 problem:
What I do, is I remove the jacket, then I tin the braid for about a 1/2". Then I use a small tubing cutter cut the braid. The small tubing cutter is designed to be used in tight places and is very small. They can be found at any hardware or home center. The distance from the edge of the tool to the cutting wheel is just the right distance to trim the braid. Next I strip the center insulator back to the edge of the braid. Then screw the PL-259 body on and solder the braid through the holes. It's much easier when the braid is tined.
Also DON'T use the cheap PL-259 that are all over. Mostly I think hams buy them because they have Teflon insulation and a "gold" center pin. None of that means anything because all that I have measured are the wrong size. If you measure them in the area where the braid is soldered, I find most of them 0'05" bigger in diameter than the old standard amphonal PL-259. That means you have an extra 0.025" all the way around the braid to fill with solder. So I buy only the standard amphonal connectors and I have no problems with soldering them on.

--
John Passaneau W3JXP
State College Pa.
w3jxp@adelphia.net
"Bill Ogden" <ogden@us.ibm.com> wrote in message
news:3DB44B7D.4E10F937@us.ibm.com...
> Thank you both for the comments. As I understand it, better coax will
probably
> not help the "noise level" signals on 10 meters. It would get more power
to the
> antenna, but this is not such a significant concern for me. "If I can hear
them,
> I can usually work them." (If not, I turn on the linear.)
>
> The RG-213 is attractive because it is so durable and forgiving of
flexing,
> bending, water, etc. Nevertheless, I may go for the LM400 for the largest
part
> of the cable run. I hesitate to put more junctions in the line; there are
> already too many with a coax switch (at the antenna), lightning protection
unit,
> and another coax switch at the rig. Also, I *hate* installing PL259
connectors

> --- I just am not very good at getting a nice, even connection to the
braid.
>
> Bill
> W2WO
>
>
>
>

1108. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 22:25:58 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <tqv8ru0dr0oi5uqf9c8dl9ndg221qahfh7@4ax.com>
Source record: 132796

On Sat, 19 Oct 2002 22:15:45 -0500, 'Doc <w5lz@cwis.net> wrote:

>
>
>"W.G",
> When you boil all of that down, all that it says is
>that his program uses a secret algorithym (or is that
>an 'Al Gore-ism) and that he thinks it works well. It
>is an opinion, not a proven fact. (You know, about like
>antenna manufacturor's gain claims...)
> I very much doubt if ol'Frac cares one way or the other
>about what I think or say, so I have a feeling that he will
>not 'step up' to prove my opinion wrong. To do that he
>would have to disclose what his secret 'Al Gore-ism' is,
>and I don't plan to 'bate' my breath over that either...
> 'Doc

After all Chip's posturing about a debate (the "Fractal Debate"
thread), I thought he might have something to bring to the group
from the GO exercise he was so proud of...

.

1109. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 22:29:47 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <3509ru4sveurrcjndr3tgj39n7v5ql1m1l@4ax.com>
Source record: 132797

On Sat, 19 Oct 2002 20:29:27 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

>On Fri, 18 Oct 2002 23:07:32 GMT, W.G Ewald <wgewald@att.net> wrote:
>
>> Will Chip step up to prove you wrong this time?
>
>Hi OM,
>
>The only challenge I put up was for the past (and defeated) fractal
>Champion be applied to this "optimization." That way there was no
>doubt about the pedigree - nor the outcome.
>
>One might suspect such closely guarded details of being jimmied into a
>favorable light, but not here. Even the most basic announcement of
>pass/fail carries embarrassing admissions that need no figures. :-)
>
>Conundrum:
> Optimization succeeds - which in one fell swoop destroys
> the claim that fractals are the most optimal form;
>
> Optimization fails - which in one fell swoop destroys
> the claim that fractals are the most optimal; and destroys the
> claim that optimization works (it could't deduce the 6 triumphant
> challengers which felled the fractal!).
>
>To answer your question: Don't anyone bate their breath in
>anticipation of results from this simple challenge. ;-)
>
>Besides, its hard on your sides when you laugh....
>
>73's
>Richard Clark, KB7QHC

We have had our laughs during this fractal comedy...

1110. Re: MFJ 33-ft telescoping fiberglass pushup mast

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 22:32:28 UTC
From: jder8745@aol.com
Message-ID: <20021021183228.10358.00002624@mb-mp.aol.com>
Source record: 132799

Random length of wire with a long counterpose.

Jack

1111. Re: Antenna Rope

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 22:32:56 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <b909ruc208l6o7jdi512apl1e2svmkdcet@4ax.com>
Source record: 132798

On Mon, 21 Oct 2002 14:51:41 GMT, KAZeringue <kazeringue@aol.com>
wrote:

>I have been using a similar cord for about three years now, since the
>local walmart quit carrying tarred nylon "trot line" in the fishing
>department.

Hamilton Marine is a source for tarred line.

www.hamiltonmarine.com

1112. Re: MFJ 33-ft telescoping fiberglass pushup mast

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 22:34:56 UTC
From: jder8745@aol.com
Message-ID: <20021021183456.10358.00002625@mb-mp.aol.com>
Source record: 132800

But the MFJ mast weighs 3 or so lbs and the German weighs less. I wonder what the significance of that is.

My load will be a random length of small guage wire only.

73 de Jack, K9CUN

1113. Re: MFJ 33-ft telescoping fiberglass pushup mast

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-21 23:45:34 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB4919E.8475A874@cwis.net>
Source record: 132801

Jack,
The MFJ pole ought to work fine for a temporary
support. For a permanent support, I'd use something
else...
'Doc

1114. Re: Antenna Rope

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 00:54:06 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <Ok1t9.46782$md1.8155@sccrnsc03>
Source record: 132802

Sounds like standard parachute cord. Is rated at 450 pounds tensile strength
but is actually quite a bit stronger. Like any nylon, UV eats it but the
cover protects the strands. It should be good for several years if not
overstressed. The most weather resistant rope is polyester.
"Jim Widener" <jwide@tricon.net> wrote in message
news:5LSs9.6560$46.487@fe01...
> I need to shoot some line over a couple of 90' trees to hang a loop
antenna.
> This weekend I was in a surplus store and saw a 1000' spool of "Paraline"
@
> 6 cents per foot. I can't find out much about this product except for a
> reference to it on the net that refers to it as "Nylon Draw Cord". It is
> seven strands of string enclosed in a woven nylon sheath about 1/4"
> diameter. Does anyone have experience with this product? (or have any
other
> recommendations?). Looking for low abrasion and high strength. Jim, W4VJ
>
>
>

1115. Re: MFJ 33-ft telescoping fiberglass pushup mast

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 01:19:37 UTC
From: HRH <gi4uiv@ntlworld.com>
Message-ID: <3DB4A7A9.1000409@ntlworld.com>
Source record: 132803

HI

The big problem with these fishing poles is that the sections pull out
to fit. This is ok if you only intend to use them occasionally.
The poles tend to wear very quickly at the taper joint especially when
used in damp conditions. This results in the ends splitting as you need
to pull each section tighter and tighter into the next one.

Much better is what is called a put over pole, which you erect by
putting each section over the top of each other.

Most of my limited activity is portable and I use a couple of these type
of poles which are of the old heavier Fiberglas style. They are about 12
yrs old and they gave me good service when I was able to fish.

Both poles are 10 mars long but with the aid of a few old beachcasting
rods and other bits of various poles lying about I am able to extend
these to either 12 or 14 meters.

If you go for the fishing pole version you can purchase spare top
sections as they are easily broken.
To stiffen the tip section I have replace it with the top section of a
beechcasting rod on one pole and the other pole uses an old kiddies
solid glass spinning rod.

Only prob I have found with the put over style pole is that it can be a
bit awkward to lift upright in a stiff wind.
Rest of the time it takes me about 15 mins to put the pole together
along with the feeder stand-offs and antenna wire, then just lever it up
over the arm of the wheelchair and attach it to the brackets on the motor.

73s
de
Adrian
GI4UIV

JDer8745 wrote:

> Howdy,
>
> I just bought one and I am satisfied with it. You gotta make those sections
> tight when you erect it if there's any wind because I didn't and it retracted
> when I didn't want it to.
>
> 73 de Jack, K9CUN
>

1116. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 01:26:30 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB4A946.A99DA9BF@ieee.org>
Source record: 132805

lc wrote:
> Experiences using full-size quater wave vertical (with radials) would be
> appreciated. I'm building one for 40M. Base would be evelated about 10'

My experience was disappointing. The noise level on the vertical was two
S-units higher than a dipole and the signal levels averaged two S-units
lower on the vertical compared to the dipole. At my location, the vertical
wasn't worth erecting or even leaving erected.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1117. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 01:30:07 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <zS1t9.14551$dn3.479953@twister.southeast.rr.com>
Source record: 132804

Hi Larry,

Look up the tri-band vertical design by W6SAI which can be found in several antenna books. Three vertical wire radials, four radials per band, made from rotator cable cut to quarter wavelength. Support it with PVC pipe, hang it from a tree. Don't know about 40m, but 10/15/20m version worked very well.

Good Luck,

Bill, W4WNT

"lc" <larryc@northwest.com> wrote in message
news:3DB459FA.DED68710@northwest.com...
> Experiences using full-size quater wave vertical (with radials) would be
> appreciated. I'm building one for 40M. Base would be evelated about 10'
>
> LArryC, N3CCW, CN85
>
> --
> Welcome to Oregon - "The Food Stamp State"
>
>

1118. Wellbrook : what a service !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 01:42:29 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210211742.35640912@posting.google.com>
Source record: 132806

Hi,

Go for some publicity...

Some days ago I experiment a failure of my active magnetic loop from wellbrook (http://www.wellbrook.uk.com) that I cannot solve without spare parts.

NB. The quality of the antenna or parts is not involved in this problem.

I contacted wellbrook by email that immediately suggested me to make some measurements and various tests. Good news.

After have received my figures and read my appreciation of the problem in the next day Wellbrook told me to send them back the antenna interface, what I did immediately.

2 or 3 days later (time to go from LX to UK) they answered me that the interface was OK and they were sending me a new antenna (complete set at no charge as the warranty was still running).

In the meantime, as I already reviewed and tested the receive antenna ALA-330 (see my website) I suggestdc them to replace this model with the emitting one, the ALA1530.

No problem they only ask me to send them back the new antenna just sent and to pay some ï¿½25 extra.
Fine. I quickly intercepted the deliver company in LX and they send the loop back to Wellbrook.

A few days later I received the new ALA1530. In fact the $25 I paid as a complement did not only cover the price difference with the ALA330 but took also in account (and largely) my charges when I had to send them the interface back.

So I would like to congratulate here this company for the quality of his customer service and his quick reaction. This behavior becomes rather rare when we read post of forums and I think it could be mentionned.

Thierry
ONL5183
http://www.astrosurf.com/lombry

1119. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 01:51:42 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210211751.eede222@posting.google.com>
Source record: 132807

"Larry Bratcher" <lbratche@swbell.net> wrote in message
news:<SKWs9.6$GQ6.3964984@newssvr11.news.prodigy.com>...
> The best vertical out there is the Butternut HF6V or HF9V. Check out the
> reviews at www.Eham.com
> before you buy.
>
> <Pappy@USA.net> wrote in message news:3DB42BA7.F17BC414@USA.net...
> > I am going to purchase a new vertical HF antenna, my problem is which
> > one:
> >
> > MFJ-1798 or GAP Titan DX
> >
> > Has any one here had any experience with either of these antennas?
> >
> > Or, what vertical have you had a pleasant or unpleasant experience with.
> >
> > I chose these two from a host of others brands and models.
> >
> > Your assistance would be appreciated.
> >
> > 73's
> >

Hi,

As usually, all depend of :
- what is your budget...
- what HF bands your want to listen to/work with
- if you need a ground plane, couterpoises or surely not
- what is your maximum height, weight, etc

Titan GAP has probably a better reputation that MFJ, but this is a
personal opinion.
There are also many excellent models to Cushcraft (R6, R7 or similar),
Butternut, High-gain and few other manufacturers.

As suggested check first the technical reviews on eham.net (where I
also actively participate). That could help you to select a few "good
verticals" and from there to get a closer look.

NB. Personaly I appreciate first the Cushcraft then the Butternut
vert. Note also that you sometimes find their user or assembly manual
online.

Thierry
ONL5183

http://www.astrosurf.com/lombry

1120. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 02:09:08 UTC
From: Bill M <exray@no>
Message-ID: <ur9cmdrj1r0s85@corp.supernews.com>
Source record: 132808

lc wrote:
>
> Experiences using full-size quater wave vertical (with radials) would be
> appreciated. I'm building one for 40M. Base would be evelated about 10'
>
> LArryC, N3CCW, CN85
>
> --
> Welcome to Oregon - "The Food Stamp State"

I used one for a few years and it was excellent. Of course I had 60+
radials and was on a cliff overlooking the sea and had a VP2E callsign
to light it up with.
JA pileups generally ran 20 over 9 in the mornings and I often had to
work 'em by call areas.
A sloppy dipole at the same QTH would barely hear the JAs.
-Bill M

1121. Re: Line of sight topographic mapping software

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 02:23:54 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <ur9dji9e8so9fe@corp.supernews.com>
Source record: 132809
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,alt.ham-radio.fm,alt.radio.amateur

I have used DeLorme's 3-D TopoQuads (one bunch of disks per State) to make profiles. The process is quite simple. Do not forget to use a 4/3 radius when estimating where the radio horizon is located (to account approximately for diffraction).

I also use Topo USA (DeLorme) v3, which does not have quite the resolution of TopoQuads. I have not tried to make profiles with Topo USA, but I expect that it could be done.
73 Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net
...
> I'm hoping to find some topographic mapping software that will display
> all areas that are within line of sight of a given point. The
principal
> idea is to use it with VHF and UHF radios to chart out signal
> propagation via line of sight to all areas around a given point. I'd
> like to use the software to help me with some "mountaintopping"
> excursions so I can see where I might reach from a given mountain top.
>
>

1122. Mechanical resistance of a G5RV ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 02:31:50 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0210211831.6f57b012@posting.google.com>
Source record: 132810

Hi,

I have to install a new G5RV in my garden, tied between the chemny, located at about 8m high, and a remote mast, 30m away. The QTH is in an open field and supports from time to time gusty wind near 80-100 km/h or faster.

I need your comments about practical considerations dealing with its attachment and mechanical resistance.

- what force or tension supports the metallic wire of a G5RV (bought from universal-radio, $27 + charge). Much more than 100 kg ?

- Must I tie it until it is really straight between my chemny and the mast or must I accept it curves a bit (50cm-1m in the middle) to resist easier to gusty winds ?

- what must be the diameter of the metallic remote mast to support the tension of such wire antenna. Is a 2" aluminimum tube 8m high enough (or too large, or do I need stanless steel) if it is attached on its last 50 cm or 1m on the side of a cottage with 4 U-bolts ?
NB. the cottage where the mast will be fix onto supports better the gusty wind as it is partly protected by nearby high pinetrees.

- at last a stupid question maybe, what kind of "knot" do I use to fix the wire antenna at its ends for a permanent installation, the same as for my shoes, but doubled or tripled or a stronger one (I do not know marine knots but I can find them on Internet if relevant).

Thanks

Thierry
ONL5183
http://www.astrosurf.com/lombry

1123. RE: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 02:36:06 UTC
From: fractenna@aol.com
Message-ID: <20021021223606.20918.00003412@mb-mn.aol.com>
Source record: 132811

21 October, 2002

I wish all the concern was sincere, but clearly some is not.

Nonetheless, I seem to recall mention "mid/late October". The cluster is running straight out, 24/7, with in-house projects at the moment. I am also as busy as I have been in many years. I anticipate there will be a short lull within the next two weeks, and that is when I will run through this simple challenge.

At this time, I would like to give Steve Best the collegial opportunity to get one final chance to review his posited optimization figure of merit (FOM). I actively encourage him to scrutinize the FOM, and consult and confer with others to make sure--based on his VERY BEST SCIENTIFIC know-how-- that said FOM is not ill-posed or pathologically degenerate. After this opportunity, I will be forced to use his FOM in final form without any input from those who will run the challenge whatsoever. As a scientist, I will then have to make objective interpretations of the results based upon the I/O. Emphasis on 'I' . It is my personal desire to have these fairly presented and to give Steve Best a fair shot.

One last time: Steve, are you satisfied with the FOM? I will wait for your final presentation of it before commencing the challenge. Take your time; no rush from this end.

73,
Chip N1IR

1124. Re: Line of sight topographic mapping software

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 03:02:33 UTC
From: Ed Wright <edwardMwright@attbi.com>
Message-ID: <atf9ruk39cuqt403g5qla5bsnmtjvimvjh@4ax.com>
Source record: 132812
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,alt.ham-radio.fm,alt.radio.amateur

Home page
http://www.cplus.org/rmw/download.html

RADIO MOBILE Is Quite the product
and Free

On Mon, 21 Oct 2002 22:23:54 -0400, "J. McLaughlin"
<JCM@Power-Net.Net> wrote:

>I have used DeLorme's 3-D TopoQuads (one bunch of disks per State) to
>make profiles. The process is quite simple. Do not forget to use a 4/3
>radius when estimating where the radio horizon is located (to account
>approximately for diffraction).
>
>I also use Topo USA (DeLorme) v3, which does not have quite the
>resolution of TopoQuads. I have not tried to make profiles with Topo
>USA, but I expect that it could be done.
> 73 Mac N8TT

Do a good thing
Visit and support
http://home.pacifier.com/~wildones

I have seen the truth, and it makes no sense . . .
A Fine Cat Sanctuary
I hope one day to become the kind of person my cat thinks I am

vidi venci veni

1125. Re: max. coax length - can I do this

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 03:16:35 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3db4c7a3_2@news1.prserv.net>
Source record: 132813

Wolfgang:

RG-213 or 214 can easily support the weight of 100' (33 meters) of itself, but the upper attachment requires the correct hardware. There are two methods, the hoisting grip, which is like the braided finger trapper, but made to grip and support cable. See a commercial electrical supply dealer. The second method is to form the cable around a fixed pulley which is slightly larger than the minimum bend radius, fastening the cable back to itself with some form of permanent strap. Tape would be marginal, but might work if enough of it is applied. I have 100' of RG 214 supported with a hoisting grip inside the mast of my LPA, and expect no problems.
Good luck.
73,
W5VPQ

--
Crazy George
Remove NO and SPAM from return address
OE1MWW <no.mail@please.com> wrote in message
news:r157ru46qkkj6rktcq3i4j2omidgq90oqf@4ax.com...
> Hi all,
>
> friend of mine is licensed now. He lives in a 9 floor high apartment
> building - he shack is in the first floor. There are some cable ducts,
> but this will end up in around 25m (75ft) vertical cable length.
>
> Can a coax, like the RG-213, be mounted in such a length without
> damaging it due to the own weight - and stretching it.
>
> Any comments are welcome
>
> 73's de Wolfgang OE1MWW

1126. Re: Question: Bonding unlike metals for antenna connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 03:31:03 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0210211931.5c1e55b2@posting.google.com>
Source record: 132814

Kanberi <pti@capnet.com> wrote in message news:<3DADF1E2.4A2663C4@capnet.com>...
> I have 14 gauge stranded copper that I want to attached to
> a skinny rod (I think its copper... its one of those ready made
> outfits for making dipoles with a SO-239 and two rods.
> HQ-1 I think)
>
> I don't want to solder it but just clamp it. Is it OK to clamp it
> with one of those buss bars used for electrical work?
> I think its made out of aluminum.
> Will it be a dissimilar metal problem and corrode?

Do NOT use an aluminum wiring device to attach anything to a copper or copper alloy metal like brass. Stores like Home Depot and any electrical supply house carry copper compression connectors in many sizes which are called "bugs". Use one of those.

>
> What kind of lacquer is good to coat this connection outdoors?

Not necessary if all the parts are copper or copper-based.

w3rv

1127. Re: Tower base bolt corrosion prevention ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 04:01:24 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0210212001.263650f4@posting.google.com>
Source record: 132815

AA6QN <aa6qn@excite.com> wrote in message news:<3DB179B8.E8584B93@excite.com>...
> Not sure if this is the right forum for this? Here goes, I am in the
> process of rebuilding a self supporting tower to replace an older fixed
> guyed tower. The concrete foundation was layed several years ago that
> made use of 1 inch dia high tension J-Bolts. I noticed that there was
> corrosion right at the cement level on the bolts. I know rust never
> sleeps :-(
>
> I am having a adapter plate made for the replacement tower but wanted to
> perform some kind of corrosion prevention on those bolts prior to
> setting the plate in place. especially at the point where the bolt
> leaves the concrete.
>
> I was thinking about the old sailor method of using grease between the
> adapter plate and concrete but did not want to trap moisture. Was also
> looking a LPS compounds the dry to a hard surface.
>
> Construtive idea's are welcome. Tower safety starts at the beginning.

AMEN!

Chip the concrete away from the j-bolts a couple inches into the
concrete. Power wire brush off all visible rust. Apply mil-spec yellow
zinc chromate primer to the bolts. Then apply several coats of
Rustoleum enamel. Let it dry for a week in moderate temps (>65F). Wrap
the bolts tightly with 3M #88 tape so that the tape extends an inch or
two above the surface of the concrete. Backfill the holes with a good
industial-grade non-shrinking or controlled expansion grout with a bit
of a water-shedding slope around each bolt. Coat all of it with hot
tar. Sandwhich the hot-dipped galvanized adapter plate between Grade 8
heavy-section galvanized nuts.

Prayer won't hurt.

>
> Best Regards, John

w3rv

1128. Re: HyGain 402BA help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 04:12:59 UTC
From: Marc Willis <nc7m@earthlink.net>
Message-ID: <ff4t9.7767$071.701222@newsread1.prod.itd.earthlink.net>
Source record: 132816

From the Hygain 204BA Manual
All measurements are from the boom out in inches:
Reflector 44 1/2, 46, 50 1/2, 24, cw 53 / sb 50
Driven 35, 46, 50 1/2, 24, cw 53 / sb 50
Dir 1 21, 46, 50 1/2, 24, cw 53 / sb 51
Dir 2 16 3/4, 46, 50 1/2, cw 53 / sb 49
Element Placement
Reflector to Driven - 10' 2 7/8"
Driven to Director 1- 7' 4 3/4"
Director 1 to Director 2 7' 11 3/8"

"Bill Turini" <hamshack@hamanuals.com> wrote in message
news:3DB385FF.3000604@hamanuals.com...
> I was given a HyGain 402BA (40mtr 2 el beam) that had the boom broken,
> etc. I've got it all cleaned up and ready to re-assemble, but I'm not
> sure of the element length.
>
> I have a copy of the original HyGain manual, the MFJ (402BAS) manual,
> and they both are different from the length of the elements when I
> received the antenna. 3 measurement. Which one do I go with?
>
> Anyone have any comments, or a NEC file?
>
> Thanks
>
> Bill
>
> --
> Bill Turini KA4GAV
> HAManuals
> 29926 SE 408th Street
> Enumclaw, WA 98022-7761
>
>

1129. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 06:45:53 UTC
From: Fred Marshall <fmarshall@acm.org>
Message-ID: <ap2saq$i7l$1@feed.centurytel.net>
Source record: 132817

Sorry to jump in the middle. I'm curious about what the heck the context of this discussion is. Something about a FOM and challenge and optimization......etc. There must be references, web pages or.......?

73,

Fred AC7VR

"Fractenna" <fractenna@aol.com> wrote in message news:20021021223606.20918.00003412@mb-mn.aol.com...
> 21 October, 2002
>
> I wish all the concern was sincere, but clearly some is not.
>
> Nonetheless, I seem to recall mention "mid/late October". The cluster is
> running straight out, 24/7, with in-house projects at the moment. I am also as
> busy as I have been in many years. I anticipate there will be a short lull
> within the next two weeks, and that is when I will run through this simple
> challenge.
>
> At this time, I would like to give Steve Best the collegial opportunity to get
> one final chance to review his posited optimization figure of merit (FOM). I
> actively encourage him to scrutinize the FOM, and consult and confer with
> others to make sure--based on his VERY BEST SCIENTIFIC know-how-- that said FOM
> is not ill-posed or pathologically degenerate. After this opportunity, I will
> be forced to use his FOM in final form without any input from those who will
> run the challenge whatsoever. As a scientist, I will then have to make
> objective interpretations of the results based upon the I/O. Emphasis on 'I' .
> It is my personal desire to have these fairly presented and to give Steve Best
> a fair shot.
>
> One last time: Steve, are you satisfied with the FOM? I will wait for your
> final presentation of it before commencing the challenge. Take your time; no
> rush from this end.
>
> 73,

> Chip N1IR
>
>

1130. Old Hustler Mobile Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 07:10:02 UTC
From: Martin Hibbs <mhibbs@ipeg.com>
Message-ID: <3DB4F9C8.3039AD3D@ipeg.com>
Source record: 132818

Does anyone out there recall or know about an antenna by Hustler/New-Tronics which went by the nomenclature of "RB-20"? I have come across one missing what I believe to be the uppermost portion of the radiating element. FYI it is a mobile antenna and has an NMO style base connector with a more or less typical base loading coil (looks about like a 5/8 wave CB coil) and a multi-piece screw-together radiating element which fits into a larger than usual typical Hustler adjusting mechanism. 20 meters? Or....???

Any manuals, diagrams, fond memories, dimensions of the top element, verbal descriptions? Any information would be appreciated.

(And yes, I have done the web searching.)

Anyone?

Marty...
N7MX

1131. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 08:23:43 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210220023.db96096@posting.google.com>
Source record: 132669

lc <larryc@northwest.com> wrote in message news:<3DB459FA.DED68710@northwest.com>...
> Experiences using full-size quater wave vertical (with radials) would be
> appreciated. I'm building one for 40M. Base would be evelated about 10'
>
> LArryC, N3CCW, CN85

Worked great here for long haul stuff at night. But I had mine at 36 ft at the base. I used 4 radials, which roughly would equal about 50-60 radials if ground mounted. Yours should work fairly well, but be aware that you would need more radials to equal the performance I had. I note Cecil didn't like his, but he also didn't really use the proper number of radials for the low height he had his at. Or at least to equal the performance I had... I think he had his at 15-20 ft or so. About 1/8 wave up. I've already mentioned this in the past. 36 ft is 1/4 wave up on 40m. 10 ft is less than 1/8 wave. That means you will need MANY more radials to equal the four I used at 36 ft. You will need nearly as many as for a ground mount. Also, a ground plane or decent ground mount vertical doesn't even begin to show it's stuff until you start to work fairly long paths. I don't think Cecil ever tried any real dx with his. So that further skews his results. You have to get over 800-1000 miles on 40m, just to get to the crossover point where the vertical starts to equal or outdo a dipole at 35-40 ft. When I had my GP at 36 ft, and a dipole at 36 ft, 800-1000 miles was about the norm for the crossover point. At 1500 miles, the GP never lost. Not even once. From here to VK land or any other dx, the GP was waaaaaayyyyy better than the dipole. But if I worked from here to say Ohio, they would be about even on average. I think you would almost be better off with a ground mount if you can't go any higher than 10 ft. At 10 ft, the proper number of radials for decent performance will surely not look too hot, and may get in the way. They could also be a shock hazard if they could be touched. It would be neater to lay them all on the ground being you need so many either way. Lets say you need 60 to equal the performance I had with 4 at 1/4 up. At 10 ft up, you would likely need at least 40 or so. If you want to run elevated, I'd get at least 25 ft up, with 36 ft being better. 36 ft is easily done using a radio shack pushup mast. You HAVE to get that high up if you want good performance with only four radials. Ask almost anyone, including Cecil, who ran one fairly low, with only 4 or so radials, and they will tell you they didn't like it. I believe them, as I wouldn't like it either compared to the one I ran at 36 ft. I had a ground mount with 32 radials, and it was no match to the GP at 36 ft. Like day and night. A vertical is a great dx antenna on the low bands, but you have to use the proper number of radials if you want 1st class results. Sure, just a few will work at low heights, but

mediocre at best. If you use 120 radials on a ground mount as a benchmark, at 1/8 wave you will need 50-60. At 1/4 wave about 8-10. At 1/2 wave, 3-4. All are appx equal antennas as far as ground losses. But the patterns will vary from the effects of ground. 1/4 wave up, is a nice height for 40m dx, with very little high angle lobes. Note my 4 radials were not "optimum" compared to 120 radials. But it still worked very well, about equal to 60 when used on the ground. Would have been even better if I had doubled the radials to 8. The only people that ever beat me to VK land, were using arrays of some kind. Either yagi's, or bobtail curtains and such. No vertical loop or dipole ever beat me when using the GP. Period. Most of the people with vertical loops couldn't get them high enough off the ground to compete. I had locals with bobtail curtains that beat me nearly every time though. "amounts to an array of 3 verticals". The difference between my dipole, and the GP was usually 4 S units on most peoples S meters in VK land. Of course, an S unit can amount to anything, but that was the usual report I got from all concerned over there. From here to the west coast of the US, "1500 miles", 2 s units difference was the usual report I got when comparing. The difference would have been smaller if I had the dipole at 65 ft, "1/2 wave up", but I can't get mine that high.
MK

1132. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 12:29:33 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB544AD.E58199FC@ieee.org>
Source record: 132670

Mark Keith wrote:
> The difference would have
> been smaller if I had the dipole at 65 ft, "1/2 wave up", but I can't
> get mine that high.

Just curious, Mark, if you can get your vertical to 65 ft., why can't
you get your dipole to 65 ft.?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1133. Re: Mechanical resistance of a G5RV ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 12:37:33 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3db54740$0$4274$ba620e4c@news.skynet.be>
Source record: 132671

I have sent my reply in French to your personal address.

73 de ON5MJ - Jacques.

1134. Window mount antennas/tinted windows?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 12:42:57 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210220442.60ac9c8a@posting.google.com>
Source record: 132672

How can I tell if the tint on my car windows is metalic?

I have a 2000 Ford Taurus Wagon, and the side window where I would like to mount the antenna has a dark opaque tint around the edges with a transparent tint in the center section. If I mount my antenna on the transparent part it would be too low, particularly on 440 MHz.

Has anyone out there used a glass mount antenna on a Ford Taurus wagon?

Jim
N8EE

1135. Re: Mechanical resistance of a G5RV ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 13:03:01 UTC
From: sburgoyne@faux9bit.qc.ca
Message-ID: <3db547f4.2452147@news.9bit.qc.ca>
Source record: 132673

Hello Thierry,

since the G5RV is a simple wire antenna, it shouldn't be too much trouble putting it up.

First, the G5RV has a 10 - 11 m length of balanced line that has to be installed vertically. Your chimney, needs another 2 - 3 m ! anyway... try to avoid metallic objects by staying away 30 - 40 cm for the balanced line.

Second it can be installed as an inverted V dipole, with ends attached lower, say 4-5 m high. (mine is like that) Think about putting it up higher in the middle on your chimney (if your chimney is in the middle).

The force needed to pull the wire is about 5-10 kg on each ends. You dont need to play the cello on the string! ha ha.

Try twisting the balanced line a bit on the way down, it will reduce the wind grip on it. (maybe 1 full turn per meter)

For knots, I personnaly like clevise knots (3 or 4) (cl&#65533; simple ou double) or a bowline (noeud de chaise) , as they are quite easy to untie, but they stay tied when you want them to. (scouts 101)

bonne chance, de Stephan, VE2OWL
---
to reply direct, remove "faux" from e-mail address

1136. Re: Line of sight topographic mapping software

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 13:03:04 UTC
From: sburgoyne@faux9bit.qc.ca
Message-ID: <3db54afa.3226271@news.9bit.qc.ca>
Source record: 132674
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,alt.ham-radio.fm,alt.radio.amateur

Do a search for "Radio mobile" ham program
it is THE thing you want, by VE2DBE

http://www.cplus.org/rmw/english1.html

it is a freeware

Stephan VE2OWL

"J. McLaughlin" <JCM@Power-Net.Net> wrote:

>I have used DeLorme's 3-D TopoQuads (one bunch of disks per State) to
>make profiles. The process is quite simple. Do not forget to use a 4/3
>radius when estimating where the radio horizon is located (to account
>approximately for diffraction).
>
>I also use Topo USA (DeLorme) v3, which does not have quite the
>resolution of TopoQuads. I have not tried to make profiles with Topo
>USA, but I expect that it could be done.
> 73 Mac N8TT
>
>--
>J. Mc Laughlin - Michigan USA
>Home: JCM@Power-Net.Net
>...
>> I'm hoping to find some topographic mapping software that will display
>> all areas that are within line of sight of a given point. The
>principal
>> idea is to use it with VHF and UHF radios to chart out signal
>> propagation via line of sight to all areas around a given point. I'd
>> like to use the software to help me with some "mountaintopping"
>> excursions so I can see where I might reach from a given mountain top.
>>
>>
>

---
to reply direct, remove "faux" from e-mail address

1137. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 13:28:35 UTC
From: fractenna@aol.com
Message-ID: <20021022092835.11260.00003261@mb-cv.aol.com>
Source record: 132675

>he
>would have to disclose what his secret 'Al Gore-ism' is,
>and I don't plan to 'bate' my breath over that either...
> 'Doc
>

The method and apparatus is patent pending. References of relevance can be found on the appropriate pdf:

http://www.fractenna.com/FRAGO%20Brochure.pdf

A sense of the speed and magnitude of the cluster can be found at:

http://www.fractenna.com/nca_news_16.html

You might assume that both hardware and software improvements are continually occuring.

This is the extent of what I have the time and interest in providing as details, given your negative tone, sir.

Good day.

NC

1138. Re: Question: Bonding unlike metals for antenna connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 13:45:17 UTC
From: richardharrison@webtv.net
Message-ID: <9528-3DB5566D-239@storefull-2317.public.lawson.webtv.net>
Source record: 132676

Kanben wrote:
"I don`t want to solder it but just clamp it."

For 14 gauge stranded copper to skinny rod, there are split-bolt copper connerctors. These can be tightened for permanency.

To fasten antenna conductors, as well as steel cables, of various metals and conductors, and between mixed metals, use Nicropress sleeves. Just search on "Nicropress" for details.

Best regards, Richard Harrison, KB5WZI

1139. Re: max. coax length - can I do this

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 14:14:13 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DB55D00.83FC8E33@uwe.ac.uk>
Source record: 132677

OE1MWW wrote:
>
> Hi all,
>
> friend of mine is licensed now. He lives in a 9 floor high apartment
> building - he shack is in the first floor. There are some cable ducts,
> but this will end up in around 25m (75ft) vertical cable length.
>
> Can a coax, like the RG-213, be mounted in such a length without
> damaging it due to the own weight - and stretching it.
>
> Any comments are welcome
>
> 73's de Wolfgang OE1MWW

My contest group regularly hangs 100 ft. lengths from towers
with no ill effects. Secure the cable at the top with several
ty-raps, don't depend on the plug. It'll be fine.

vy 73

ANdy, M3ABC

1140. Diamond X6000A or Comet GP-98 - Which one ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 15:25:49 UTC
From: ukmonitor@hotmail.com
Message-ID: <ed985fdb.0210220725.5af31cc6@posting.google.com>
Source record: 132678

Has anyone had experience of the Tri-band omni verticals made by Diamond and Comet.

Which one is the best constructed / performer ?

Diamond X6000A

or

Comet GP-98

Any comments welcome.

UKM

1141. New General looking for antenna ideas for apartment

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 15:55:34 UTC
From: yeah_right@noway.com
Message-ID: <3db5742b.6221779@news.verizon.net>
Source record: 132679

I just passed my General exam (woo hoo!), and my TS-430 is coming tomorrow or Thursday. I live in an apartment, and I have balcony access. I was a Tech Plus, so I have been running a 10 meter vertical out there without any problems. Any ideas on which bands I should try to use? I mostly will operate after 5:00 PT, and I am in Washington. What bands would be open after 5:00? Will 20 still be open? I really don't know, beause I don't have a good radio to monitor the bands yet.

Also, anyone have some great limited-space antenna ideas for me? I have a balcony (with wooden railings) to work with.

Also, what are some of the favorite HF bands that people use in this newsgroup, and why?

Thanks,

Scott Keller
N9WDH / AG

1142. Delta Loop Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 16:48:53 UTC
From: n4bs2002@yahoo.com
Message-ID: <b09fcb6a.0210220848.c9124a2@posting.google.com>
Source record: 132680

I recently moved to my new home with antenna restrictions; hoever, I have been authorized to install a wire antenna. I hav a 40 foot tree on my postal stamp size lot, so I would like to install a delta loop. I read the article in QST (May 2000) about a stealthy delta (p.47-48. I have a couple question that I hope someone can answer my questions before I decide.

1. Does the triangle have to be equilateral (all size of equal lenght? I planning a delta loop with 30' x 30' x 50'. The base of the antenna will be 50' and will be conntected to a SGC-237 antenna coupler.

2. How does this antenna perform? I don't have EZNEC to model the antenna. I plan to work 10-80 meters. The antenna will be installed at 35' and support by my fence in my backyard. Note, the tree is about ten feet from the fence, so the two legs be pulled to the fence thus the legs will not be in the sam palne as the apex of the loop.

3. Is the antenna known to cause RFI? I plan to use RG-8 coax (80 feet) from the bottom of the antenna coupler to the rig.

Thanks for any input.

Mike

1143. Re: Delta Loop Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 17:03:46 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB584F2.2C0CAE5C@ieee.org>
Source record: 132681

m wrote:
> 2. How does this antenna perform? I don't have EZNEC to model the
> antenna. I plan to work 10-80 meters.

Download the free demo version of EZNEC from www.eznec.com and
see for yourself.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1144. Re: Delta Loop Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 17:19:42 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <OMft9.1407$z5.891739@newssvr28.news.prodigy.com>
Source record: 132682

The sides don't have to be equal, but shouldn't be wildly different.

Performance depends on where you feed it and what distance you are trying to communicate. For close-in contacts, feeding the bottom center will be OK...for DX, feed at one of the lower corners. If you use a SG237, make sure that you have a good ground and/or counterpoise. The 237 won't work right in a balanced feed system unless the ground side is clearly defined, because the 237 is unbalanced by design. This can be done with a dipole by making the ground leg 5% longer than the other. With corner feed, if you just connect the ground leg of the 237 to the lower wire, you'll probably be allright.

Hope that helps.

--
Larry N8LP

"m" <n4bs2002@yahoo.com> wrote in message
news:b09fcb6a.0210220848.c9124a2@posting.google.com...
> I recently moved to my new home with antenna restrictions; hoever, I
> have been authorized to install a wire antenna. I hav a 40 foot tree
> on my postal stamp size lot, so I would like to install a delta loop.
> I read the article in QST (May 2000) about a stealthy delta (p.47-48.
> I have a couple question that I hope someone can answer my questions
> before I decide.
>
> 1. Does the triangle have to be equilateral (all size of equal
> lenght? I planning a delta loop with 30' x 30' x 50'. The base of
> the antenna will be 50' and will be conntected to a SGC-237 antenna
> coupler.
>
> 2. How does this antenna perform? I don't have EZNEC to model the
> antenna. I plan to work 10-80 meters. The antenna will be installed
> at 35' and support by my fence in my backyard. Note, the tree is
> about ten feet from the fence, so the two legs be pulled to the fence
> thus the legs will not be in the sam palne as the apex of the loop.
>
> 3. Is the antenna known to cause RFI? I plan to use RG-8 coax (80
> feet) from the bottom of the antenna coupler to the rig.
>
> Thanks for any input.
>
> Mike

1145. Re: Delta Loop Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 17:44:45 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB58E8D.66B353E9@ieee.org>
Source record: 132683

Larry Phipps wrote:
> The sides don't have to be equal, but shouldn't be wildly different.

If you compare a delta loop to a square loop, one of the sides is wildly
different. :-) The rule-of-thumb is that the more area in the center, the
better.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1146. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 17:51:07 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <i71bruohftcf1v88ahobtetvkroq749fuq@4ax.com>
Source record: 132684

On Mon, 21 Oct 2002 23:45:53 -0700, "Fred Marshall"
<fmarshall@acm.org> wrote:

>Sorry to jump in the middle. I'm curious about what the heck the context of
>this discussion is. Something about a FOM and challenge and
>optimization......etc. There must be references, web pages or.......?
>
>73,
>
>Fred AC7VR

Hi Fred,

This is the middle of a contest over who can design the most optimum
antenna within the constraints offered (see quote below). In the
past, I have likened it to the story of John Henry who stood in
opposition to the automatic rail driving machine (Steve's effort to
design against a computer program). You are entitled to be puzzled
over the issue, but not with as much puzzlement as the original author
who has a convenient memory to forget Steve's longstanding answer:

>"Fractenna" <fractenna@aol.com> wrote in message
>news:20020903221016.06895.00000950@mb-cq.aol.com...
>
>> <snip>
>
>> 1) Please write up the figure of merit (cost function) you wish to pursue.
>In
>> this way, there can be no disagreements that the FOM was chosen a
>posteriori,
>> and thus bias any result in some way. Merely saying 'best bandwidth; best
>> radiation resistance'; and so on begs the issue. It needs to be defined
>> mathematically in a way that includes all the criteria and weights them in
>a
>> reasonable way.
>
>> <snip>
>
>I have some initial reservations on using an FOM calculation to evaluate the
>designs. In the design of an electrically small self-resonant monopole
>style antenna, the performance limitations are decreasing radiation
>resistance, increasing Q (decreasing bandwidth) and decreasing efficiency.
>[Note that there are other electrically small designs that overcome these
>limitations but that's a different topic] From that perspective,
>simultaneously maximizing radiation resistance, bandwidth and efficiency is

>the ultimate goal in the design of an electrically small antenna. The
>weighted FOM comparison could result in a situation where two designs have
>equal FOM but remarkably different performance characteristics, when these
>are considered separately. Additionally, in attempting to maximize FOM, are
>we not ultimately trying to maximize radiation resistance, bandwidth and
>efficiency?
>
>However, I think that we will ultimately discover that the FOM calculation
>is irrelevant because electrically small monopole style antennas, occupying
>the same physical volume and being self-resonant at the same frequency will
>essentially have the same performance characteristics and the same FOM. Any
>FOM differences will primarily be a function of differences in efficiency.
>
>To satisfy the FOM proponents, lets use the following FOM calculation to
>evaluate the designs:
>
>FOM = 0.4 * R + 0.4* B + 0.2 * E
>
>where
>
>R = 1 - [(36 - Rr)/36]
>
>B = 1 - [(24 - BW)/24]
>
>E = 1 - [(98.9 - Eff)/98.9]
>
>Rr is the antenna radiation resistance.
>
>BW is the lossless antenna bandwidth determined from the matched SWR 1/2
>power points (SWR = 5.282:1). The 1/2 power matched SWR bands are
>determined with respect to the antenna's resonant frequency and resonant
>radiation resistance (ZO for the SWR calculation is equal to Rr). BW is
>expressed in %.
>
>Eff is the antenna efficiency in % determined at the self-resonant frequency
>from the difference in Rr and total resistance.
>
>For the purposes of this exercise, the antennas must be in a monopole
>configuration over an infinite ground plane. With the exception of the
>first base segment (bottom of feed point), no wire section can touch the
>ground plane. The antenna must be base fed at the closest segment to the
>ground plane. The antenna must be constructed with a single continuous
>piece of wire. The antenna wire diameter must be 0.5 mm. Radiation
>resistance is determined at the antenna feed point. The antenna must fit
>within a volume of 6 cm height and a cylindrical radius of 1.5 cm. The
>antenna must be self-resonant at 350 MHz. The self-resonant frequency is
>determined in the situation where the antenna is lossless.
>
>Geometry and total wire length are the variables. Maximize FOM at 350 MHz.
>

>Steve VE9SRB
>

As I have noted elsewhere, it is a fool's agenda to think this would have ever taken place - anytime.

You may also note that there is sufficient complexity to cloud the actual results - save one test that I have already mentioned. But again, fractals after having lost so overwhelmingly in the last contest, this undisclosed "optimization" will remain just so much marketing hype. Pay particular attention to the usage of "protected by pending patents" for that queer spin. If this goes into further discussion, you will undoubtedly be regaled with five reasons why it won't happen for every reason why it should (which begs the question, why was this challenge taken up only to then hide from it? The five-to-one ratio will probably be operative there too.).

Actually, the correspondence above is the second of two responses to "optimization" that have been abandoned in the field to the tacit admission of defeat. That, in the end, is a longstanding characteristic of fractals/cfa/eh and optimization - utter frauds incapable of close examination and worse (or better, depending on your point of view), withered in the face of competition.

Perhaps you've heard of the old joke of the guy on the street corner selling bottles of Universal Solvent. This optimization is like that seller offering a product on its merit, and conveniently neglecting to discuss the basic conflict in that specification. Universal Solvent in a bottle? Doesn't the solvent have the capacity to dissolve the bottle? No? Then what makes it a "universal" solvent? ;-)

If you follow the (cfa/eh/fractal) story long enough, the embarrassing humor of brash denial just pours freely - our cup runneth over....

73's
Richard Clark, KB7QHC

1147. Re: Mechanical resistance of a G5RV ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 18:21:35 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <6s4brukn0p60b1dsv0m90tvjv7tsb7lojp@4ax.com>
Source record: 132685

On 21 Oct 2002 19:31:50 -0700, lombryt@hotmail.com (Thierry) wrote:

>
>- Must I tie it until it is really straight between my chemny and the
>mast or must I accept it curves a bit (50cm-1m in the middle) to
>resist easier to gusty winds ?
>

Hi Thierry,

This has serious implications if you try to be straight as a ruler.

The strain on a hanging wire increases exponentially as the sag (curve) is straightened out. If you do your job very well, it might just collapse your chimney in the next gentle breeze! Chimneys are not designed to take a lateral stress (like that from a long wire suspended with a tight pull) only compression.

Take an example of a wire antenna weighing all of 1 pound. If it were 100 feet long with a 1 foot sag in the middle; then the tension in that wire is the weight multiplied by 48.9 (about 50 pounds NOT 1 pound). If a gust or two pressed the wire with 5 pounds of force, that too gets multiplied such that the chimney will experience a jerking, pulling force of 300 pounds. Those gusts have the same destructive potential against a chimney as 20 or 30 sledgehammers. If you are really lucky, the wire will break before the chimney.

73's
Richard Clark, KB7QHC

1148. CAM???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 18:38:41 UTC
From: Kanberi <pti@capnet.com>
Message-ID: <3DB59B31.BE72CE4D@capnet.com>
Source record: 132688

What were the dimensions or your open wire fed multi-band
antenna??

I have an 80 meters antenna that I want to make like yours
with opne wire feed line. I hope its long enough to work like
yours.

Please give specifics especially on the feedline type, where to
buy and dimensions.

Did you just solder the feedline to antenna??

Does feedline laying on a roof cause a problem?

I want to switch to coax as I enter the house. Does this
cause a problem??

thanks

1149. Re: Mechanical resistance of a G5RV ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 18:44:58 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB59CAA.56BBFE0@ieee.org>
Source record: 132686

Richard Clark wrote:
> This has serious implications if you try to be straight as a ruler.

Since a ruler is rarely used outside a gravitational field, is a
ruler ever straight? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1150. Help: Need Graphics from Manual Gap Challenger

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 19:01:58 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DB5A097.2A3EBD88@shaw.ca>
Source record: 132687

Hi,
I just picked up a Gap Challenger and downloaded the
manual from the Gap site. The graphics in the
downloaded version are poor and of little if any value.
Does anyone have a copy of the original manual, and if
so, would they be willing to scan the four graphics in
a better form for me?

Thanks in advance for any assistance.
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

1151. Re: Window mount antennas/tinted windows?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 19:15:55 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB5A3EB.A1C67F03@cwis.net>
Source record: 132689

Jim,
Do you have a magnet? How about a compass? Hold
the magnet on one side and see if it affects the compass.
Not the best way in the world but it should give you an
indication of metalic content...
'Doc

PS - Or, take a pane of glass out of the car and try
it in a microwave. Naw, that's worse than the
other idea...

1152. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 19:19:46 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB5A4D2.623B63EC@cwis.net>
Source record: 132690

Frac',
Your credibility is so incredible I'd have to
wait to check it if you said the sun would rise in
the morning... 'Negative' is right.
'Doc

1153. Re: Mechanical resistance of a G5RV ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 19:45:22 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <Lai1PaBzmBVUmCjY2AaTStCd5Mg+@4ax.com>
Source record: 132691

lombryt@hotmail.com (Thierry) wrote:

>Hi,
>
>I have to install a new G5RV in my garden, tied between the chemny,
>located at about 8m high, and a remote mast, 30m away. The QTH is in
>an open field and supports from time to time gusty wind near 80-100
>km/h or faster.
>
>I need your comments about practical considerations dealing with its
>attachment and mechanical resistance.
>
>- what force or tension supports the metallic wire of a G5RV (bought
>from universal-radio, $27 + charge). Much more than 100 kg ?
>
>- Must I tie it until it is really straight between my chemny and the
>mast or must I accept it curves a bit (50cm-1m in the middle) to
>resist easier to gusty winds ?

No big deal if it curves in the middle. It will still work fine.
>
>- what must be the diameter of the metallic remote mast to support the
>tension of such wire antenna. Is a 2" aluminimum tube 8m high enough
>(or too large, or do I need stanless steel) if it is attached on its
>last 50 cm or 1m on the side of a cottage with 4 U-bolts ?

Depends on what the u-bolts are attached to.

Consider placing a guy wire on the tube, directly opposite to where you attach the antenna, to keep the tube from keeling over. Or get a stronger tube. Just depends on how much flex it has.

>NB. the cottage where the mast will be fix onto supports better the
>gusty wind as it is partly protected by nearby high pinetrees.
>
>- at last a stupid question maybe, what kind of "knot" do I use to fix
>the wire antenna at its ends for a permanent installation,

Pull the wire tip through the insulator, and wrap it a few times around the straight part of the wire. That'll hold, no problem. No fancy knots needed.

The rope that holds the insulator could take a sailer's knot, or any secure double- or triple-knot.

>the same as
>for my shoes, but doubled or tripled or a stronger one (I do not know
>marine knots but I can find them on Internet if relevant).

>
>Thanks
>
>Thierry
>ONL5183
>http://www.astrosurf.com/lombry

1154. Re: Delta Loop Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 19:52:20 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <gKmdncDAtczaMSigXTWcpw@comcast.com>
Source record: 132692

Mike,

I think you can get away with quite alot. I have an approximation to a 75 meter square loop, which is actually a trapazoid. The bottom horizontal wire is about 30 feet longer than the top wire, because I tried to get the bottom wire as far off the ground as possible. The sides are sloping. I am feeding one corner (at about 20 feet) through a 1/4 wave section of RG11. The shield of the coax connects to the bottom horizontal wire. I started with the dimensions as if the unit was square, and did not have to trim a whole lot. Resonant SWR afer the RG11 is about 1.2:1. The antenna works quite well. When I run the 1200W linear, people in Europe have told me I was one of the few loud stations they were hearing from the states.

Tam/WB2TT
"m" <n4bs2002@yahoo.com> wrote in message
news:b09fcb6a.0210220848.c9124a2@posting.google.com...
> I recently moved to my new home with antenna restrictions; hoever, I
> have been authorized to install a wire antenna. I hav a 40 foot tree
> on my postal stamp size lot, so I would like to install a delta loop.
> I read the article in QST (May 2000) about a stealthy delta (p.47-48.
> I have a couple question that I hope someone can answer my questions
> before I decide.
>
> 1. Does the triangle have to be equilateral (all size of equal
> lenght? I planning a delta loop with 30' x 30' x 50'. The base of
> the antenna will be 50' and will be conntected to a SGC-237 antenna
> coupler.
>
> 2. How does this antenna perform? I don't have EZNEC to model the
> antenna. I plan to work 10-80 meters. The antenna will be installed
> at 35' and support by my fence in my backyard. Note, the tree is
> about ten feet from the fence, so the two legs be pulled to the fence
> thus the legs will not be in the sam palne as the apex of the loop.
>
> 3. Is the antenna known to cause RFI? I plan to use RG-8 coax (80
> feet) from the bottom of the antenna coupler to the rig.
>
> Thanks for any input.
>
> Mike

1155. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 20:04:54 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <1babrus37jppf5kdv7egcb5j3fncnnvjb0@4ax.com>
Source record: 132693

On Mon, 21 Oct 2002 23:45:53 -0700, "Fred Marshall"
<fmarshall@acm.org> wrote:

>There must be references, web pages or.......?

Hi Fred,

In response to this one particular question, yes they are available in
abundance:

http://www.qsl.net/kb7qhc/antenna/fractal/index.htm

This link leads to more than 300 pages of models, testing, and reports
of fractals alone. This is easily 50 times the coverage found
anywhere (everywhere) else (combined). Beware of commercial sites
that present the standard marketing hyperbole and beg off the
difficult questions to hide behind a shroud of secrecy, sham
testimonials, and the ever obtuse statement about being protected by
pending patents.

My pages represent a body of work first published on the net back in
early 1995 (it took other workers in this field some five years to do
far less). In the seven+ years that have followed, not one iota of
detail has been challenged. Some of it constitutes prior art that has
been obviously disregarded when it came to disclosure to the patent
office following their publication. You may well find (in the
archives) some discussion of legal actions being threatened - except
that such activity would come uncomfortably close to collapsing a
house of cards if actually pursued. ;-)

It is with this last queer attitude of scientific invention through
court suits that so lightens our day here in the group. You can
choose to ignore that soap opera, but you will then discover there is
very little real knowledge within the correspondence. In that regard,
my pages will provide a bounty of data and very little
editorialization (confined largely to one or two amateur design pages
that can only be best described as "ground warmers," see for one
particular example:
http://www.qsl.net/kb7qhc/antenna/fractal/n1ir/k2/index.htm
where performance at -5dBi is characterized by the amateur inventor as
superlative....).

73's
Richard Clark, KB7QHC

1156. rec.radio.amateur.antenna Standards??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 20:06:56 UTC
From: Fred Marshall <fmarshall@acm.org>
Message-ID: <ap4b8r$1ien$1@feed.centurytel.net>
Source record: 132694

I've been mostly lurking for the last few weeks. My hope was that there'd be some really interesting discussion about antennas here. My impression so far is disappointing because there is so much flaming / impolite messages, off topic stuff etc.

Are there no standards of discourse in rec.radio.amateur.antenna ??

Or, does one simply filter out certain senders? That would be a shame to contemplate.

There are certainly examples of newsgroups where folks do stick to the purpose and avoid too much flaming. Can that happen here?

Fred AC7VR

1157. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 20:08:14 UTC
From: Fred Marshall <fmarshall@acm.org>
Message-ID: <ap4bb6$1ifh$1@feed.centurytel.net>
Source record: 132695

Richard,

Thank you!

Fred AC7VR

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:1babrus37jppf5kdv7egcb5j3fncnnvjb0@4ax.com...
> On Mon, 21 Oct 2002 23:45:53 -0700, "Fred Marshall"
> <fmarshall@acm.org> wrote:
>
> >There must be references, web pages or.......?
>
> Hi Fred,
>
> In response to this one particular question, yes they are available in
> abundance:
>
> http://www.qsl.net/kb7qhc/antenna/fractal/index.htm
>
> This link leads to more than 300 pages of models, testing, and reports
> of fractals alone. This is easily 50 times the coverage found
> anywhere (everywhere) else (combined). Beware of commercial sites
> that present the standard marketing hyperbole and beg off the
> difficult questions to hide behind a shroud of secrecy, sham
> testimonials, and the ever obtuse statement about being protected by
> pending patents.
>
> My pages represent a body of work first published on the net back in
> early 1995 (it took other workers in this field some five years to do
> far less). In the seven+ years that have followed, not one iota of
> detail has been challenged. Some of it constitutes prior art that has
> been obviously disregarded when it came to disclosure to the patent
> office following their publication. You may well find (in the
> archives) some discussion of legal actions being threatened - except
> that such activity would come uncomfortably close to collapsing a
> house of cards if actually pursued. ;-)
>
> It is with this last queer attitude of scientific invention through
> court suits that so lightens our day here in the group. You can
> choose to ignore that soap opera, but you will then discover there is
> very little real knowledge within the correspondence. In that regard,
> my pages will provide a bounty of data and very little
> editorialization (confined largely to one or two amateur design pages
> that can only be best described as "ground warmers," see for one

> particular example:
> http://www.qsl.net/kb7qhc/antenna/fractal/n1ir/k2/index.htm
> where performance at -5dBi is characterized by the amateur inventor as
> superlative....).
>
> 73's
> Richard Clark, KB7QHC

1158. Re: CAM???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 20:34:31 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB5B657.3CE2E0F8@ieee.org>
Source record: 132696

Kanberi wrote:
>
> What were the dimensions or your open wire fed multi-band
> antenna??
>
> I have an 80 meters antenna that I want to make like yours
> with opne wire feed line. I hope its long enough to work like
> yours.
>
> Please give specifics especially on the feedline type, where to
> buy and dimensions.

Buy? Why buy an antenna that costs $20 to build? Details are on
my web page. Exact dimensions are not important. Virtually
any antenna around those dimensions can be tuned to resonance on
all HF bands by varying the length of the ladder-line. The Wireman,
(800)727-9473, sells the 450 ohm ladder-line as do a lot of other
companies. I personally like The Wireman's #554, #14 stranded.

> Did you just solder the feedline to antenna??

Yep, with black tie-wrap strain relief.

> Does feedline laying on a roof cause a problem?

Depends on the roof and how wet it is. Laying on a roof causes
dielectric losses especially in wet weather. I know a ham who
glued plastic pop bottles to his roof and used them for stand-
off insulators.

> I want to switch to coax as I enter the house. Does this
> cause a problem??

Not if the ladder-line is the correct length and you have a
functional 1:1 balun/choke at the balanced/unbalanced junction.
--
cheers, CAM http://www.qsl.net/w5dxp

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1159. Re: rec.radio.amateur.antenna Standards??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 20:41:11 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB5B7E7.DF900C6F@ieee.org>
Source record: 132697

Fred Marshall wrote:
> Are there no standards of discourse in rec.radio.amateur.antenna ??

This is an unmoderated newsgroup. Add human nature and this is what
you get which is actually much better than a couple of the other
r.r.a.* newsgroups.

> Or, does one simply filter out certain senders? That would be a shame to
> contemplate.

Ever observe what happens when it rains/floods on a duck?

> There are certainly examples of newsgroups where folks do stick to the
> purpose and avoid too much flaming. Can that happen here?

That actually does happen, off and on. Do you have any specific antenna
questions?
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1160. FA: 5" UHF Phelps Dodge cavity

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 21:39:11 UTC
From: Dave <jeronamo@REMOVE.aol.com>
Message-ID: <3Ajt9.792$Jn4.49208367@newssvr14.news.prodigy.com>
Source record: 132698

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1392042296

1161. Re: Antenna Rope

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 21:43:21 UTC
From: Jim Richardson <warlock@eskimo.com>
Message-ID: <pctg8-tj8.ln1@grendel.myth>
Source record: 132699

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

On Mon, 21 Oct 2002 08:53:18 -0400,
Jim Widener <jwide@tricon.net> wrote:
> I need to shoot some line over a couple of 90' trees to hang a loop antenna.
> This weekend I was in a surplus store and saw a 1000' spool of "Paraline" @
> 6 cents per foot. I can't find out much about this product except for a
> reference to it on the net that refers to it as "Nylon Draw Cord". It is
> seven strands of string enclosed in a woven nylon sheath about 1/4"
> diameter. Does anyone have experience with this product? (or have any other
> recommendations?). Looking for low abrasion and high strength. Jim, W4VJ
>
>
>

Sounds like standard parachute cord, IIRC the max safe load is 500lbs,
but I could be wrong on that. Something close to that though. I use it
all over the place for small line tasks that won't have to be in UV all
the time.

-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.2.0 (GNU/Linux)

iD8DBQE9tcZ5d90bcYOAWPYRAqdnAKChsCzb6QmmGXNzJ+McM5ZGewRVyQCfeGuy
oycME3Gr9jYehOxbOxZJ/9E=
=GD6c
-----END PGP SIGNATURE-----

--
Jim Richardson
Anarchist, pagan and proud of it
http://www.eskimo.com/~warlock
Linux, from watches to supercomputers, for grandmas and geeks.
```

1162. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 22:19:18 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <iujbru0qifthdve92ajbi1srno0qj9dh6h@4ax.com>
Source record: 132700

On Tue, 22 Oct 2002 17:51:07 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

>why was this challenge taken up only to then hide from it?

Because Chip's mother was Sally Rand?

1163. Re: rec.radio.amateur.antenna Standards??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 22:24:12 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3db5d50a_1@news1.prserv.net>
Source record: 132701

Fred:
For those kind of discussions, which have happened from time to time, go to Google groups, work your way to this newsgroup, and then enter key words appropriate to your interest. There have been detailed discussions at all levels, from the hard practical to some deep theoretical, and everything in between. Good hunting!

--
Crazy George
Remove NO and SPAM from return address
Fred Marshall <fmarshall@acm.org> wrote in message
news:ap4b8r$1ien$1@feed.centurytel.net...
> I've been mostly lurking for the last few weeks. My hope was that there'd
> be some really interesting discussion about antennas here. My impression
so
> far is disappointing because there is so much flaming / impolite messages,
> off topic stuff etc.
>
> Are there no standards of discourse in rec.radio.amateur.antenna ??
>
> Or, does one simply filter out certain senders? That would be a shame to
> contemplate.
>
> There are certainly examples of newsgroups where folks do stick to the
> purpose and avoid too much flaming. Can that happen here?
>
> Fred AC7VR
>
>

1164. Re: Old Hustler Mobile Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 22:53:38 UTC
From: rc12234@aol.com
Message-ID: <20021022185338.02223.00000131@mb-fh.aol.com>
Source record: 132702

My 20 meter Hustler resonator consists of
a 20 microhenry loading coil topped by an adjustable wire element whose length
can be adjusted for resonance.
W7ALC

1165. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 23:40:38 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <WIlt9.18854$Mb3.653623@bgtnsc04-news.ops.worldnet.att.net>
Source record: 132703

"Fractenna" <fractenna@aol.com> wrote in message
news:20021021223606.20918.00003412@mb-mn.aol.com...
>
> One last time: Steve, are you satisfied with the FOM? I will wait for your
> final presentation of it before commencing the challenge. Take your time;
no
> rush from this end.
>
> 73,
> Chip N1IR
>

Chip,

To be quite honest, I really don't care about the FOM, the antenna optimization or the challenge.

As I initially stated, I would prefer not to use an FOM. I would be satisfied if your computer GO came up a design, within the specified physical constraints, that had maximum radiation resistance and maximum bandwidth. I'm curious to see your computer's solution, especially how many GO attempts it took to arrive at the solution. Then, we'll compare your computer's design to some simple or arbitrary geometry that I come up with and see if it is significantly different.

Steve VE9SRB

1166. Re: HyGain 402BA help needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-22 23:44:36 UTC
From: Ace_On_Par3 <pwhelton@hal-pcNOSPAM.org>
Message-ID: <ap4o2h$22je$1@news.hal-pc.org>
Source record: 132704

Pretty cool. Now how about the measurements for the 402BA.

"Marc Willis" <nc7m@earthlink.net> wrote in message
news:ff4t9.7767$071.701222@newsread1.prod.itd.earthlink.net...
> From the Hygain 204BA Manual
> All measurements are from the boom out in inches:
> Reflector 44 1/2, 46, 50 1/2, 24, cw 53 / sb 50
> Driven 35, 46, 50 1/2, 24, cw 53 / sb 50
> Dir 1 21, 46, 50 1/2, 24, cw 53 / sb 51
> Dir 2 16 3/4, 46, 50 1/2, cw 53 / sb 49
> Element Placement
> Reflector to Driven - 10' 2 7/8"
> Driven to Director 1- 7' 4 3/4"
> Director 1 to Director 2 7' 11 3/8"
>
> "Bill Turini" <hamshack@hamanuals.com> wrote in message
> news:3DB385FF.3000604@hamanuals.com...
> > I was given a HyGain 402BA (40mtr 2 el beam) that had the boom broken,
> > etc. I've got it all cleaned up and ready to re-assemble, but I'm not
> > sure of the element length.
> >
> > I have a copy of the original HyGain manual, the MFJ (402BAS) manual,
> > and they both are different from the length of the elements when I
> > received the antenna. 3 measurement. Which one do I go with?
> >
> > Anyone have any comments, or a NEC file?
> >
> > Thanks
> >
> > Bill
> >
> > --
> > Bill Turini KA4GAV
> > HAManuals
> > 29926 SE 408th Street
> > Enumclaw, WA 98022-7761
> >
> >
>
>

1167. Screwdriver antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 03:05:33 UTC
From: Keith Thomas <thomaska@earthlink.net>
Message-ID: <1mot9.10789$U97.942041@newsread2.prod.itd.earthlink.net>
Source record: 132705

Antbody have any hf screwdriver antenna plans?

1168. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 03:15:16 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210221915.5c55b920@posting.google.com>
Source record: 132706

CAM <Cecil.A.Moore@ieee.org> wrote in message news:<3DB544AD.E58199FC@ieee.org>...
> Mark Keith wrote:
> > The difference would have
> > been smaller if I had the dipole at 65 ft, "1/2 wave up", but I can't
> > get mine that high.
>
> Just curious, Mark, if you can get your vertical to 65 ft., why can't
> you get your dipole to 65 ft.?

The vertical was at 36 ft at the base. About the same as the dipole. I
just mentioned that as some would likely mention that a higher dipole
would fair better against the vertical. And it's true. But I still
think the vertical would win to far dx even if the dipole was at 65 ft
regardless of what theory or modeling might say. I know this was
pretty much the case with W8JI and his dipoles and verticals on 160m.
He had a dipole at 1/2 wave or more on 160m, "I think 300+ feet??"
and he said his ground mount verticals still usually were the best to
dx. I think the polarization itself has a lot to do with it. I bet if
you modeled the two in his case, the dipole would win on paper. But it
didn't in the real world. I wish I had a 65 ft support. My present
dipoles are only about 42 ft up. My short tower is only about 31 ft
tall counting the mast. But I haven't used that here at the house yet.
It collects dust in the garage along with my triband beam. Need a
rotor... MK

1169. CAM?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 03:16:43 UTC
From: Kanberi <pti@capnet.com>
Message-ID: <3DB6149B.51A9B112@capnet.com>
Source record: 132709

I'm going to convert my 80 m dipole (123' total length) to what
you have. I'm assuming since its close to 130 it will make no
difference.
Will the 80 m dipole resonate at about the same point whether
I feed it with 50 ohm coax or 450 ohm?

Don't I need a 9:1 balun to bring the 450 ohms down to 50 ohms?
450/50=9

After the 1:1 Balun is 50 ohm coax which you just screw into
a 50 ohm jack on the tuner right???

Is the 50 ohm coax length critical??

1170. Re: CAM???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 03:17:21 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ap54c0mfv1@helle.btinternet.com>
Source record: 132707

Dear enquirer,

For much less than the time you waste making enquiries on this newsgroup and receiving conflicting answers you can set up an experimental antenna at mnimum cost and really learn something

1171. Re: Wellbrook : what a service !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 03:34:46 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210221934.2435784c@posting.google.com>
Source record: 132708

Good on both of you.
It is nice to hear. Hope many become aware
of how good Wellbrook services are.
They have a nice page to.
Art

lombryt@hotmail.com (Thierry) wrote in message
news:<db35a0c.0210211742.35640912@posting.google.com>...
> Hi,
>
> Go for some publicity...
>
> Some days ago I experiment a failure of my active magnetic loop from
> wellbrook (http://www.wellbrook.uk.com) that I cannot solve without
> spare parts.
>
> NB. The quality of the antenna or parts is not involved in this
> problem.
>
> I contacted wellbrook by email that immediately suggested me to make
> some measurements and various tests. Good news.
>
> After have received my figures and read my appreciation of the problem
> in the next day Wellbrook told me to send them back the antenna
> interface, what I did immediately.
>
> 2 or 3 days later (time to go from LX to UK) they answered me that the
> interface was OK and they were sending me a new antenna (complete set
> at no charge as the warranty was still running).
>
> In the meantime, as I already reviewed and tested the receive antenna
> ALA-330 (see my website) I suggestdc them to replace this model with
> the emitting one, the ALA1530.
>
> No problem they only ask me to send them back the new antenna just
> sent and to pay some ï¿½25 extra.
> Fine. I quickly intercepted the deliver company in LX and they send
> the loop back to Wellbrook.
>
> A few days later I received the new ALA1530. In fact the $25 I paid as
> a complement did not only cover the price difference with the ALA330
> but took also in account (and largely) my charges when I had to send
> them the interface back.
>

> So I would like to congratulate here this company for the quality of
> his customer service and his quick reaction. This behavior becomes
> rather rare when we read post of forums and I think it could be
> mentionned.
>
> Thierry
> ONL5183
> http://www.astrosurf.com/lombry

1172. Re: Noise Level

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 04:54:33 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210222054.5640f2f2@posting.google.com>
Source record: 132710

jim.bolinger@lintek.aeroflex.com (JLB) wrote in message

>
> In general, most modern receivers/transceivers are quieter than they
> need to be, as the external (atmospheric) noise is much stronger on
> the HF bands than the receiver noise. Ten meters is an interesting
> band, however, as there can be times when it is very quiet.

I think only real old, or radios in bad alignment would normally have a problem with sensitivity on 10m. I know years ago I made a preamp to go with my old drake R4, and the main purpose was to improve 10m. It didn't pan out. The drake was already good enough as is. The preamp just pumped up the S meter and trashed the radio out overall. The s/n ratio did not improve. So, being that radio was all tubes and made in 1965, I would think any modern radio should be plenty good enough on 10m. My newest radio "ic-706g" is very sensitive on 10m. ".16mv for 10db s/n" It has a built in preamp, but you don't need it. I almost never use it. I don't even use it on 6m or 2m.
>
> I would think that RG213 would be fine on 10 meters, but if you can
> afford it get the lower loss coax. It certainly won't hurt.

213 is fine normally, but 175 ft is starting to get a bit long for 10m use. But even if you lose half your power, it's only about a 1/2 S unit in theory. I don't think improving the coax will help his s/n ratio much at all. He needs a bigger beam with more gain, or better band cdx. :)

MK

1173. Re: Delta Loop Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 05:03:06 UTC
From: "mkelly@powerup.com.au" <mkelly@powerup.com.au>
Message-ID: <3DB62D8A.9558B0B3@powerup.com.au>
Source record: 132711

1. No
2. Pretty well. I use a sorta delta on 80-10m successfully.
Need the tuner tho. I have worked the USA on 40m
and Europe on 20m and 15m fine.

3. I have not had a problem running 100w and often times 400w

My delta is straight up and straight out with the far side
sloping. I feed at the square corner and on higher bands
it radiates best from the sloper side.

CL
Murray

m wrote:
>
> 1. Does the triangle have to be equilateral (all size of equal
> lenght? I planning a delta loop with 30' x 30' x 50'. The base of
> the antenna will be 50' and will be conntected to a SGC-237 antenna
> coupler.
>
> 2. How does this antenna perform? I don't have EZNEC to model the
> antenna. I plan to work 10-80 meters. The antenna will be installed
> at 35' and support by my fence in my backyard. Note, the tree is
> about ten feet from the fence, so the two legs be pulled to the fence
> thus the legs will not be in the sam palne as the apex of the loop.
>
> 3. Is the antenna known to cause RFI? I plan to use RG-8 coax (80
> feet) from the bottom of the antenna coupler to the rig.
>
> Thanks for any input.
>
> Mike

****
* Murray Kelly vk4aok mailto://mkelly@powerup.com.au *
* 29 Molonga Ter. / Graceville/ QLD. 4075/ Australia *
* ph/fax Intl+ 61 7 3379 3307 *
****

1174. Re: CAM?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 07:12:07 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3db64be1$0$4241$ba620e4c@news.skynet.be>
Source record: 132712

The resonance of the antenna is not function of the length of the transmission line, excepted if the transmission line is unbalanced and feed a balanced load. In this case the length of the outer shield is to be taken into account. It's then better to place a lot of ferrite toroids at the antenna end to prevent the outer shield of the coax to radiate (see Maxwell in the chapter on baluns in his book "Reflections ...").

If your transmitter has no antenna tuner, it's better to adapt the impedance with a balun 9:1 in case you will use a 450 ohms line.

73 de ON5MJ - Jacques

1175. Re: CAM???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 07:16:48 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3db64ce4$0$4269$ba620e4c@news.skynet.be>
Source record: 132713

Reg,

You are completely right. But he probably want to be reassured before he think he would do something wrong.

73 de ON5MJ - Jacques.

1176. Dear Reg Don't worry about it. Re: CAM???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 07:40:03 UTC
From: Kanberi <pti@capnet.com>
Message-ID: <3DB65253.5DC9BD3B@capnet.com>
Source record: 132715

I don't consider it wasting time. And anyway its my time.
Try not to loose any sleep over it.
I've seen you waste much more bandwidth arguing about the
most trivial crap.
Obviously I do build the antennas... understanding them is what
I'm trying to do.

Reg Edwards wrote:

> Dear enquirer,
>
> For much less than the time you waste making enquiries on this newsgroup and
> receiving conflicting answers you can set up an experimental antenna at
> mnimum cost and really learn something

1177. Re: CAM???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 07:42:48 UTC
From: Kanberi <pti@capnet.com>
Message-ID: <3DB652F8.A95978EE@capnet.com>
Source record: 132716

This is a NG. If any of my posts bother anyone just filter me.
I've seen some of the most informative threads come about
after posting some of my questions.

ON5MJ wrote:

> Reg,
>
> You are completely right. But he probably want to be reassured before he
> think he would do something wrong.
>
> 73 de ON5MJ - Jacques.

1178. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 07:59:40 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3db656ec$0$4263$ba620e4c@news.skynet.be>
Source record: 132714

I have a question.

Can someone explain me (from the theoretical point of view) how 4 radials at a 1/4 wave height can replace 120 radials at the ground level. In my mind I have always thought that the radials are there to produce a mirror to the radiating 1/4 wave element. If you elevate the all system why is it less true? Because after all, the radials collect the RF currents and close the path.

73 de ON5MJ - Jacques.

1179. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 10:42:27 UTC
From: k1bqt@aol.com
Message-ID: <20021023064227.10406.00013153@mb-fx.aol.com>
Source record: 132717

"...we'll compare your computer's design to some simple or arbitrary geometry
that I come up with and see if it is significantly different."

Gosh Chip, there it is--an open invitation to hit him with your best shot.
Let's see what those monkeys Au Gogo can do!

Rick K1BQT

1180. Re: Delta Loop Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 10:50:25 UTC
From: Larry Gauthier <larryg_at_ismi.net>
Message-ID: <urcvndi0n8uq52@corp.supernews.com>
Source record: 132718

Mike,

Since it sounds like you want a "one size fits all" delta loop, I am not sure that the following discourse will be helpful to you. I have tried several random length (non-resonant) loops and been disappointed - dipoles did a better job. However, I have found that resonant loops work great, so perhaps you could manage to cut this thing (these things?) to a resonant frequency and get better performance? If you can, here's some of my delta loop experience:

I am using two full-wave delta loops here - one horizontally polarized (40 meters, 143 total feet) and one vertical (30 meters, 103 total feet). They are both equilateral triangles (all sides of equal length), and I used the formula 1005 / frequ(MHz) for the initial length - although in practice I have found the correct divisor to be closer to 1030 for the desired resonant frequency. Since the natural impedence of a delta loop is around 100 ohms, I feed each loop with a random length of RG/8 + 1/4 wavelength of RG/6 to accomplish low SWR. The usable bandwidth of both antennas (SWR less than 2:1) is much broader than either band, so no tuner is necessary when used on their design band. The 40 meter mostly-horizontal loop is fed at an upper corner (my tower supports this corner), and I find the radiating pattern to be _very_ directional - away from the fed point toward the opposite side. The 30 meter vertical loop is also supported by the tower, exhibits no noticeable direction pattern [although EZNEC says there should be a slight preference in the direction of the elbow] and is fed 1/4 wavelength down from the apex to provide vertical polarity.

I like to work DX here, and due to previous bad experience with tuners and a G5RV (managed to get my WANTV - worked all neighbors' TVs - award in one weekend!) I shy away from non-resonant antennas. Due to your circumstances, you do not have that option. BUT - you might be able to optimize the antenna for a particular band by cutting it to resonance on your favorite band and then using the tuner for operation on other bands. I found that delta loop performance sufffers as the shape varies from a perfect triangle, so would suggest that you design for "equilateral" rather "as long as possible, even if it means that one leg is 20 feet longer than the others".

SOooo, if I have managed to sell you on the "equilateral, resonant on one favorite band and tuned on the others" idea... with the lengths you're considering, it sounds like you have room for a full wave loop on 30 meters (are you a CW kinda' guy?) or a wave-length-multiple on 10 - 20.

-larry
K8UT

"m" <n4bs2002@yahoo.com> wrote in message
news:b09fcb6a.0210220848.c9124a2@posting.google.com...
> I recently moved to my new home with antenna restrictions; hoever, I
> have been authorized to install a wire antenna. I hav a 40 foot tree
> on my postal stamp size lot, so I would like to install a delta loop.
> I read the article in QST (May 2000) about a stealthy delta (p.47-48.
> I have a couple question that I hope someone can answer my questions
> before I decide.
>
> 1. Does the triangle have to be equilateral (all size of equal
> lenght? I planning a delta loop with 30' x 30' x 50'. The base of
> the antenna will be 50' and will be conntected to a SGC-237 antenna
> coupler.
>
> 2. How does this antenna perform? I don't have EZNEC to model the
> antenna. I plan to work 10-80 meters. The antenna will be installed
> at 35' and support by my fence in my backyard. Note, the tree is
> about ten feet from the fence, so the two legs be pulled to the fence
> thus the legs will not be in the sam palne as the apex of the loop.
>
> 3. Is the antenna known to cause RFI? I plan to use RG-8 coax (80
> feet) from the bottom of the antenna coupler to the rig.
>
> Thanks for any input.
>
> Mike

1181. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 11:29:54 UTC
From: fractenna@aol.com
Message-ID: <20021023072954.20940.00003452@mb-mn.aol.com>
Source record: 132619

>
>"Fractenna" <fractenna@aol.com> wrote in message
>news:20021021223606.20918.00003412@mb-mn.aol.com...
>>
>> One last time: Steve, are you satisfied with the FOM? I will wait for your
>> final presentation of it before commencing the challenge. Take your time;
>no
>> rush from this end.
>>
>> 73,
>> Chip N1IR
>>
>
>Chip,
>
>To be quite honest, I really don't care about the FOM, the antenna
>optimization or the challenge.
>
>As I initially stated, I would prefer not to use an FOM. I would be
>satisfied if your computer GO came up a design, within the specified
>physical constraints, that had maximum radiation resistance and maximum
>bandwidth. I'm curious to see your computer's solution, especially how many
>GO attempts it took to arrive at the solution. Then, we'll compare your
>computer's design to some simple or arbitrary geometry that I come up with
>and see if it is significantly different.
>
>Steve VE9SRB
>

Steve,

The days of inspired empiricism are over for this field, and we all need to accept that the 'black art' has--not will--succumbed to something at least more inductive, if not deductive. At the very least, this is a design GUIDE if not a design DETERMINER.

If you can arrive at an 'optimized' design by a slap of solder here, a curve of wire there.. then the laws of physics can be invoked to replicate or exceed through simulation.

The issue of whether your care PERSONALLY has nothing to do with the requirements of SCIENCE.

I am a scientist, and I expect you to honor the fact that a colleague's time is valuable, rather than implying:, 'oh, yeh, I don't know,well... try this and go away'.

I await your thoughtful and final suggestion on the FOM.

Cordially,

Chip N1IR

1182. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 11:35:57 UTC
From: fractenna@aol.com
Message-ID: <20021023073557.20940.00003453@mb-mn.aol.com>
Source record: 132620

>"...we'll compare your computer's design to some simple or arbitrary geometry
>that I come up with and see if it is significantly different."
>
>Gosh Chip, there it is--an open invitation to hit him with your best shot.
>Let's see what those monkeys Au Gogo can do!
>
>Rick K1BQT
>

Invoke the same methodology to the sim as the person.

Why, pray, is that apparently so difficult for you and Steve to see?

Also, Steve already agreed and provided an FOM. I am ,collegially, jogging him to be thoughtful in that choice and will magnanimously accept a modification from him.In fact, I openly offered to have him consult all those colleagues he talks to about fractal antennas--at least some of which I know are familiar with computer sims in antennas.

This is a credibility issue Rick. I am of the opinion that Steve possesses the knowledge and credibility to do this right, as any scientist should.

Enough said. I am off to fab antennas early. I look forward to Steve's final FOM at his convenience. As I said, no rush.

73,
Chip N1IR

1183. Re: CAM???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 11:36:29 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3db689bd$0$4245$ba620e4c@news.skynet.be>
Source record: 132621

I do agree with you too. You have the right to post your questions. I was only telling that I share the opinion about "cut and try" but I'm not bother by your posts. Hope ham spirit will prevail.

For the rest many questions lead always to interesting points of view.

73 de ON5MJ - Jacques :-))

1184. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 11:41:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urd2o8ogh51bd4@corp.supernews.com>
Source record: 132622

Suppose one ampere of current flows from the center conductor of your coax into the base of a vertical antenna. Then one ampere must flow back into the shield connection, which is connected to the radials. If the antenna is very far from ground, there would be no loss except the small and insignificant (assuming the antenna isn't too short) conductor loss -- the radial currents are induced by coupling to the vertical, and the path between them is air.

But if you put the radials on or under the ground, some current flows back to the coax shield through the ground (eventually getting to and flowing in the radials). This causes I^2 * R loss, where R is the resistance of the path the current takes. Current is induced in the ground and the radials by coupling to the vertical portion. The current in the ground creates a field that induces current in the radials, and the radial current is collected at the coax connection.

An elevated radial system is between these two extremes. Most of the field from the vertical is "intercepted" by the radials -- that is, the vertical induces more current in the radials than it does in the ground. So the loss is lower than for ground level or buried radials, unless there are very many ground level or buried radials.

The idea of a "mirror" is an oversimplification that doesn't really have any physical basis. The signal from the vertical does strike and (imperfectly) reflect off the ground, but a little simple geometry shows that most of the low angle reflection takes place much farther from the vertical than most ground systems extend. So the radial ground system doesn't have much effect on the reflection, and therefore the pattern, except at high elevation angles.

Roy Lewallen, W7EL

ON5MJ wrote:
> I have a question.
>
> Can someone explain me (from the theoretical point of view) how 4 radials at
> a 1/4 wave height can replace 120 radials at the ground level. In my mind I
> have always thought that the radials are there to produce a mirror to the
> radiating 1/4 wave element. If you elevate the all system why is it less
> true? Because after all, the radials collect the RF currents and close the
> path.
>
> 73 de ON5MJ - Jacques.
>
>

1185. Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 12:15:54 UTC
From: Al <ABurzynski@nojunk.satx.rr.com>
Message-ID: <_pwt9.195977$121.5526195@twister.austin.rr.com>
Source record: 132624

Does an antenna tuner improve the signal leaving the antenna or is it there strictly for the transmitter to see 50-ohms? For example, if I do not have a tuner and my transmitter, line, and antenna are all perfect 50-ohm and I transmit 100 watts, all of it is radiated by the antenna (not counting trivial losses). If I switch to a different band where the antenna is no longer the proper impedance, and I transmit with a not-too-high swr, the antenna radiates say 75 watts and 25 goes to (I don't know where). If I now add an antenna tuner and transmit the same 100 watts, the antenna radiates 75 watts and the tuner consumes 25 watts. I assume therefore that my signal output from the antenna was not improved in any way due to the addition of the tuner. Am I correct here or am I missing something?

Is the same thing true for receiving in the situation above? Will I improve the signal at my receiver with an antenna tuner or is the tuner simply consuming its share (25 percent in example above) of the signal?

In other words, why (the true reason for) do I need an antenna tuner for transmitting or receiving?

I appreciate all comments. Thank you.

Al
KA5JGV

1186. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 12:45:17 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3db699dd$0$6004$ba620e4c@news.skynet.be>
Source record: 132625

If you put an antenna tuner, this one will not "eat" the reflected power. At his turn, it will reflect the reflected power in phase with the forward power to the antenna so that finally the radiated power will be 100 w (minus a very small loss in HF bands depending on the SWR). See Maxwell book for a deeper explanation. He also explains why to put the tuner in the shack instead of at the antenna because there is very few difference (in HF certainly).

In reception, the tuner will act thus as an impedance adapter and will contribute to increase the signal level provided that the input impedance of the receiver is the same than the one at output of the transmitter. Sometimes it is easy to preset the tuner for transmission only in receiving. The tuner will also act as a filter (Low-pass or high-pass or band-pass depending of the circuit in use).

73 de ON5MJ - Jacques.

1187. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 13:14:16 UTC
From: Pappy@USA.net
Message-ID: <3DB6A0A8.4A770716@USA.net>
Source record: 132626

Not receiving any responses to my query, I can only presume that "none" of
you use a commercial made vertical.

Which I find totally impossible.

Pappy@USA.net wrote:

> I am going to purchase a new vertical HF antenna, my problem is which
> one:
>
> MFJ-1798 or GAP Titan DX
>
> Has any one here had any experience with either of these antennas?
>
> Or, what vertical have you had a pleasant or unpleasant experience with.
>
> I chose these two from a host of others brands and models.
>
> Your assistance would be appreciated.
>
> 73's

1188. Re: Dear Reg Don't worry about it. Re: CAM???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 13:30:40 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ap689v$8s3$1@venus.btinternet.com>
Source record: 132628

Dear Kanberi, It seems I have inadvertently caused some annoyance by allowing brief advice to be misconstrued as personal criticism. I am very sorry.

As you say, I am sure you have learned a lot from this newsgroup. I have learned quite a lot myself. On the other hand, when a learner is obliged to make a choice between information and mis-information there is a 50-50 chance of being misinformed. The probablities remain the same even if one adviser has a better 'gift of the gab' than the other.

When there are several conflicting replies to questions (there are arguments galore) is it a good idea to take a majority vote?

There's one thing for certain, all that appears on these walls is provided with the best of intentions.

I see CAM also replied to your questions. To insure against further misunderstanding it must be said that all advice from CAM on dipoles and feeders is invariably of the highest quality. ;o)

Yours, Reg, G4FGQ
==========

"Kanberi" wrote -
> I don't consider it wasting time. And anyway its my time.
> Try not to loose any sleep over it.
> I've seen you waste much more bandwidth arguing about the
> most trivial crap.
> Obviously I do build the antennas... understanding them is what
> I'm trying to do.
>
>
>
> Reg Edwards wrote:
>
> > Dear enquirer,
> >
> > For much less than the time you waste making enquiries on this newsgroup
and
> > receiving conflicting answers you can set up an experimental antenna at
> > mnimum cost and really learn something
>

1189. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 13:30:41 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ap68a1$8s3$2@venus.btinternet.com>
Source record: 132627

A tuner located at the transmitter end of the transmission line has no effect whatsoever on the behaviour of the line, the line SWR, or of the antenna itself.

The sole but essential purpose of the tuner is to ensure the transmitter is correctly loaded. (Usually with 50 ohms). It is an impedance transformer. It transforms the impedance seen looking into the feedline to the required transmitter load resistance.

It has nothing to do with any imaginary, confusing, so-called forward and reflected power.

Reg, G4FGQ

1190. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 13:32:59 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB6A50B.727FD389@cwis.net>
Source record: 132629

Al,
Antenna tuners ~can~ improve your signal by matching
impedances and letting your transmitter 'work' into a
load it 'likes', and so produce full power. Some of that
power may be lost in the antenna system (antenna and feed
line), but not because the transmitter is 'cutting back' from
an improper impedance match.
Most well built tuners have much less than 25%, closer
to 5-10%, or less, probably. If you exceed the tuner's
ratings/capabilities, naturally the losses will be greater.
I think that the assumption that 25 watts is lost in the
tuner isn't necessarily correct. That 25 watts may be lost
in the antenna system, but I doubt if it's in the tuner.
Tuners don't do 'miracles', they just match impedances.
'Doc

1191. Re: Diamond X6000A or Comet GP-98 - Which one ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 13:53:05 UTC
From: Bill Grimwood <bill@grimwood.net>
Message-ID: <urddoulfk1kea4@corp.supernews.com>
Source record: 132632

I have the Diamond 2000A and it is well constructed and tunable. I have
been real satisfied with it. It is 6 meters, 2meters and 70 centimeters.

K1WEG

"ukmonitor" <ukmonitor@hotmail.com> wrote in message
news:ed985fdb.0210220725.5af31cc6@posting.google.com...
> Has anyone had experience of the Tri-band omni verticals made by Diamond
and Comet.
>
> Which one is the best constructed / performer ?
>
> Diamond X6000A
>
> or
>
> Comet GP-98
>
> Any comments welcome.
>
> UKM

1192. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 13:59:08 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailnospamorama.com>
Message-ID: <_%At9.2070$bS5.662@news.bellsouth.net>
Source record: 132644

Would someone please, tell me the name of the Maxwell book. it sounds like
something I would like to read.
Thanks
--
73,
Chuck
KE4ETH

1193. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 14:05:02 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <VLydnSIaP4f8MSugXTWc2Q@comcast.com>
Source record: 132630

Doc,

I have measured the output power of my IC756 with and without the antenna tuner. When feeding a Hygain TH3MK4 the power out without the tuner is about 100W. With the tuner it is about 90W. The built in tuner is fairly low power. I suspect a 2KW tuner will have loss in the range you suggest due to use of higher Q coils. (Measured SWR was around 1.2).

Tam/WB2TT
"'Doc" <w5lz@cwis.net> wrote in message news:3DB6A50B.727FD389@cwis.net...
> Al,
> Antenna tuners ~can~ improve your signal by matching
> impedances and letting your transmitter 'work' into a
> load it 'likes', and so produce full power. Some of that
> power may be lost in the antenna system (antenna and feed
> line), but not because the transmitter is 'cutting back' from
> an improper impedance match.
> Most well built tuners have much less than 25%, closer
> to 5-10%, or less, probably. If you exceed the tuner's
> ratings/capabilities, naturally the losses will be greater.
> I think that the assumption that 25 watts is lost in the
> tuner isn't necessarily correct. That 25 watts may be lost
> in the antenna system, but I doubt if it's in the tuner.
> Tuners don't do 'miracles', they just match impedances.
> 'Doc

1194. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 14:05:18 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <7qu2Pa1FXVpm3=UpMffBEttKHhug@4ax.com>
Source record: 132631

Pappy@USA.net wrote:

>Not receiving any responses to my query, I can only presume that "none" of
>you use a commercial made vertical.
>
>Which I find totally impossible.

The advice you received on the Butternut was excellent. You might go to the
Bencher web site, click on "Butternut" and read some of their tech papers.

I had good luck with a Cushcraft R-5, but it is no longer made.

Have fun...

Bob
k5qwg

>
>Pappy@USA.net wrote:
>
>> I am going to purchase a new vertical HF antenna, my problem is which
>> one:
>>
>> MFJ-1798 or GAP Titan DX
>>
>> Has any one here had any experience with either of these antennas?
>>
>> Or, what vertical have you had a pleasant or unpleasant experience with.
>>
>> I chose these two from a host of others brands and models.
>>
>> Your assistance would be appreciated.
>>
>> 73's

1195. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 14:42:10 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <kmcdruc2htv2090lphcc41psaj593fqjcu@4ax.com>
Source record: 132634

On Mon, 21 Oct 2002 12:30:31 -0400, Pappy@USA.net wrote:

>I am going to purchase a new vertical HF antenna, my problem is which
>one:
>

There is a report published by Champion Radio Product titled "HF
Vertical Performance Test Methods & Results" by N0AX and K7LXC showing
field strength measurements they made on several commercial multi-band
amateur HF verticals. The results are interesting in that there was no
clear cut winner.

Considering the cost of some of these antennas I suggest it would be a
good investment in purchasing and reading this report before you spend
your hard earned $$. You can find more info at
http://www.championradio.com/

73
Danny, K6MHE

1196. Re: CAM?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 14:56:43 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB6B8AB.A78401@ieee.org>
Source record: 132633

Kanberi wrote:
>
> I'm going to convert my 80 m dipole (123' total length) to what
> you have. I'm assuming since its close to 130 it will make no
> difference.

There will be some difference in the required length of ladder-
line.

> Will the 80 m dipole resonate at about the same point whether
> I feed it with 50 ohm coax or 450 ohm?

The 80m *dipole* will resonate at about the same point but the
antenna system will not. With 50 ohm coax, the feeder is not
tuned. With ladder-line, the system is tuned, i.e. the feeder
acts somewhat like a tuned stub and changes the system resonant
frequency, sometimes drastically.

> Don't I need a 9:1 balun to bring the 450 ohms down to 50 ohms?
> 450/50=9

If you use 450 ohm ladder-line on a 50 ohm antenna, the SWR will
be 9:1. If the ladder-line length is 1/2 wavelength, that 50 ohms
will repeat at the transmitter so no, you don't need a 9:1 balun.
All you need is a 9:1 SWR.

> After the 1:1 Balun is 50 ohm coax which you just screw into
> a 50 ohm jack on the tuner right???

I screw it into my transmitter - no conventional tuner required.
Varying the length of the ladder-line performs the tuning function.

> Is the 50 ohm coax length critical??

No.
--
cheers, CAM http://www.qsl.net/w5dxp

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1197. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 15:06:32 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ap6dto$1tj$0@208.207.71.177>
Source record: 132635

Reg Edwards wrote:
>
> A tuner located at the transmitter end of the transmission line has no
> effect whatsoever on the behaviour of the line, the line SWR, or of the
> antenna itself.
>
> The sole but essential purpose of the tuner is to ensure the transmitter is
> correctly loaded. (Usually with 50 ohms). It is an impedance transformer.
> It transforms the impedance seen looking into the feedline to the required
> transmitter load resistance.
>
> It has nothing to do with any imaginary, confusing, so-called forward and
> reflected power.

To expand a bit on Reg's post, on a practical level-

The tuner (when properly adjusted) matches your radio (on both transmit and receive) to your *antenna system* - the feedline and the antenna itself - such that the radio sees the proper impedance to operate as it was designed. Thus the system transfers the maximum possible level of RF on both transmit and receive.

Forget about SWR and just tune for maximum forward power. When you reach that point it will also be maximized for receive. That's the reciprocity of antenna and feedline systems. When it's tuned for transmit it will also be tuned for receive on a given frequency.

It is left it up to you to see to it that you use a feedline of good enough quality that it introduces losses that are moderate enough so that the RF moving toward (and from) your antenna is not seriously attenuated and arrives at the antenna (and receiver) substantially intact. Note that some losses are always present in every real-world installation and that almost all common coaxial feedline you will encounter is useable on the HF portion of the spectrum. The stuff does deteriorate some with time and exposure to the elements, but at HF it has to be pretty bad to become really useless. If you intend to minimize losses, use good coax. But realize that even as high a loss as 3db is half your output power, and that means only about a half an S-unit on the other station's receiver.

So one needs to keep it all in perspective. Would you stay off the air rather than suffer a half db loss on the other end of the contact?

Of course a poorly designed or implemented antenna won't work any better even with the best quality feedline. It will still be a poor radiator. But that doesn't mean it won't be useable to make contacts on

the air. Sometimes installing a good antenna just isn't possible. As someone said, a wet noodle will radiate RF, just not very well. And higher is almost always better. But many hams have done quite well with low, feeble radiators.
Been there and done that at times when it was necessary.

Also note that most modern radios need no help from the tuner on receive. You probably won't be able to detect much, if any, difference between a tuner/antenna and a random piece of untuned wire on receive. So the tuner is used basically to match your transmitter to the antenna system. The receiver would work as well without it.

Dick W0EX

1198. Re: CAM?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 15:08:30 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB6BB6E.694E3D66@ieee.org>
Source record: 132636

ON5MJ wrote:
> The resonance of the antenna is not function of the length of the
> transmission line, excepted if the transmission line is unbalanced and feed
> a balanced load.

When the transmission line carries a relatively high SWR, the resonance of the *antenna system* is a function of the length of the *tuned feeder*. Feeding a resonant length dipole with 1/2 wavelength of ladder-line will cause the antenna system to resonate at the resonant length of the dipole. Any length other than a multiple of 1/2 wavelengths will cause the antenna system to resonate on some other frequency. Varying the length of the ladder-line feeding a dipole changes the resonant frequency of the antenna system.

> If your transmitter has no antenna tuner, it's better to adapt the impedance
> with a balun 9:1 in case you will use a 450 ohms line.

This is only true if the SWR on the ladder-line is 1:1 which it is not for a dipole. If the SWR on the ladder-line is not 1:1 (which it is not in this case) then a 9:1 balun is a poor choice since the impedance looking into the ladder-line will *NEVER* be 450 ohms. The possible impedances lie on the SWR circle on the Smith Chart. The center of the circle is 450 ohms and only exists for an SWR = 1:1.
--
cheers, CAM http://www.qsl.net/w5dxp

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1199. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 15:17:36 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB6BD90.DC4FE72D@ieee.org>
Source record: 132637

ON5MJ wrote:
>
> I have a question.
>
> Can someone explain me (from the theoretical point of view) how 4 radials at
> a 1/4 wave height can replace 120 radials at the ground level. In my mind I
> have always thought that the radials are there to produce a mirror to the
> radiating 1/4 wave element. If you elevate the all system why is it less
> true? Because after all, the radials collect the RF currents and close the
> path.

Consider one pair of radials routed in opposite directions. The currents in
those two radials are out of phase and thus the fields cancel at a distance.
If you elevate those radials high enough, the fields cancel before they
encounter the ground and thus avoid a lot of ground loss. With the radials
laying on the ground, the fields don't cancel before encountering the ground
and thus there is a reasonable amount of ground loss so you need lots of
radials to try to mimic a perfect conducting plane.
--
cheers, CAM http://www.qsl.net/w5dxp

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1200. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 15:22:03 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB6BE9B.4357052@ieee.org>
Source record: 132638

Al wrote:
> Does an antenna tuner improve the signal leaving the antenna or is it there
> strictly for the transmitter to see 50-ohms?

Yes, if the antenna tuner keeps your transmitter from folding back
on its output power then that will improve the signal leaving the
antenna. Matching a system allows maximum available power to be
radiated (or received).
--
cheers, CAM http://www.qsl.net/w5dxp

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1201. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 15:29:48 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB6C06C.29F6EBE4@ieee.org>
Source record: 132639

Reg Edwards wrote:
> It (antenna tuner) has nothing to do with any imaginary, confusing,
> so-called forward and reflected power.

Well Reg, an antenna tuner keeps the reflected waves from
changing the impedance the transmitter sees to something
other than the 50 ohms into which it has been designed to operate.

If a transmitter is designed to put out 70.7 volts at 1.414 amps
in phase, an antenna tuner keeps the reflected voltage and
reflected current from superposing with those desired values
and changing them to undesired values.
--
cheers, CAM http://www.qsl.net/w5dxp

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1202. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 16:48:38 UTC
From: lc <larryc@northwest.com>
Message-ID: <3DB6D2E6.30BF338@northwest.com>
Source record: 132640

Forgive my being so theoretically dense...but what about displacement currents and magnetic currents? Ground permittivity defines the quality of the capacitive dielectric, which defines the amount of image charge. "Good" permittivity doesn't transport conductive currents (J vector) but it does allow displacement (capacitive, D vector) currents. Burying radials affects displacement currents.

Would not elevating a radial system reduce the effects of poor ground displacement currents? Having two capacitors in series, to create the image charge?

Conductive currents (J) are far-field. Displacement currents are highest under one wavelength, and inductive currents (B vector) are highest, very close-in (under 0.1 wave). All three components add together.

Comments welcomed.
========
CAM wrote:

> ON5MJ wrote:
> >
> > I have a question.
> >
> > Can someone explain me (from the theoretical point of view) how 4 radials at
> > a 1/4 wave height can replace 120 radials at the ground level. In my mind I
> > have always thought that the radials are there to produce a mirror to the
> > radiating 1/4 wave element. If you elevate the all system why is it less
> > true? Because after all, the radials collect the RF currents and close the
> > path.
>
> Consider one pair of radials routed in opposite directions. The currents in
> those two radials are out of phase and thus the fields cancel at a distance.
> If you elevate those radials high enough, the fields cancel before they
> encounter the ground and thus avoid a lot of ground loss. With the radials
> laying on the ground, the fields don't cancel before encountering the ground
> and thus there is a reasonable amount of ground loss so you need lots of
> radials to try to mimic a perfect conducting plane.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
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Welcome to Oregon - "The Food Stamp State"

1203. Modeling hose clamps, element mounts and gamma matches with NEC2?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 16:52:31 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DB6D3CF.6F1318D5@netscape.net>
Source record: 132641

I have spent a great deal of time designing a 4 element yagi to meet my exact needs using NEC Win Plus+ (NEC2). I carefully remodeled the 4 element 12 meter Yagi from the ARRL handbook. Since I am reusing a old 4 element Yagi, I am accurately entering taper schedule. I am so happy with the design, I want to ensure the real world model is close as possible to what I've modeled and this has raised a few questions:

1) I want to use hose clamps so the elements are adjustable. Should I try to model these? Common sense tells me I would need to slightly shorten the elements...

2) What about the element to boom mounting plate? The plate is a 3.5" wide piece of aluminum with a 3/4" tube on it so that the 5/8" element passes through it. I modeled the 3.5" X 3/4" inner element piece, what what about the rest of the plate? This seems like it also might cause me to need to shorten the element length as well?

3) Lastly, I am going to use the gamma match that came with the antenna. I have 2 questions about this:
a) Do I need to compensate the driven element length because of the "shorting strap" and extra material added by the gamma itself? I just have a 50 Ohm source in the middle of the driven element and that's it.

b) The center of the gamma rod mounts offset from the center because of the mounting plate (it mounts 1.75" from the center). Should I try to rework this gamma match so that it taps in the center of the boom and element? Or can I offset the element in the mount so that the place where the gamma rod connects is the physically the center of the element length (I don't think so, but I'll ask)

Here is the manual for the antenna I am using:
http://www.majestic-comm.com/assembly/SUPPORT/M104C.PDF
It shows how everything fits together.

Thanks!

Scott.

1204. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 17:13:02 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <3DB6D89E.5398AB06@sympatico.ca>
Source record: 132642

Tarmo Tammaru wrote:
>
> Doc,
>
> I have measured the output power of my IC756 with and without the antenna
> tuner. When feeding a Hygain TH3MK4 the power out without the tuner is about
> 100W. With the tuner it is about 90W. The built in tuner is fairly low
> power. I suspect a 2KW tuner will have loss in the range you suggest due to
> use of higher Q coils. (Measured SWR was around 1.2).
>
> Tam/WB2TT

Where did you measure this power?
1. At the transmitter output, prior to the tuner,
2. At the tuner output,
3. At the antenna?

I have two rigs with antenna tuners and often get completely different
power and swr readings at the rig (output of the tuner) and 2 feet away
with a meter in the feedline. {the meters were in the line before I
installed these rigs in case you were wondering why}.

The readings are identical when feeding an antenna which is matched to
the feeline at the frequency in use.

Dave
VE3HLU

1205. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 17:32:37 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210230932.7a698f3d@posting.google.com>
Source record: 132643

"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message
news:<3db656ec$0$4263$ba620e4c@news.skynet.be>...
> I have a question.
>
> Can someone explain me (from the theoretical point of view) how 4 radials at
> a 1/4 wave height can replace 120 radials at the ground level. In my mind I
> have always thought that the radials are there to produce a mirror to the
> radiating 1/4 wave element. If you elevate the all system why is it less
> true? Because after all, the radials collect the RF currents and close the
> path.
>
> 73 de ON5MJ - Jacques.

They don't. Four radials at 1/4 wave up are about equal to 50-60
radials on a ground mount. At 1/2 wave up, then yes, 4 radials are
about equal to a ground mount with 120 radials. The ground plane needs
less radials as it gets higher, because the base of the antenna moves
farther away from lossy earth. You can use only one radial at 1/2 wave
up and still have high efficiency, but you would have rather poor
decoupling from the supporting mast, and a slightly skewed pattern
from the lack of balance or symmetry in the radial system. Two radials
give a fairly clean omni pattern, but I recommend no less than 3
radials for a true ground plane antenna. Maybe others can give a more
scientific explanation.. MK

1206. Re: Maxwells Book "Reflections II"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 18:01:53 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <luBt9.9888$C53.308299@news2.west.cox.net>
Source record: 132645

Chuck -- Maxwells book Reflections II - Transmission Line and Antennas, by
M. Walter Maxwell, W2DU is available at World Radio Magazine -- URL:
http://www.wr6wr.com/
Select Products, then books.

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"Chuck/KE4ETH" <chuck_hawks@hotmailnospamorama.com> wrote in message
news:_%At9.2070$bS5.662@news.bellsouth.net...
> Would someone please, tell me the name of the Maxwell book. it sounds like
> something I would like to read.
> Thanks
> --
> 73,
> Chuck
> KE4ETH
>
>
>
>

1207. Re: CAM???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 18:33:07 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DB6EB54.9BB9321E@shaw.ca>
Source record: 132646

CAM wrote:
>
> Kanberi wrote:
> >
> > What were the dimensions or your open wire fed multi-band
> > antenna??
> >
> > I have an 80 meters antenna that I want to make like yours
> > with opne wire feed line. I hope its long enough to work like
> > yours.
> >
> > Please give specifics especially on the feedline type, where to
> > buy and dimensions.
>
> Buy? Why buy an antenna that costs $20 to build? Details are on
> my web page. Exact dimensions are not important. Virtually
> any antenna around those dimensions can be tuned to resonance on
> all HF bands by varying the length of the ladder-line. The Wireman,
> (800)727-9473, sells the 450 ohm ladder-line as do a lot of other
> companies. I personally like The Wireman's #554, #14 stranded.
>
> > Did you just solder the feedline to antenna??
>
> Yep, with black tie-wrap strain relief.
>
> > Does feedline laying on a roof cause a problem?
>
> Depends on the roof and how wet it is. Laying on a roof causes
> dielectric losses especially in wet weather. I know a ham who
> glued plastic pop bottles to his roof and used them for stand-
> off insulators.
>
> > I want to switch to coax as I enter the house. Does this
> > cause a problem??
>
> Not if the ladder-line is the correct length and you have a
> functional 1:1 balun/choke at the balanced/unbalanced junction.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

I used pill bottles, and glued the caps to the roof, then
screwed/locked the bottle onto the cap. When I left,
I left the caps in place. You couldn't even see them unless
you really looked very closely!
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

1208. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 18:37:24 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <eL2dncWILOmocSugXTWcqg@comcast.com>
Source record: 132647

Dave,

The tuner is part of the radio, so I can't get at the point before the tuner. The meter was about 6 - 8 feet from the radio and about 75 feet from the antenna. When the tuner is turned off, relays inside the radio bypass it. Don't take the 10W differential as gospel. I didn't write down the numbers because I never use the tuner. I suspect it was no more than 10W.

Tam/WB2TT
"Dave Holford" <holford@sympatico.ca> wrote in message
news:3DB6D89E.5398AB06@sympatico.ca...
>
>
> Tarmo Tammaru wrote:
> >
> > Doc,
> >
> > I have measured the output power of my IC756 with and without the
antenna
> > tuner. When feeding a Hygain TH3MK4 the power out without the tuner is
about
> > 100W. With the tuner it is about 90W. The built in tuner is fairly low
> > power. I suspect a 2KW tuner will have loss in the range you suggest due
to
> > use of higher Q coils. (Measured SWR was around 1.2).
> >
> > Tam/WB2TT
>
>
> Where did you measure this power?
> 1. At the transmitter output, prior to the tuner,
> 2. At the tuner output,
> 3. At the antenna?
>
> I have two rigs with antenna tuners and often get completely different
> power and swr readings at the rig (output of the tuner) and 2 feet away
> with a meter in the feedline. {the meters were in the line before I
> installed these rigs in case you were wondering why}.
>
> The readings are identical when feeding an antenna which is matched to
> the feeline at the frequency in use.
>
> Dave
> VE3HLU

1209. Re: Modeling hose clamps, element mounts and gamma matches with NEC2?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 18:49:11 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <e3mdru4nhm1dq0dqsosk50frrtlkhtrsrf@4ax.com>
Source record: 132648

On Wed, 23 Oct 2002 12:52:31 -0400, Scott <scott2rp789@netscape.net>
wrote:

|I have spent a great deal of time designing a 4 element yagi to meet my
|exact needs using NEC Win Plus+ (NEC2). I carefully remodeled the 4
|element 12 meter Yagi from the ARRL handbook. Since I am reusing a old 4
|element Yagi, I am accurately entering taper schedule. I am so happy
|with the design, I want to ensure the real world model is close as
|possible to what I've modeled and this has raised a few questions:
|
|1) I want to use hose clamps so the elements are adjustable. Should I
|try to model these? Common sense tells me I would need to slightly
|shorten the elements...

Don't bother.
|
|2) What about the element to boom mounting plate? The plate is a 3.5"
|wide piece of aluminum with a 3/4" tube on it so that the 5/8" element
|passes through it. I modeled the 3.5" X 3/4" inner element piece, what
|what about the rest of the plate? This seems like it also might cause me
|to need to shorten the element length as well?

Leeson in "Physical Design of Yagi Antennas" has info on calculating
the equivalent diameter of various element to boom clamps.

You must consider not only the effects of the plate but that of the
diameter of the boom. The data summarized are a bit complicated but
I'll try to explain them here.

Let W = width of the mounting plate (3.5" in your case)

Let T = thickness of the mounting plate (?)

Let D = diameter of the element. (3/4")

Then:

A = (pi*D^2)/4 + T*W

P = pi*D + 2*(W + T)

the equivalent diameter of this is then:

D_equiv = ((A/pi)^.5 + P /(2*pi))

So you plop this into your model as the diameter of the element with
the length equal to the length of the PLATE. Whatever 3/4" tubing (if

any) that extends beyond the plate should be modeled as---you guessed it--- 3/4" tubing. If you are using the mounting method in the Antenna Handbook then this should do it. If you are using what is shown in your reference, it looks like the "plate" is really one-sided as contrasted to what Leeson uses. There is probably some difference but I seriously doubt that it is significant.

A rule of thumb (from Lawson's "Yagi Antenna Design") for the plate clamp is that the effect of the boom diameter is to reduce the electrical length of the elements by 6% of the boom diameter, which again is insignificant.

|
|3) Lastly, I am going to use the gamma match that came with the antenna.
|I have 2 questions about this:
| a) Do I need to compensate the driven element length because of the
|"shorting strap" and extra material added by the gamma itself? I just
|have a 50 Ohm source in the middle of the driven element and that's it.

No, the gamma adjustment procedure will take care of this. The gain and F/B are not a strong function of the driven element length. You don't need to be particularly accurate in determining the feedpoint impedance since you will be taking care of that with the matching system and gammas (IMHO) are not particularly easy to model.

|
| b) The center of the gamma rod mounts offset from the center because of
|the mounting plate (it mounts 1.75" from the center). Should I try to
|rework this gamma match so that it taps in the center of the boom and
|element? Or can I offset the element in the mount so that the place
|where the gamma rod connects is the physically the center of the element
|length (I don't think so, but I'll ask)

I would prefer to have the coax connector mounted on the boom. That is the electrical center of the element. Don't try to fudge the element off-center.

Have fun,

Wes

1210. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 19:43:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urduua2ha00h4b@corp.supernews.com>
Source record: 132649

Al wrote:
> Does an antenna tuner improve the signal leaving the antenna or is it there
> strictly for the transmitter to see 50-ohms? For example, if I do not have a
> tuner and my transmitter, line, and antenna are all perfect 50-ohm and I
> transmit 100 watts, all of it is radiated by the antenna (not counting
> trivial losses). If I switch to a different band where the antenna is no
> longer the proper impedance, and I transmit with a not-too-high swr, the
> antenna radiates say 75 watts and 25 goes to (I don't know where). If I now
> add an antenna tuner and transmit the same 100 watts, the antenna radiates
> 75 watts and the tuner consumes 25 watts. I assume therefore that my signal
> output from the antenna was not improved in any way due to the addition of
> the tuner. Am I correct here or am I missing something?

The antenna radiates all the power that gets to it (less any lost in the resistance of the antenna itself and ground system) regardless of the SWR on the line. If you put a tuner at the rig, all it does is to match the impedance of the rig to the impedance the rig is putting its power into. Modern rigs will put nearly full power into impedances corresponding to up to 2 or 3:1 SWR on a 50 ohm line, but if the impedance goes beyond that, the rig will reduce power. When that happens, a tuner is necessary to bring the impedance back to a value the rig can deliver power into.

A moderate SWR on a line of moderate loss doesn't appreciably affect the fraction of power that gets from the rig or tuner to the antenna. Very high SWR, or moderate SWR on a very lossy line, can increase the line loss somewhat. That's why open wire line is the choice for grossly mismatched antennas -- if fed with coax, the SWR can be high enough to noticeably increase line loss.

And by the way, if you lose 25 of your 100 watts somewhere in the process, don't lose too much sleep -- that's only 1 dB.

> Is the same thing true for receiving in the situation above? Will I improve
> the signal at my receiver with an antenna tuner or is the tuner simply
> consuming its share (25 percent in example above) of the signal?

On HF, you probably won't improve the signal. Effecting an impedance match at the rig will increase the *amplitude* of the signal getting to the receiver. But it'll increase the amplitude of the noise by the same amount. At HF, this noise is almost always much larger than the receiver's internal noise, so the tuner has no effect on overall signal/noise ratio. You can compensate completely by turning up the receiver gain control. If the mismatch is so bad or the antenna so poor that the receiver noise dominates, then a tuner will make an improvement by bringing the signal and external noise above the receiver's noise.

You can detect the condition when this is necessary -- switch from the antenna to a dummy load right at the receiver input. If the noise level doesn't change, the receiver noise is dominating and a tuner would help.

> In other words, why (the true reason for) do I need an antenna tuner for
> transmitting or receiving?

You need one for transmitting only if your rig reduces its power due to the mismatch. You need one for receiving only if the mismatch is so severe or the antenna so poor that your noise level doesn't change when you switch from the antenna to a dummy load.

Roy Lewallen, W7EL

1211. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 19:44:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urdv0tdnp7pl7f@corp.supernews.com>
Source record: 132650

Guilty as charged.

Roy Lewallen, W7EL

Pappy@USA.net wrote:
> Not receiving any responses to my query, I can only presume that "none" of
> you use a commercial made vertical.
>
> Which I find totally impossible.

1212. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 19:56:50 UTC
From: Henrik <henrik>
Message-ID: <3db6ff02$0$34825$edfadb0f@dspool01.news.tele.dk>
Source record: 132651

"Al" <ABurzynski@nojunk.satx.rr.com> wrote in message
news:_pwt9.195977$121.5526195@twister.austin.rr.com...
> Does an antenna tuner improve the signal leaving the antenna or is it
there
> strictly for the transmitter to see 50-ohms? For example, if I do not have
a
> tuner and my transmitter, line, and antenna are all perfect 50-ohm and I
> transmit 100 watts, all of it is radiated by the antenna (not counting
> trivial losses). If I switch to a different band where the antenna is no
> longer the proper impedance, and I transmit with a not-too-high swr, the
> antenna radiates say 75 watts and 25 goes to (I don't know where). If I
now
> add an antenna tuner and transmit the same 100 watts, the antenna radiates
> 75 watts and the tuner consumes 25 watts. I assume therefore that my
signal
> output from the antenna was not improved in any way due to the addition of
> the tuner. Am I correct here or am I missing something?
>
> Is the same thing true for receiving in the situation above? Will I
improve
> the signal at my receiver with an antenna tuner or is the tuner simply
> consuming its share (25 percent in example above) of the signal?
>
> In other words, why (the true reason for) do I need an antenna tuner for
> transmitting or receiving?
>
> I appreciate all comments. Thank you.
>
> Al
> KA5JGV
>
Most likely, your transmitter will fold back energy output, if it looks into
an impedance different to 50 ohm.
Therefore, in an poorly matched situation, the energy available at the
antenna is not only reduced due to losses, but more significantly because
your transmitter does not deliver the energy, to secure survival of the
output stage....

Even if the match is correct, with aids of a well matched antenna at the
frequency, by a tuner or by other means, the radiated power may even be low,
f.ex. if the antenna is (too) short.

In my opinion, the tuner is only providing a match, so the transmitter can
deliver the RF energy. What happens thereafter is a different story....but
for a start, if rf is provided from the transmitter, you are likely to also

radiate a signal....

73,
OZ6F

1213. 5/8 wave formula

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 20:13:51 UTC
From: Alex <alex.draper1@rogers.com>
Message-ID: <3qDt9.53612$Q3S.9483@news01.bloor.is.net.cable.rogers.com>
Source record: 132652

Does anyone have the formula to measure a 5/8 wave vertical antenna?

Thank you.

1214. Anybody here use the Force 12 Sigma V? Opinions?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 20:38:29 UTC
From: oktx <you@somehost.somedomain>
Message-ID: <8A46F756C94F8127.5768ED6D4DAD2976.C639802C42A74919@lp.airnews.net>
Source record: 132653

What has been your experience with these? From what I've read on the eham.net site they look pretty good. This months QST magazine had a write up on 'em too. It was positive. I'm in a residential area so my choices are rather limited. This one looks to fit the bill. Looks easy too. http://force12inc.com/sigma5info-003.htm

Is this a good choice for a newby's first antenna?

How is the performance compared to similar products?

Where do you have it mounted? On the ground sitting in a bucket like they suggest? On a pole? On the roof? On a pole by the fence?

Has anyone mounted one horizontal? If so how did you do it?

Any and all comments are appreciated.

1215. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 20:53:23 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ap7282$h0e$1@venus.btinternet.com>
Source record: 132654

Cecil, I've been reading your stuff on tuners, forward and reflected power for years, so far as I can remember without comment. Because I can't disagree with what you say.

But in connection with the purpose of tuners at the output of transmitters, to mention reflections, imaginary reflected power, conjugate matches, even imaginary SWR, is no more than a confusing and entirely unnecessary complication.

The tuner is just an impedance transformer containing 2 or at most 3 L and C elements which should be allowed to do its simple but essential job free from the interfering smokescreen pouring from this newsgroup. Its function can be described in un-cluttered isolation.

It's all very learned and convincing. <grin>

Yours, Reg, G4FGQ

==========

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DB6C06C.29F6EBE4@ieee.org...
> Reg Edwards wrote:
> > It (antenna tuner) has nothing to do with any imaginary, confusing,
> > so-called forward and reflected power.
>
> Well Reg, an antenna tuner keeps the reflected waves from
> changing the impedance the transmitter sees to something
> other than the 50 ohms into which it has been designed to operate.
>
> If a transmitter is designed to put out 70.7 volts at 1.414 amps
> in phase, an antenna tuner keeps the reflected voltage and
> reflected current from superposing with those desired values
> and changing them to undesired values.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
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1216. Re: 5/8 wave formula

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 21:06:56 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB70F70.1B398D7@cwis.net>
Source record: 132655

Alex,
Try using 620 / f in Mhz. That will get you real close.
'Doc

1217. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 21:13:59 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3db71119$0$4261$ba620e4c@news.skynet.be>
Source record: 132656

Hi everyone,

Thank you for participating to my question.

I have noticed for many years that 4 radials (even 3) at 1/4 wavelength height are equivalent to 120 radials at ground level. OK.

But now, what about the EM field between the (few) radials and under the radials ? This is what I don't catch.

73 de ON5MJ.

1218. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 21:36:41 UTC
From: k9sqg@aol.com
Message-ID: <20021023173641.15229.00002951@mb-de.aol.com>
Source record: 132657

Guess my email didn't get through. I prefer the GAP Challenger and I've owned Hustler, Cushcraft, Hy-Gain, not to mention homebrewing.

73s,

Evan

1219. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 21:39:45 UTC
From: k9sqg@aol.com
Message-ID: <20021023173945.21801.00009339@mb-de.aol.com>
Source record: 132658

Perhaps the lack of "responses" was due to your invalid email address?

1220. Re: Anybody here use the Force 12 Sigma V? Opinions?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 21:42:26 UTC
From: dplatt@radagast.org
Message-ID: <ure5u2hl99aqe6@corp.supernews.com>
Source record: 132659

>What has been your experience with these? From what I've read on the
>eham.net site they look pretty good. This months QST magazine had a
>write up on 'em too. It was positive. I'm in a residential area so my
>choices are rather limited. This one looks to fit the bill. Looks easy
>too. http://force12inc.com/sigma5info-003.htm

Their Sigma-SV5 looks interesting as well... basically the same as a
Sigma 5 but it doubles as a working TV antenna, and is just _barely_
short enough to fall within the FCC's OTARD rules (the ones which say
"Neither local zoning laws, nor CC&Rs, can prevent you from mounting a
TV antenna on your roof.").

Anecdotally - a guy brought a Sigma 6 to a ham-club meeting in my
area, recently, to show it to the other members. He was most
complementary about his performance, saying that he'd set it up in his
back yard that afternoon and almost immediately busted a pileup to a
ham operating out of one of the Antarctica research stations.

Haven't used one myself.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1221. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 21:45:09 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB71865.A9E05C4C@ieee.org>
Source record: 132660

Reg Edwards wrote:
> But in connection with the purpose of tuners at the output of transmitters,
> to mention reflections, imaginary reflected power, conjugate matches, even
> imaginary SWR, is no more than a confusing and entirely unnecessary
> complication.

Reg, there exists a laboratory signal generator equipped with a circulator
which drives a dummy load. All the reflected power incident upon the signal
generator is tapped off from the system and is dissipated in the dummy load.
Would you be willing to grab a 100w resistor dissipating 100w of reflected
power and tell us that the blisters you get on your hand are imaginary? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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1222. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 21:48:03 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB71913.CC28CC48@ieee.org>
Source record: 132661

ON5MJ wrote:
> But now, what about the EM field between the (few) radials and under the
> radials ? This is what I don't catch.

Consider the radials as a special case transmission line.
The fields from complementary radials cancel under the same
laws of physics as they do in a transmission line.
--
cheers, CAM http://www.qsl.net/w5dxp

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1223. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 22:24:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ure8d8lrp4ikb2@corp.supernews.com>
Source record: 132662

The field under the radials is the sum of the fields caused by the currents in the vertical and all the radials. Directly under the center, the fields from the radials cancel, and there is no field from the vertical, so the total field there is (theoretically) zero. Away from the center, the magnitude of the field depends on where you are.

You can get actual values of V/m and A/m with the free demo version of EZNEC from http://eznec.com. The accuracy of the result in this case won't suffer much from the demo's 20 segment limitation.

Roy Lewallen, W7EL

ON5MJ wrote:
> Hi everyone,
>
> Thank you for participating to my question.
>
> I have noticed for many years that 4 radials (even 3) at 1/4 wavelength
> height are equivalent to 120 radials at ground level. OK.
>
> But now, what about the EM field between the (few) radials and under the
> radials ? This is what I don't catch.
>
> 73 de ON5MJ.
>
>

1224. Re: Modeling hose clamps, element mounts and gamma matches with NEC2?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 22:42:17 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <ha9eru0tfpnuikrckkg1icea3bf3h9b65l@4ax.com>
Source record: 132663

On Wed, 23 Oct 2002 11:49:11 -0700, Wes Stewart <n7ws@nowhere.com>
wrote:

>So you plop this into your model as the diameter of the element with
>the length equal to the length of the PLATE.

Wes,

The only problem with that is NEC2 doesn't like stepped diameter
elements (wires) and will not model properly.

BTW: Antenna Model (a MININEC program) will handle that okay.

Danny,
K6MHE

1225. Re: Modeling hose clamps, element mounts and gamma matches with NEC2?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-23 23:17:45 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DB72E19.281534BA@netscape.net>
Source record: 132664

I did state that I am using NEC Win Plus+ which can apply the Leeson correction algorithm. I'm sureWes was taking this into account.

Scott.

Dan Richardson wrote:

>
>
> The only problem with that is NEC2 doesn't like stepped diameter
> elements (wires) and will not model properly.
>

1226. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 00:08:07 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3db739e9$0$4246$ba620e4c@news.skynet.be>
Source record: 132665

Hi Reg,

| It has nothing to do with any imaginary, confusing, so-called forward and
| reflected power.

What do you mean by imaginary ? Do you mean forward and reflected power have
90° of phase difference, which is not true as they are 180° ?

73 de ON5MJ - Jacques.

1227. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 00:11:55 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ap7dsa$7f2$1@sparta.btinternet.com>
Source record: 132666

You need an antenna tuner to ensure the transmitter is operated with its designed-for load resistance, usually 50 ohms but within the range of 40 to 60 ohms is quite good enough and has little or no effect on tuner efficiency anyway. Conjugal matches have nothing to do with it either.

There's a tendency to severely over-estimate loss which occurs in tuners. The poor beast suffers repeatedly from unjust accusations by old-wives. The only thing they have inside to get warm is a few turns of very thick copper wire.

The following table estimates L-match tuner efficiency and overall radiating efficiency of the ubiquitous G5RV versus frequency band. Coil Q is pessimistically estimated at Q = 220. Antenna height = 33 feet.

Frequency	Tuner Effncy %	Overall Effncy %
1.9	70.1	1.4
3.8	98.7	70.7
7.1	98.7	71.4
10.1	97.7	42.8
14.2	99.9	87.7
21.2	98.8	66.7
25.0	99.9	84.6
28.0	98.0	29.0
30.0	97.3	34.7
50.0	98.6	52.9

With a 100-watt transmitter the tuner will run cold except on 160 meters.

T-match tuners always have marginally higher loss for the same impedance transformation ratio.

RF power measurements are notoriously inaccurate. Better estimates of tuner losses are obtained by running the rig at full power for a few minutes, switching off, and placing the palm of your sweaty hand around the tuner coil. If you are unable to hold it there then there's something very seriously wrong.

High RF power efficiencies are invariably most accurately estimated by calculation. Particularly when a small difference between two very high power levels is involved. If you are not vary careful a tuner GAIN can be obtained. Neither can you blow up the PA !

The above data, and much more, obtained in less than a minute using program DIPOLE3, downloadable in a few seconds from the website below.

==========

Regards from Reg G4FGQ
Free Radio Design Software
Go to http://www.g4fgq.com
==========

1228. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 00:23:10 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3db73d76$0$4280$ba620e4c@news.skynet.be>
Source record: 132667

Thank you Roy,

| The field under the radials is the sum of the fields caused by the
| currents in the vertical and all the radials. Directly under the center,
| the fields from the radials cancel, and there is no field from the
| vertical, so the total field there is (theoretically) zero. Away from
| the center, the magnitude of the field depends on where you are.

So between 2 radials (but under the radials or at their level), there is a field ... producing a current somewhere. Where is it passing through ? And what is the resistance of the path ? Is it a bit like the so called ground loss ?

73 de Jacques - ON5MJ

1229. Re: Modeling hose clamps, element mounts and gamma matches with NEC2?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 00:38:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ureg7iredauc0c@corp.supernews.com>
Source record: 132668

Dan Richardson wrote:
>
> The only problem with that is NEC2 doesn't like stepped diameter
> elements (wires) and will not model properly.
>
> BTW: Antenna Model (a MININEC program) will handle that okay.

Some NEC-2 based programs, like EZNEC, also handle stepped diameter elements for common Yagis. They use a technique described by Dave Leeson in _Physical Design of Yagi Antennas_ to substitute an equivalent constant diameter element for each tapered one. The substitution works very well, and actual pattern measurements of beams analyzed with EZNEC have corresponded very closely to predictions. You can, if you wish, manually apply Leeson's method to your model before running it on NEC-2, but it can be tedious. Programs like EZNEC do it automatically. But if you run a tapered Yagi on NEC-2 without the correction, you're just about sure to get a very wrong answer for the front/back ratio.

MININEC has its problems with Yagis, too. It produces an error when modeling Yagis with a relatively large number of elements, such as used for VHF or UHF beams. (The error probably exists with shorter beams but is too small to cause a problem.) The effect is that the pattern is about correct, but at an offset frequency. Quite a bit of effort by a number of people went into tracking this down, but to my knowledge no one found the cause. The original authors of MININEC also couldn't find the cause of this problem. I believe Brian Beezley, K6STI, claimed to have corrected it in his MININEC-based programs, but don't know of any objective evaluation of the correction's effectiveness, and he kept all details proprietary. I don't know whether the Antenna Model folks have found a way around it or not.

Roy Lewallen, W7EL

1230. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 00:45:02 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uregkb82abl6f3@corp.supernews.com>
Source record: 132569

"Conjugal: Of or relating to the married state or to married persons and
their relations."

So it's really the old wives that are responsible for the conjugal
match. Now I get it!

Roy Lewallen, W7EL

Reg Edwards wrote:
. . . Conjugal matches have nothing to do with it either.
>
> There's a tendency to severely over-estimate loss which occurs in tuners.
> The poor beast suffers repeatedly from unjust accusations by old-wives. . .

1231. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 00:49:04 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ap7g1vlhk1@knossos.btinternet.com>
Source record: 132570

"CAM" wrote
> Reg Edwards wrote:
> > But in connection with the purpose of tuners at the output of
transmitters,
> > to mention reflections, imaginary reflected power, conjugate matches,
even
> > imaginary SWR, is no more than a confusing and entirely unnecessary
> > complication.
>
> Reg, there exists a laboratory signal generator equipped with a circulator
> which drives a dummy load. All the reflected power incident upon the
signal
> generator is tapped off from the system and is dissipated in the dummy
load.
> Would you be willing to grab a 100w resistor dissipating 100w of reflected
> power and tell us that the blisters you get on your hand are imaginary?
:-)
> --
> cheers, CAM

==========

Cecil, Congratulations ! You've just added another item to the long list of
things which have nothing to do with the function of HF tuners. ;o)

Yours, Reg, G4FGQ

1232. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 00:49:05 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ap7g20lhk2@knossos.btinternet.com>
Source record: 132571

"ON5MJ" wrote -
> Hi Reg,
>
> | It has nothing to do with any imaginary, confusing, so-called forward
and
> | reflected power.
>
> What do you mean by imaginary ? Do you mean forward and reflected power
have
> 90° of phase difference, which is not true as they are 180° ?
>
> 73 de ON5MJ - Jacques.

==========

```
Dear Jacues, Sqrt(-1) has nothing to do with the function of HF tuners.
Just add it to list of irrelevancies. Al must be becoming even more confused
than ever. ;o)
---
Reg, G4FGQ
```

1233. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 00:52:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ureh1tjf1ebcec@corp.supernews.com>
Source record: 132572

There was a long thread about this topic not long ago -- you should be
able to find it with a Google search. It prompted me to post several
tutorials on transmission line waves, including quite a bit about
forward and reverse power. I'm sorry I haven't prettied it up yet, but
you can get the postings in their original text format at
ftp://eznec.com/pub/Food for Thought/.

Roy Lewallen, W7EL

ON5MJ wrote:
> Hi Reg,
>
> | It has nothing to do with any imaginary, confusing, so-called forward and
> | reflected power.
>
> What do you mean by imaginary ? Do you mean forward and reflected power have
> 90ï¿½ of phase difference, which is not true as they are 180ï¿½ ?
>
> 73 de ON5MJ - Jacques.
>
>
>

1234. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 01:19:03 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <bUHt9.20488$Mb3.785422@bgtnsc04-news.ops.worldnet.att.net>
Source record: 132573

"Fractenna" <fractenna@aol.com> wrote in message
news:20021023072954.20940.00003452@mb-mn.aol.com...
> >
> Steve,
>
> The days of inspired empiricism are over for this field, and we all need
to
> accept that the 'black art' has--not will--succumbed to something at least
more
> inductive, if not deductive.

That's an interesting comment. To a great extent I disagree. I am aware of some very interesting empirical work currently underway in several areas. Additionally, I still think there's a certain art to the antenna design process in many instances.

>At the very least, this is a design GUIDE if not a
> design DETERMINER.
>
> If you can arrive at an 'optimized' design by a slap of solder here, a
curve of
> wire there.. then the laws of physics can be invoked to replicate or
exceed
> through simulation.
>

Recognize that the laws of physics also place boundaries on the design problem that limit genetic optimization in the exact same way that they limit the intuitive design process. Many intuitive antenna designs reach a point where they approach these limits. Genetic optimization may be of little value in these instances. Being able to simulate or genetically optimize does not, in and of itself, guarantee that a more optimal solution is obtainable.

Simulation packages and genetic algorithms/optimizers are tools. The effectiveness of a simulation package and a genetic algorithm as a design tool are many times only as good as the design experience of the programmer or the person using them. The genetic algorithm still needs to be set up with some pre-defined starting point, boundaries, and methodologies that dictate how the evolutionary process occurs. The design intuition of the programmer is an important part of this process. It is my opinion that a person with no antenna design experience and no experience with the simulation routine used by the algorithm would not put a very effective antenna design genetic optimizer together.

> The issue of whether your care PERSONALLY has nothing to do with the
> requirements of SCIENCE.
>
> I am a scientist, and I expect you to honor the fact that a colleague's
time is
> valuable, rather than implying:, 'oh, yeh, I don't know,well... try this
and go
> away'.
>

I'm not sure what you're implying here. Why would you ask me to engage in a debate and then complain that your time is too valuable to participate? You challenged me to a public debate many months ago and almost begged me to participate as "you needed closure". I finally accepted and offered a simple challenge as a focal point for the discussion. You indicated that you wanted an FOM to work with. I provided the FOM quite awhile ago. Now you seem to be delaying the process asking me if I want to change the FOM. I don't. Provide an optimized design whenever you can. If you don't have the time for this, we can end it right now.

Steve VE9SRB

1235. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 01:36:34 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ap7ir1$9n8$1@venus.btinternet.com>
Source record: 132574

"Roy Lewallen" wrote -
> "Conjugal: Of or relating to the married state or to married persons and
> their relations."
>
> So it's really the old wives that are responsible for the conjugal
> match. Now I get it!
>
> Roy Lewallen, W7EL
>
> Reg Edwards wrote:
> . . . Conjugal matches have nothing to do with it either.
> >
> > There's a tendency to severely over-estimate loss which occurs in
tuners.
> > The poor beast suffers repeatedly from unjust accusations by old-wives.
. .

==========

And congratulations to you too Roy on being the first to uncover the hidden
connection !

You see there's method in my mad educational exploits.

Reg, G4FGQ

1236. Re: Noise Level

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 02:11:30 UTC
From: Paul N3EOP <n3eop@arrl.or.callsign.net>
Message-ID: <Xns92B0C33AACF15n3eophotmailcom@64.164.98.6>
Source record: 132575

Bill Ogden <ogden@us.ibm.com> wrote:

> Also, I *hate* installing PL259 connectors --- I just am
> not very good at getting a nice, even connection to the braid.

Then do what I do... install "N" connectors that are clamp mounted. (Or BNCs on 8X.) At the antenna end, install an appropriate adapter, and weather seal the 259 portion. Connect/disconnect the N connection, and don't bother weather sealing it; N connections are already weatherproof.

Yes, it adds a few bucks to the total cost, but compared to the cost of replacing the coax because water gets in it, the added cost is negligible.

1237. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 02:24:57 UTC
From: Paul N3EOP <n3eop@arrl.or.callsign.net>
Message-ID: <Xns92B0C58215C0Dn3eophotmailcom@64.164.98.6>
Source record: 132576

"Tarmo Tammaru" <t-tammaru@home.com> wrote:

> I have measured the output power of my IC756 with and without the
> antenna tuner. When feeding a Hygain TH3MK4 the power out without the
> tuner is about 100W. With the tuner it is about 90W.

If you're using an external wattmeter, the reading with the internal tuner engaged (90W) is probably incorrect. This is because the wattmeter is accurate only at its design impedence (50 ohms), and with the tuner in line, the impedence on the feedline can be anything.

I had an old TS-440/AT that would show 130W on an external meter on 10 meters when feeding an unmodified CB antenna. (The internal meter showed 100W.)

1238. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 02:33:53 UTC
From: Larry Makoski <Makos327@worldnet.att.net>
Message-ID: <l_lt9.20618$Mb3.793084@bgtnsc04-news.ops.worldnet.att.net>
Source record: 132577

I have a Butternut HF9V and am very happy with it. My QTH is in Central New Jersey and I worked 9K2GS, Abdullah in Kuwait City last Friday night. Not only did I break the pile-up; but Abdullah stayed around to chat for a few moments. He asked me what I was running; and I told him 100 watts from an Icom IC-751A to the Butternut. He seemed to be amazed! He said my signal was really loud and outstanding. Never heard THAT from a DX station before! This made me happy, to say the least.

I used to have a GAP Challenger at my old QTH before I got married and moved to the present QTH. I was never quite liked it. The results weren't much better than the G5RV I was running; and that GAP was quite whippy in stormy weather. There were a few times in windy weather that I held my breath as I thought it was going to self-destruct. Amazingly, the Butternut is not like that at all! Maybe it's the different QTH; or maybe it's the way it's made ... I don't know. But I do know that since I've put the Butternut up, it has worked great and I haven't gotten any gray hairs worrying that it was going to collapse on a day when we get high wind warnings.

73 de W2LJ
<Pappy@USA.net> wrote in message news:3DB42BA7.F17BC414@USA.net...
> I am going to purchase a new vertical HF antenna, my problem is which
> one:
>
> MFJ-1798 or GAP Titan DX
>
> Has any one here had any experience with either of these antennas?
>
> Or, what vertical have you had a pleasant or unpleasant experience with.
>
> I chose these two from a host of others brands and models.
>
> Your assistance would be appreciated.
>
> 73's
>

1239. Re: Anybody here use the Force 12 Sigma V? Opinions?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 02:34:59 UTC
From: Paul N3EOP <n3eop@arrl.or.callsign.net>
Message-ID: <Xns92B0C73607823n3eophotmailcom@64.164.98.6>
Source record: 132578

oktx wrote:

> What has been your experience with these?

I've had one for a couple of months. By far the best antenna I've had to date that will fit in my severely limited space.

> Is this a good choice for a newby's first antenna?

I would say so. You'd have to work at it to screw up when putting it together. You may have to tweak the tuning on 20m, as nearby metal will detune the antenna. (Word of advice... put the cover back over the coils when checking the SWR, as it does affect tuning.)

> How is the performance compared to similar products?

Excellent. Since it's a vertical dipole, you don't have to futz with ground radials.

> Where do you have it mounted? On the ground sitting in a bucket like
> they suggest? On a pole? On the roof? On a pole by the fence?

Mine is in a bucket of concrete sitting on the flat roof. Force 12 recommends ground mounting; if I could do that, I would, slipping it into a piece of pipe driven into the ground.

> Has anyone mounted one horizontal? If so how did you do it?

I haven't, though I've read about such installations on the net.

> Any and all comments are appreciated.

I love mine, and will probably continue to use it even after I move, and am able to put up a beam. Given its ease of disassembly and small size when disassembled, it'll probably travel with me.

1240. New program OSCTRACK.exe

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 02:46:02 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ap7mta$g3o$1@sparta.btinternet.com>
Source record: 132579

NOW AVAILABLE ** New Program "OSCTRACK.exe"

Tracking of RF signal and local oscillator tuned circuits in superhet radio receivers.

The program calculates all L and C component values and then checks tracking error as the two-(or more)-gang tuning capacitor is varied from the keyboard from one end of the band to the other. Covers all signal frequencies from VLF to UHF for any Intermediate Frequency (IF).

Ideal for receiver home-brewers.

Download in a few seconds from website below and run immediately.

========================
Regards from Reg G4FGQ
Free Radio Design Software
Go to http://www.g4fgq.com
========================

1241. Re: Wellbrook : what a service !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 02:58:34 UTC
From: Jim <jbollit@ix.netcom.com>
Message-ID: <ap7nkhggu1@slb2.atl.mindspring.net>
Source record: 132580

I second this.

Andy is very customer conscious. I have called him numerous times to talk about his products (especially the K9AY) and he is always ready to spend time with you to sort out any issue.

I highly recommend his products and company.

Jim
R8B
K9AY (Wellbrook)
Quantum Phaser
San Diego, CA.

Thierry <lombryt@hotmail.com> wrote in message news:db35a0c.0210211742.35640912@posting.google.com...
> Hi,
>
> Go for some publicity...
>
> SNIP

1242. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 03:27:15 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB76893.2A1636D9@ieee.org>
Source record: 132581

Reg Edwards wrote:
> Cecil, Congratulations ! You've just added another item to the long list of
> things which have nothing to do with the function of HF tuners. ;o)

So what is the reflection coefficient of a tuner?
Are virtual impedances also imaginary? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1243. Re: Modeling hose clamps, element mounts and gamma matches with NEC2?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 03:45:27 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DB76CD7.7C49F844@netscape.net>
Source record: 132582

Wes - I calculated right about 2" (my plate thickness = 1/8"). I find it strange the formula doesn't take the length of the plate into account? Does it assume the plate is 3.5" X 3.5"? Time to drop this into my picture perfect model and see the damage!

Scott.

>
>
> Let W = width of the mounting plate (3.5" in your case)
>
> Let T = thickness of the mounting plate (?)
>
> Let D = diameter of the element. (3/4")
>
> Then:
>
> A = (pi*D^2)/4 + T*W
>
> P = pi*D + 2*(W + T)
>
> the equivalent diameter of this is then:
>
> D_equiv = ((A/pi)^.5 + P /(2*pi))
>
> So you plop this into your model as the diameter of the element with
> the length equal to the length of the PLATE.

1244. Re: Modeling hose clamps, element mounts and gamma matches with NEC2?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 04:01:54 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DB770B2.95CA7C08@netscape.net>
Source record: 132583

I changed the center section from 3.5" X 3/4" to 3.5" X 2". It shifted the design up about 100Khz. I can tweak it back down, but I hope this holds when its on the roof!

Scott.

Scott wrote:

> Wes - I calculated right about 2" (my plate thickness = 1/8"). I find it
> strange the formula doesn't take the length of the plate into account? Does
> it assume the plate is 3.5" X 3.5"? Time to drop this into my picture perfect
> model and see the damage!
>
> Scott.
>
> >
> >
> > Let W = width of the mounting plate (3.5" in your case)
> >
> > Let T = thickness of the mounting plate (?)
> >
> > Let D = diameter of the element. (3/4")
> >
> > Then:
> >
> > A = (pi*D^2)/4 + T*W
> >
> > P = pi*D + 2*(W + T)
> >
> > the equivalent diameter of this is then:
> >
> > D_equiv = ((A/pi)^.5 + P /(2*pi))
> >
> > So you plop this into your model as the diameter of the element with
> > the length equal to the length of the PLATE.

1245. Re: removing busted bolts from bottom of tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 05:10:00 UTC
From: Lowell Voelker <lvoelker@ispwest.com>
Message-ID: <3DB780A8.1030000@ispwest.com>
Source record: 132584

Dave,

Get some penitrating oil and sok the bolt and nut in it. If you have to
use a rag or old paint brush to apply it for two-five day if needed.
I used to sok nuts and bolts in a can of penitrating oil for a week,
only because I was getting back to the barn the next week.

LPS Product makes a 12oz spray can. I know DoALL Industrial Supply,
Granger, and other places sell it.

Dave Benham wrote:
> I picked up an old tower that was probably originally designed for TV, CB or
> very light ham use. It's aluminum and all the cross braces are put together
> with bolts and nuts, not welded. At the bottom of the lower section there
> are two holes in each leg. Two legs have these holes lined up on the same
> axis, so those legs can be bolted to the base and the tower walked up and
> the final leg bolted in. All I wanted it for was as a way to raise an R7 up
> higher.
>
> My problem is that two of these total of six holes have broken off bolts
> inside them. The bolts are broken flush with the tower leg so there's
> nothing to grab onto. The bolts are steel and they pass through some sort
> of reinforcement metal inside the tube of the leg -- I'm not sure what this
> material is. I've drilled holes in them and tried an easy-out -- no luck
> whatsoever. They don't budge. From the appearance of the other clear
> holes, I don't believe these broken bolts are threaded through the holes --
> there may be threads on the bolts, but not in the female portion it passes
> through. I've applied heat with a fine tipped OA torch with no luck --
> that's tricky because of the nearby aluminum -- too much heat and there goes
> the tower leg, so I may not have applied enough heat. I also tried Liquid
> Wrench -- no luck.
>
> My holes in these bolts are not perfectly on center, so it would be almost
> impossible for me to drill out the bolts without enlarging and elongating
> the hole itself. In fact, one of the bolts is so hard that I can't get a
> drill to pass through it. The bit just spins. I resharpened the bit, and
> still no luck. I got a good way in from both sides of this bolt, but there
> is some sort of hard spot in the center that I can't get through.
>
> I am about to cut off the bottom 4" of each leg and start over, but then I'd
> be faced with drilling the holes on the 2 legs perfectly in line which would
> be very difficult "in the field" (the tower won't fit in my basement where
> the drill press is!).
>
> Any ideas?

>
> Thanks.
>
> Dave K8TRF
>
>

1246. Re: New General looking for antenna ideas for apartment

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 05:42:33 UTC
From: Lowell Voelker <lvoelker@ispwest.com>
Message-ID: <3DB78849.2080409@ispwest.com>
Source record: 132587

Scott,

40Mtr during the day and 75Mtr at night. ARES and RACES Nets.

40Mtr is not great after 1pm for me in Central Calif or Nevada. AM is
best and quieter. Look out for the Broad Cast Stations at night and
Early AM. Now that I have my Extra I can get away from them.

10Mtrs in the summer is good at 5pm Pacific Daylight Savings Time.
20 might be better for you with the space problems you my find you have
to get somthing on 75Mtr

Enjoy. I am in the works of a Horizontal Loop on the roof or in the atic.

Scott Keller wrote:
> I just passed my General exam (woo hoo!), and my TS-430 is coming
> tomorrow or Thursday. I live in an apartment, and I have balcony
> access. I was a Tech Plus, so I have been running a 10 meter vertical
> out there without any problems. Any ideas on which bands I should try
> to use? I mostly will operate after 5:00 PT, and I am in Washington.
> What bands would be open after 5:00? Will 20 still be open? I really
> don't know, beause I don't have a good radio to monitor the bands yet.
>
> Also, anyone have some great limited-space antenna ideas for me? I
> have a balcony (with wooden railings) to work with.
>
> Also, what are some of the favorite HF bands that people use in this
> newsgroup, and why?
>
> Thanks,
>
> Scott Keller
> N9WDH / AG

1247. Re: Modeling hose clamps, element mounts and gamma matches with NEC2?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 05:43:12 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <ie0fruslmdk793k3jo9uoqo5nqdhjlsn2d@4ax.com>
Source record: 132585

On Wed, 23 Oct 2002 23:45:27 -0400, Scott <scott2rp789@netscape.net>
wrote:

|Wes - I calculated right about 2" (my plate thickness = 1/8"). I find it
|strange the formula doesn't take the length of the plate into account? Does
|it assume the plate is 3.5" X 3.5"? Time to drop this into my picture perfect
|model and see the damage!

No. It's calculating an equivalent diameter for that length of
element, whatever the length of it.

If your plate is 3.5" in length then you model that portion of the
element as 3.5" long, 2" in 'diameter'.

Wes

1248. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 05:53:14 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <pa2frukrva45m70a7ajsgsoq09slh2jper@4ax.com>
Source record: 132586

On Thu, 24 Oct 2002 02:24:57 GMT, Paul N3EOP
<n3eop@arrl.or.callsign.net> wrote:

|"Tarmo Tammaru" <t-tammaru@home.com> wrote:
|
|> I have measured the output power of my IC756 with and without the
|> antenna tuner. When feeding a Hygain TH3MK4 the power out without the
|> tuner is about 100W. With the tuner it is about 90W.

I see similar results with my TS-870 (into a reasonably matched load).

|
|If you're using an external wattmeter, the reading with the internal
|tuner engaged (90W) is probably incorrect. This is because the
|wattmeter is accurate only at its design impedence (50 ohms), and with
|the tuner in line, the impedence on the feedline can be anything.

But the wattmeter is just as (in)accurate in either case since nothing
has changed on the load side.

Are you suggesting that if the drive level was decreased and the power
output dropped the wattmeter is less accurate?

1249. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 09:37:18 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <ap8f8v$tk8$1@slb5.atl.mindspring.net>
Source record: 132588

Dr. Cohen:

[snip]
> I'm not sure what you're implying here. Why would you ask me to engage in
a
> debate and then complain that your time is too valuable to participate?
You
> challenged me to a public debate many months ago and almost begged me to
> participate as "you needed closure". I finally accepted and offered a
> simple challenge as a focal point for the discussion. You indicated that
> you wanted an FOM to work with. I provided the FOM quite awhile ago. Now
> you seem to be delaying the process asking me if I want to change the FOM.
> I don't. Provide an optimized design whenever you can. If you don't have
> the time for this, we can end it right now.
>
> Steve VE9SRB
[snip]

You stated that you would do it. I believe you stated it would be done by
mid-October 2002, well now it's almost November.

Dr. Best has expeditiously supplied you with a very explicit FOM.

Now... just cut all the USENET posting bull, simply fire up that GA
optimizer of yours and get going on antenna design.

You claim to be a "scientist", but now [IMHO] it seems that you just post on
USENET, rather than do actual quantative design.

"Just do it!"

--Peter K1PO
Indialantic By-the-Sea, FL.

1250. Re: G5RV, single or double length ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 11:51:46 UTC
From: David Walker <vk2icq@hotmail.com>
Message-ID: <3db7decd@news.comindico.com.au>
Source record: 132589

That's right... with a balanced feedline SWR doesn't seem to make much
difference to actual radiated field strenth.

I use a 80m loop with a tuner with open wire feeder and do extremely
well.....

"Dick Carroll" <dixie@townsqr.com> wrote in message
news:aonn3k$nn0$0@208.207.71.166...
>
>
> CAM wrote:
> >
> > Andy Cowley wrote:
> > >
> > > CAM wrote:
> > > > As I suspected, the
> > > > antenna does a good job on 160m, 80m, & 40m. The SWR's on the 50
> > > > ohm coax are 4:1 on 1.95 MHz, 4:1 on 4.0 MHz, and 2.4:1 on 7.19 MHz.
> > >
> > > A 4:1 SWR on coax is good? Must be some new kind of good you're
talking
> > > about there. 1.4:1 is O.K. but 4:1 is no way 'good'.
> >
> > Well, would you believe "not bad"? :-) The loss in 100 ft. of RG213 with
> > an SWR of 4:1 would be about 0.01 dB higher than the matched line loss
> > according to the chart in _The_ARRL_Handbook_. On 160m, the loss
increases
> > from about 0.22 dB to about 0.23 dB and on 75m, the loss increases from
about
> > 0.32 dB to about 0.33 dB. Exactly how does one measure that extra 0.01
dB of
> > loss caused by an SWR of 4:1?
> >
>
>
> This is why I say that hams all too often fixate on keeping the SWR 1:1
> at the expense of all else without understanding what effect it actually
> has on THEIR station.
> I catch a lot of flak for that but it remains true.
>
> Dick

1251. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 12:47:31 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3db7eca9$0$6012$ba620e4c@news.skynet.be>
Source record: 132590

Hi Roy,

I have tried to reach your FTP page but it can't open, maybe I don't have the right permission to do it. I always appreciate any comment coming from your side even if I have a licence for 36 years and even an engineering degree. Learning everyday from anyone is always interesting.

Jacques.

1252. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 12:51:48 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <z1St9.7521$m4.918661@newsfeed.slurp.net>
Source record: 132591

Two somewhat picky comments to a previous post...

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:urduua2ha00h4b@corp.supernews.com...

> The antenna radiates all the power that gets to it (less any lost in the
> resistance of the antenna itself and ground system) regardless of the
> SWR on the line.

Considering a transmit antenna system, if the Z of the transmission line is not matched to the input Z of the antenna it is connected to, the antenna will reflect some of the power in the line back to the transmitter (tx). What happens then depends on the Z match of the line to the tx. If Zs are matched there, the reflection is absorbed by the tx and dissipated as heat. If is not well matched, some is reflected back up the line, and some is absorbed by the tx. Of the part that may be reflected back to the antenna, some will be radiated and some will be reflected, just as in the first case. This dual process continues until the power generated by the tx is dissipated by some combination of radiation and absorption.

The best place to install an impedance matching transformer (tuner) is physically as close as possible to the impedance mismatch it is intended to correct. A tuner to match an antenna that is installed at the antenna input will effectively remove the standing waves on the transmission line, because then all the incident power will be radiated, and there will be nothing left to reflect back down the line.

> And by the way, if you lose 25 of your 100 watts somewhere in the
> process, don't lose too much sleep -- that's only 1 dB.

dB = 10*log(25/100) = -6.02dB

Richard Fry, CPBE

1253. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 12:57:49 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <d7St9.7531$m4.919823@newsfeed.slurp.net>
Source record: 132592

Oops, too fast there. Losing 25 watts leaves 75, and 10*log(75/100) =
~1.25dB.

"Richard Fry" <rfry@adams.net> wrote in message
news:z1St9.7521$m4.918661@newsfeed.slurp.net...
> Two somewhat picky comments to a previous post...
> > > And by the way, if you lose 25 of your 100 watts somewhere in the
> > process, don't lose too much sleep -- that's only 1 dB.
>
> dB = 10*log(25/100) = -6.02dB
>
>
> Richard Fry, CPBE
>
>

1254. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 13:51:07 UTC
From: Ken N4VSD <REMOVECAPSn4vsd@yahoo.com>
Message-ID: <fVSt9.68370$VQ2.16009953@twister.midsouth.rr.com>
Source record: 132593

ftp://eznec.com/pub/Food%20for%20Thought/ works

"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message
news:3db7eca9$0$6012$ba620e4c@news.skynet.be...
> Hi Roy,
>
> I have tried to reach your FTP page but it can't open, maybe I don't have
> the right permission to do it. I always appreciate any comment coming from
> your side even if I have a licence for 36 years and even an engineering
> degree. Learning everyday from anyone is always interesting.
>
> Jacques.
>
>

1255. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 14:20:37 UTC
From: Pappy@USA.net
Message-ID: <3DB801B5.51616400@USA.net>
Source record: 132594

Thank you Evan. I ordered the GAP titan DX two days ago.

Sorry about the email, I like to use an anonymous moniker to eliminate spam.

K9SQG wrote:

> Guess my email didn't get through. I prefer the GAP Challenger and I've owned
> Hustler, Cushcraft, Hy-Gain, not to mention homebrewing.
>
> 73s,
>
> Evan

1256. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 14:45:45 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB80799.219A8333@ieee.org>
Source record: 132595

Richard Fry wrote:
> Considering a transmit antenna system, if the Z of the transmission line is
> not matched to the input Z of the antenna it is connected to, the antenna
> will reflect some of the power in the line back to the transmitter (tx).
> What happens then depends on the Z match of the line to the tx. If Zs are
> matched there, the reflection is absorbed by the tx and dissipated as heat.
> If is not well matched, some is reflected back up the line, and some is
> absorbed by the tx.

Here's a recent example:

100w XMTR----50 ohm feedline---x---1/2WL 150 ohm feedline---50 ohm load

There is a 4:1 SWR and 33.33w of reflected power on the 150 ohm feedline.
Where is the reflected power that is "absorbed by the tx"?

A tuner prevents reflected power from reaching the transmitter. If no
reflected power reaches the transmitter, then no reflected power can
possibly be "absorbed by the tx".
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1257. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 15:05:50 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3db80c53$0$4261$ba620e4c@news.skynet.be>
Source record: 132596

Thank you Ken,

Indeed it works.

Jacques.

1258. Re: Modeling hose clamps, element mounts and gamma matches with NEC2?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 15:09:19 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DB80D1F.419A0261@netscape.net>
Source record: 132597

I understand what you meant and that is how I did it, but I am saying the length (the length of the plate in the boom's axis) of the mount plate is ignored in calculating the diameter.

Scott.

Wes Stewart wrote:

> If your plate is 3.5" in length then you model that portion of the
> element as 3.5" long, 2" in 'diameter'.
>
> Wes

1259. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 15:21:50 UTC
From: David <Dave@lawlink.com>
Message-ID: <ieUt9.88271$%d2.32931@sccrnsc01>
Source record: 132598

Nothing better than the Butternut HV9.

<Pappy@USA.net> wrote in message news:3DB801B5.51616400@USA.net...
> Thank you Evan. I ordered the GAP titan DX two days ago.
>
> Sorry about the email, I like to use an anonymous moniker to eliminate
spam.
>
>
> K9SQG wrote:
>
> > Guess my email didn't get through. I prefer the GAP Challenger and I've
owned
> > Hustler, Cushcraft, Hy-Gain, not to mention homebrewing.
> >
> > 73s,
> >
> > Evan
>

1260. Re: Modeling hose clamps, element mounts and gamma matches with NEC2?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 15:56:55 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <4t5grukv93o56c1k5d98d3lvpls0pre6n2@4ax.com>
Source record: 132599

On Thu, 24 Oct 2002 11:09:19 -0400, Scott <scott2rp789@netscape.net>
wrote:

|I understand what you meant and that is how I did it, but I am saying the length
|(the length of the plate in the boom's axis) of the mount plate is ignored in
|calculating the diameter.
|
|Scott.

What we have here is a failure to communicate.

The "width" is the dimension along the axis of the boom. The "length"
is the dimension along the axis of the element.

|
|Wes Stewart wrote:
|
|> If your plate is 3.5" in length then you model that portion of the
|> element as 3.5" long, 2" in 'diameter'.
|>
|> Wes

1261. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 16:00:20 UTC
From: fractenna@aol.com
Message-ID: <20021024120020.28207.00000007@mb-fp.aol.com>
Source record: 132600

>You indicated that
>you wanted an FOM to work with. I provided the FOM quite awhile ago. Now
>you seem to be delaying the process asking me if I want to change the FOM.
>I don't. Provide an optimized design whenever you can. If you don't have
>the time for this, we can end it right now.
>
>Steve VE9SRB
>

Answer the question as posed: is this the FINAL form of the FOM which, to the best of your ability, is not an ill-posed formulation, but one designed to --distinguish-- physically meaningful candidates in an optimization scheme? Are you convinced that it has no pathological behavior? Are you convinced of its validity?

I will not discuss it any further. What I expect from a scientist is: 'here is the best formulation I wish to proffer upon an objective and thoughtful review and conference with colleagues.'

Are you saying this?

Cordially,

NC

1262. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 17:07:27 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <urga6m2levd8d5@corp.supernews.com>
Source record: 132601

Translation:

My whole (patent pending) super duper computer sytem can't seem to come up
with anything worth a crap that can get around your FOM.

"Fractenna" <fractenna@aol.com> wrote in message
news:20021024120020.28207.00000007@mb-fp.aol.com...
> >You indicated that
> >you wanted an FOM to work with. I provided the FOM quite awhile ago.
Now
> >you seem to be delaying the process asking me if I want to change the
FOM.
> >I don't. Provide an optimized design whenever you can. If you don't
have
> >the time for this, we can end it right now.
> >
> >Steve VE9SRB
> >
>
> Answer the question as posed: is this the FINAL form of the FOM which, to
the
> best of your ability, is not an ill-posed formulation, but one designed to
> --distinguish-- physically meaningful candidates in an optimization
scheme?
> Are you convinced that it has no pathological behavior? Are you convinced
of
> its validity?
>
> I will not discuss it any further. What I expect from a scientist is:
'here is
> the best formulation I wish to proffer upon an objective and thoughtful
review
> and conference with colleagues.'
>
> Are you saying this?
>
> Cordially,
>
> NC
>
>

1263. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 17:21:44 UTC
From: Ed Senior <eseniors@earthlink.net>
Message-ID: <I_Vt9.2418$6F4.191203@newsread2.prod.itd.earthlink.net>
Source record: 132602

Hi Al -

Let's assume that you are talking about an add-on antenna tuner applied at the sending end of your transmission line. Then the short answer is:

If your rig can accommodate the impedance seen at the sending end of your transmission line, then NO, you DON'T need an (external) tuner. Your rig should tell you if you need one. But do "ask the question" at the lowest practical power level, so as to avoid damage.

Given that, a couple of other points (in no particular order):

1. One post refers to rigs starting "high" SWR power-limiting at SWRs above 2.0:1. Perhaps some rigs work that way. But my rice-burner starts limiting at 1.5:1, which I think is fairly typical. (However, it does have a built-in auto tuner, which will work up to 3:1 or so.)

2. Some posts suggest that a tuner dissipates no power, or completely negligible power. How about a little rocket science on this one: If tuners are lossless, why do the ones rated for high power need to be bigger, with lower-loss/higher-dissipation components? Duh! (Please forgive if I sound a little waspish on this.)

The March 1997 QST compared four high-power tuners of the time. When working into SWRs below 4:1 or so, and when in the more favorable frequency bands, these tuners tended to have negligible loss. (There was one exception, a tuner that never seemed to get under 10% loss.) In the less favorable bands, most of the tuners had losses between 10% and 25%.

I agree that a 10% to 25% tuner loss is not going to make much difference at the receive end. The main concern would be that the tuner not get too hot, and become damaged. Note also that if your tuner has these losses trying the buck a high SWR, there are probably additional losses in the transmission line itself, because of the high SWR--at least with coax. So it's a really nice thing when the antenna and feed line are well matched at the antenna.

It is also my belief that SOME of the folks who give tuners a free pass for 25% loss would be absolutely apoplectic if a similar loss occurred in something they didn't like--e.g., the termination resistor used in some broadband, no-tuner antennas. But that's OT...

"Al" <ABurzynski@nojunk.satx.rr.com> wrote in message news:_pwt9.195977$121.5526195@twister.austin.rr.com...
> Does an antenna tuner improve the signal leaving the antenna or is it

there
> strictly for the transmitter to see 50-ohms? For example, if I do not have
a
> tuner and my transmitter, line, and antenna are all perfect 50-ohm and I
> transmit 100 watts, all of it is radiated by the antenna (not counting
> trivial losses). If I switch to a different band where the antenna is no
> longer the proper impedance, and I transmit with a not-too-high swr, the
> antenna radiates say 75 watts and 25 goes to (I don't know where). If I
now
> add an antenna tuner and transmit the same 100 watts, the antenna radiates
> 75 watts and the tuner consumes 25 watts. I assume therefore that my
signal
> output from the antenna was not improved in any way due to the addition of
> the tuner. Am I correct here or am I missing something?
>
> Is the same thing true for receiving in the situation above? Will I
improve
> the signal at my receiver with an antenna tuner or is the tuner simply
> consuming its share (25 percent in example above) of the signal?
>
> In other words, why (the true reason for) do I need an antenna tuner for
> transmitting or receiving?
>
> I appreciate all comments. Thank you.
>
> Al
> KA5JGV
>
>
>

1264. Re: 5/8 wave formula

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 17:37:02 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210240937.93e322f@posting.google.com>
Source record: 132603

'Doc <w5lz@cwis.net> wrote in message news:<3DB70F70.1B398D7@cwis.net>...
> Alex,
> Try using 620 / f in Mhz. That will get you real close.
> 'Doc

Pretty close. But just a tad bit long. Depends how you want to design it I guess. Some prefer a shorter 5/8 to give a slightly cleaner pattern with a better null overhead. IE: MW broadcasters, etc.. 587/f is pretty close for that. If you wanted to use .64 wave as the length, 599/f is pretty close. For a vertical, I'd probably use the 587/f. For an antenna like an EDZ where it might be preferred to get the most gain available, 599/f might be better. You can use 165/f * 6.25 to get the loading coil value for a non grounded coil. 305/f * 6.25 for a grounded base coil. The results would be in microhenrys. MK

1265. Re: Dear Reg Don't worry about it. Re: CAM???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 17:41:45 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210240941.6b53948f@posting.google.com>
Source record: 132604

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
>
> When there are several conflicting replies to questions (there are arguments
> galore) is it a good idea to take a majority vote?

I think so in many cases.
>
> There's one thing for certain, all that appears on these walls is provided
> with the best of intentions.

There is so much love in this room.... :/

MK

1266. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 18:30:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urgf2fq5i3mj8d@corp.supernews.com>
Source record: 132606

Thanks for the report. The problem might have to do with the name of the subdirectory. It contains spaces, and people might not be aware that names are case sensitive, at least on Unix systems. I've changed the name of the subdirectory to food_for_thought, which might help. Try going to ftp://eznec.com/pub/, then selecting the food_for_thought directory when you get there. You should also be able to get to the ftp pub directory by going to http://eznec.com and clicking the "ftp site" link near the bottom of the page. Please let me know if you still have trouble accessing it, and anyone else having trouble please let me know.

Roy Lewallen, W7EL

ON5MJ wrote:
> Hi Roy,
>
> I have tried to reach your FTP page but it can't open, maybe I don't have
> the right permission to do it. I always appreciate any comment coming from
> your side even if I have a licence for 36 years and even an engineering
> degree. Learning everyday from anyone is always interesting.
>
> Jacques.
>
>

1267. Re: rec.radio.amateur.antenna Standards??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 18:33:47 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <0o9grukjkihk6k8sf85mphdp8e8cs85hte@4ax.com>
Source record: 132605

On Tue, 22 Oct 2002 13:06:56 -0700, "Fred Marshall"
<fmarshall@acm.org> wrote:

>I've been mostly lurking for the last few weeks. My hope was that there'd
>be some really interesting discussion about antennas here. My impression so
>far is disappointing because there is so much flaming / impolite messages,
>off topic stuff etc.
>
>Are there no standards of discourse in rec.radio.amateur.antenna ??
>
>Or, does one simply filter out certain senders? That would be a shame to
>contemplate.
>
>There are certainly examples of newsgroups where folks do stick to the
>purpose and avoid too much flaming. Can that happen here?
>
>Fred AC7VR
>

Hi Fred,

You should, by now, have been able to follow the grist of the
challenge offered, accepted, and avoided by now in the thread Antenna
Optimization. You may also observe the quality of "standards"
employed to NOT do anything as I had observed in that same thread.
However, I do have to admit that my 5:1 ratio was out of whack to the
demonstrated 8:0 response offered:

On 24 Oct 2002 16:00:20 GMT, fractenna@aol.com (Fractenna) wrote:

>>You indicated that
>>you wanted an FOM to work with. I provided the FOM quite awhile ago. Now
>>you seem to be delaying the process asking me if I want to change the FOM.
>>I don't. Provide an optimized design whenever you can. If you don't have
>>the time for this, we can end it right now.
>>
>>Steve VE9SRB
>>
>
>Answer the question as posed: is this the FINAL form of the FOM

1.) reason to not do anything;

> which, to the
>best of your ability, is not an ill-posed formulation

2.) reason to not do anything;

>, but one designed to
>--distinguish-- physically meaningful candidates in an optimization scheme?

3.) reason to not do anything;

>Are you convinced that it has no pathological behavior?

4.) reason to not do anything;

>Are you convinced of
>its validity?

5.) reason to not do anything;

>
>I will not discuss it any further.

6.) reason to not do anything - literally;

>What I expect from a scientist is: 'here is
>the best formulation I wish to proffer upon an objective and thoughtful review
>and conference with colleagues.'

7.) reason to not do anything;

>
>Are you saying this?

8.) reason to not do anything;

>
>Cordially,
>
>NC
>

As pointed out in the past, this charade is for commercial purposes only and any suggestion that this proposed challenge or debate (as it has been charmingly described by the tight lipped, disfunctional party) will go forward to a conclusion is simply more (albeit lame) marketing hyperbole.

The character of the challenge has been met twice with simple responses to be rejected with this flood of bewildered questions of a naif demanding answers. [Our community is not surprised by the jejune attitude of the poster and find the contrast to claims of scientific achievement, publication in vanity rags, a source of endless amusement.] If and when they are answered, we can expect the continued speculations of "scientific" methods only Nostradamus would examine:
9.) Are you sure that blue is not more appropriate than #12 wire?
10.) Can you provide the names of 12 tenured professors of RF that concur with your choice?
11.) Were you standing when you posted your FOM?
12.) Were these same tenured professors standing too?
13.) On which feet?

14.) I expect a responsible scientist to respond immediately with the appropriate response to this request - will you do so?
15.) Too late. Immediately meant between 14 and 15, not after - how irresponsible and inappropriate of you.

So, Fred, can you see the genesis of the flame and how it builds to a conflagration? This low-brow humor injected by fraudtenna in the place of actual results is about the only (and meager at that) content available in that rapidly decaying thread. Such "science" is in desperate need of hamburger helper.

We are often regaled with humorous postings from the nut fringe who want to proclaim their advances in science, but come to us asking for an explanation as to how it works. They then select the correspondent who comes closest to parroting their nonsense and exalt at their being anointed masters of the universe (or of merely a small planet at the edge for the eh community - they are more humble than most).

And, as you may also tell by now, I love these opportunities to add to the festive occasion by holding this open casket ceremony. Do you have any comments to pass on to the other side before we drive the stake in?

73's
Richard Clark, KB7QHC

1268. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 18:34:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urgf9jonjn901@corp.supernews.com>
Source record: 132607

Egad, I'm not going back through this again. If anyone is interested in what I have to say about it (and have said about it), please take a look at the files available at ftp://eznec.com/pub/food_for_thought/. (Note recent change of subdirectory name.)

Roy Lewallen, W7EL

Richard Fry wrote:
> Two somewhat picky comments to a previous post...
> _____________________________
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:urduua2ha00h4b@corp.supernews.com...
>
>
>>The antenna radiates all the power that gets to it (less any lost in the
>>resistance of the antenna itself and ground system) regardless of the
>>SWR on the line.
>
>
> Considering a transmit antenna system, if the Z of the transmission line is
> not matched to the input Z of the antenna it is connected to, the antenna
> will reflect some of the power in the line back to the transmitter (tx).
> What happens then depends on the Z match of the line to the tx. If Zs are
> matched there, the reflection is absorbed by the tx and dissipated as heat.
> If is not well matched, some is reflected back up the line, and some is
> absorbed by the tx. Of the part that may be reflected back to the antenna,
> some will be radiated and some will be reflected, just as in the first case.
> This dual process continues until the power generated by the tx is
> dissipated by some combination of radiation and absorption.
>
> The best place to install an impedance matching transformer (tuner) is
> physically as close as possible to the impedance mismatch it is intended to
> correct. A tuner to match an antenna that is installed at the antenna input
> will effectively remove the standing waves on the transmission line, because
> then all the incident power will be radiated, and there will be nothing left
> to reflect back down the line.
>
>
>>And by the way, if you lose 25 of your 100 watts somewhere in the
>>process, don't lose too much sleep -- that's only 1 dB.
>
>
> dB = 10*log(25/100) = -6.02dB
>

>
> Richard Fry, CPBE
>
>

1269. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 18:35:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urgfbsb6kqi126@corp.supernews.com>
Source record: 132609

Thanks -- but it won't work any longer. I've just changed the name of
the subdirectory to food_for_thought to make it easier.

Roy Lewallen, W7EL

Ken N4VSD wrote:
> ftp://eznec.com/pub/Food%20for%20Thought/ works
>
> "ON5MJ" <on5mjREMOVE@skynet.be> wrote in message
> news:3db7eca9$0$6012$ba620e4c@news.skynet.be...
>
>>Hi Roy,
>>
>>I have tried to reach your FTP page but it can't open, maybe I don't have
>>the right permission to do it. I always appreciate any comment coming from
>>your side even if I have a licence for 36 years and even an engineering
>>degree. Learning everyday from anyone is always interesting.
>>
>>Jacques.
>>
>>
>
>
>

1270. Hamstick's optional (additional) whips

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 18:39:32 UTC
From: Andreas Hofmann <andreash23@hotmail.com>
Message-ID: <3db83e67$1@news.microsoft.com>
Source record: 132608

Hi,

Has anyone use the Extra tapered whips for the hamsticks? I am wondering whether they are supposed to increase radiation efficiency? There seems to be no info available about them. From www.hamstick.com website:

a.. TW-1 Extra 47 inch tapered whips $5.95
a.. TW-2 Extra 59 inch tapered whips $6.95

Any info on experience is appreciated.

Thanks,
Andreas, KU7T

1271. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 18:47:08 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <kvfgrusevcmc245b2imke2s4gf8ast8g52@4ax.com>
Source record: 132610

On Thu, 24 Oct 2002 01:36:34 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>"Roy Lewallen" wrote -
>> "Conjugal: Of or relating to the married state or to married persons and
>> their relations."
>>
>> So it's really the old wives that are responsible for the conjugal
>> match. Now I get it!
>>
>> Roy Lewallen, W7EL
>>
>> Reg Edwards wrote:
>> . . . Conjugal matches have nothing to do with it either.
>> >
>> > There's a tendency to severely over-estimate loss which occurs in
>tuners.
>> > The poor beast suffers repeatedly from unjust accusations by old-wives.
>. .
>
>==========
>
>And congratulations to you too Roy on being the first to uncover the hidden
>connection !
>
>You see there's method in my mad educational exploits.
>---
>Reg, G4FGQ
>

Ah Punchinello!

And undoubtedly the secret of success to keeping your software
unzipped. ;-)

73's
Richard Clark, KB7QHC

1272. Re: Modeling hose clamps, element mounts and gamma matches with NEC2?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 19:16:23 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DB84706.47A2BE93@netscape.net>
Source record: 132611

That is my fault, it makes perfect sense - I just didn't see it.

Wes Stewart wrote:

> On Thu, 24 Oct 2002 11:09:19 -0400, Scott <scott2rp789@netscape.net>
> wrote:
>
> |I understand what you meant and that is how I did it, but I am saying the length
> |(the length of the plate in the boom's axis) of the mount plate is ignored in
> |calculating the diameter.
> |
> |Scott.
>
> What we have here is a failure to communicate.
>
> The "width" is the dimension along the axis of the boom. The "length"
> is the dimension along the axis of the element.
>
> |
> |Wes Stewart wrote:
> |
> |> If your plate is 3.5" in length then you model that portion of the
> |> element as 3.5" long, 2" in 'diameter'.
> |>
> |> Wes

1273. Figures of Meri t(FOM) and Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 19:52:09 UTC
From: Fred Marshall <fmarshall@acm.org>
Message-ID: <ap9j4u$29b2$1@feed.centurytel.net>
Source record: 132612

There have been threads here that discuss figures of merit for antenna design. In some cases the discussion seems to be narrowly focused - as if there were a single FOM that would / could apply in a design process.

Well, sometimes there is a single FOM that would apply to a product or design. For example, there's a well-accepted FOM often used in passive sonar or radar: FOM = SL - NL +DI - DT

where SL is the signal level, NL is the noise level, DI is the directivity index of the array and DT is the detection threshold in the receiver.
And, there are similar ones for active sensors and for radio communications as everyone probably knows.

So far, so good.

I wonder if the term FOM as used above isn't sometimes confused with with what might otherwise be more appropriately called the optimization scheme's "cost function" - the thing that is to be minimized or maximized in a design optimization scheme. (I don't really like the term "cost function" but it's the most common term I believe).

Now, what happens when we are doing an optimization? We can still use simple system figures of merit as above in talking about the design that results from an optimization. However, in doing the optimization we also usually need to introduce the design criteria and contstraints in addition to such a figure of merit. So then we would talk about a cost function that combines system performance with underlying parameters. Generally, this requires that there be a combination of results. The most typical is a simple sum of the results stuck into the optimization such as:

Minimize: 0.4 x array sidelobe level and F/B ratio measures + 0.4 x beam width measure + 0.2 x size of the array

- and you can include whatever you like or are able in the combination expression
- and you can use expressions that aren't simple weighted sums

What's important here is that the 0.4, 0.4 and 0.2 "weights" are usually numbers that have been arrived at arbitrarily - they are subjective.
In the real world, we may even have to tweak them after getting optimization results - as we learn.
My final weights and your final weights may well be different for the same optimization.

Also, multiple designs can have the same FOM as used at the top of this message. Usually optimizations try to arrive at a global optimum - which would be a single result. I say "usually" because some optimization schemes use a blind search that don't guarantee reaching the one and only best result - it depends on where it starts and so forth....

So,
- FOM (as above) isn't unique (although the optimization cost function may be)
- optimization cost functions are often subjective

What's the point? Well, it's not that FOMs aren't useful, because they are. The point is we can get all confused if we mix a system or design FOM with an optimization cost function. They aren't the same thing in general. Here's a simple example where they are almost the same:

FOM definition: SL - NL + DI - DT

Cost function definition:
maximize [SL - NL + DI - DT]=FOM
minimize 5*DI - 10*DT where 5 and 10 have been selected subjectively / are in that sense arbitrary
subject to:
array size less than or equal to 5 feet in its maximum dimension,
DT is not less than +10dB,
SL=120dB and NL=-120dB

So, when we talk about optimization of a mix of antenna characteristics, it means that there will either have to be:
1) Optimize a system FOM all by itself - generally to maximize it. But the one above for a passive receive system is a simple sum so there are any number of individual values that will satisfy it.
2) Optimization of a cost function that's more complex - which means deciding on the weights. This means that it's arbitrary.

Well, I hope this is helpful or at least thought provoking. Comments?

Fred AC7VR

1274. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 20:36:29 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <bRYt9.21$g4.9380@newsfeed.slurp.net>
Source record: 132613

In that case the tuner is matching the net impedance of the line and antenna
to the tx, and power transfer is maximized. Without the tuner, the tx
PA/output network (and line) can dissipate part of the reflected power.

RF

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DB80799.219A8333@ieee.org...
> Richard Fry wrote:
> > Considering a transmit antenna system, if the Z of the transmission line
is
> > not matched to the input Z of the antenna it is connected to, the
antenna
> > will reflect some of the power in the line back to the transmitter (tx).
> > What happens then depends on the Z match of the line to the tx. If Zs
are
> > matched there, the reflection is absorbed by the tx and dissipated as
heat.
> > If is not well matched, some is reflected back up the line, and some is
> > absorbed by the tx.
>
> Here's a recent example:
>
> 100w XMTR----50 ohm feedline---x---1/2WL 150 ohm feedline---50 ohm load
>
> There is a 4:1 SWR and 33.33w of reflected power on the 150 ohm feedline.
> Where is the reflected power that is "absorbed by the tx"?
>
> A tuner prevents reflected power from reaching the transmitter. If no
> reflected power reaches the transmitter, then no reflected power can
> possibly be "absorbed by the tx".
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1275. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 21:15:23 UTC
From: Ken Bessler <kg0wx@yahoo.com>
Message-ID: <LpZt9.25791$Ju.21356@news2.central.cox.net>
Source record: 132614

<Pappy@USA.net> wrote in message news:3DB801B5.51616400@USA.net...
> Thank you Evan. I ordered the GAP titan DX two days ago.
>
> Sorry about the email, I like to use an anonymous moniker to eliminate
spam.
>

I kinda got into this thread late but......

I've owned a Titan for the last 15 months and it has performed very well. Assembly was a bit hard (lots of parts) but it went together ok. Installation was SCARY! the antenna was mounted on a 15' pole and when I pushed it up from the horizontal position, it really bent over! I had installed 3 parachute cord guy lines at the gap so it has remained quite stable despite the crazy Kansas weather we see here.

I've only had two problems:

1) It dosen't like 50 foot lenghts of coax - I tried 50 foot and got high SWR's. I then added 10 feet with a jumper cable I had and bingo - it worked.

2) I ran into high swr's on 40 - I traced this problem to the position of the loop part of the antenna - after moving it slightly, the SWR's came back down.

Performance has been exceptional for both local and DX contacts. I have a friend (N0JVT) that has an indoor 15 meter dipole and lives across town. With 100 watts and a swr of 1.4:1 I hit him s9+25. Noise levels on the antenna are great - much better than most verticals (I've tried quite a few).

Enjoy your GAP - it's a fine antenna, worth the $$$.

73 de Ken KG0WX

1276. Diamond CP-6 and TVI - TUNE

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 21:31:12 UTC
From: Spiros Xanthopoulos <sxanthop@internet.gr>
Message-ID: <ap9orb$l9c$1@news.internet.gr>
Source record: 132615

Hello everyone.

Anyone has this vertical antenna made by Diamond and had problems tuning it on 40/80m ?

Do you people have any TVI problems ? Anyone complaind ?

73's de SV2EVS - Spiros - KN10KP

www.qsl.net/sv2evs

1277. Re: Figures of Meri t(FOM) and Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 21:48:09 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <qfogruk9bif1cc4noedau1c9mdjh5t1cda@4ax.com>
Source record: 132616

On Thu, 24 Oct 2002 12:52:09 -0700, "Fred Marshall"
<fmarshall@acm.org> wrote:

>There have been threads here that discuss figures of merit for antenna design. In some cases the discussion seems to be narrowly focused - as if there were a single FOM that would / could apply in a design process.
>
>Well, sometimes there is a single FOM that would apply to a product or design. For example, there's a well-accepted FOM often used in passive sonar or radar: FOM = SL - NL +DI - DT
>
>where SL is the signal level, NL is the noise level, DI is the directivity index of the array and DT is the detection threshold in the receiver.
>And, there are similar ones for active sensors and for radio communications as everyone probably knows.
>
>So far, so good.
>
>I wonder if the term FOM as used above isn't sometimes confused with with what might otherwise be more appropriately called the optimization scheme's "cost function" - the thing that is to be minimized or maximized in a design optimization scheme. (I don't really like the term "cost function" but it's the most common term I believe).
>
>Now, what happens when we are doing an optimization? We can still use simple system figures of merit as above in talking about the design that results from an optimization. However, in doing the optimization we also usually need to introduce the design criteria and contstraints in addition to such a figure of merit. So then we would talk about a cost function that combines system performance with underlying parameters. Generally, this requires that there be a combination of results. The most typical is a simple sum of the results stuck into the optimization such as:
>
>Minimize: 0.4 x array sidelobe level and F/B ratio measures + 0.4 x beam width measure + 0.2 x size of the array
>
>- and you can include whatever you like or are able in the combination expression
>- and you can use expressions that aren't simple weighted sums
>
>What's important here is that the 0.4, 0.4 and 0.2 "weights" are usually numbers that have been arrived at arbitrarily - they are subjective.
>In the real world, we may even have to tweak them after getting optimization results - as we learn.
>My final weights and your final weights may well be different for the same optimization.
>
>Also, multiple designs can have the same FOM as used at the top of this message. Usually

optimizations try to arrive at a global optimum - which would be a single result. I say "usually" because some optimization schemes use a blind search that don't guarantee reaching the one and only best result - it depends on where it starts and so forth....
>
>So,
>- FOM (as above) isn't unique (although the optimization cost function may be)
>- optimization cost functions are often subjective
>
>What's the point? Well, it's not that FOMs aren't useful, because they are. The point is we can get all confused if we mix a system or design FOM with an optimization cost function. They aren't the same thing in general. Here's a simple example where they are almost the same:
>
>FOM definition: SL - NL + DI - DT
>
>Cost function definition:
>maximize [SL - NL + DI - DT]=FOM
>minimize 5*DI - 10*DT where 5 and 10 have been selected subjectively / are in that sense arbitrary
>subject to:
>array size less than or equal to 5 feet in its maximum dimension,
>DT is not less than +10dB,
>SL=120dB and NL=-120dB
>
>So, when we talk about optimization of a mix of antenna characteristics, it means that there will either have to be:
>1) Optimize a system FOM all by itself - generally to maximize it. But the one above for a passive receive system is a simple sum so there are any number of individual values that will satisfy it.
>2) Optimization of a cost function that's more complex - which means deciding on the weights. This means that it's arbitrary.
>
>Well, I hope this is helpful or at least thought provoking. Comments?
>
>Fred AC7VR
>

Hi Fred,

I think in the 6Sigma program this is also called "risk analysis."

Your differentiation of cost and merit is useful, but using the terms "subjective" and "arbitrary" without context weakens the discussion.

First, Cost is not cost in a literal sense (or simply dollar$, that merely returns us to FOM). Cost is expressed largely in intangible terms and is a personal burden, hence its subjectivity. That we should reduce ourselves to abstractly numbering our grief makes it arbitrary. However, through this introspective process one divorces the notion that there is a bookkeeper's solution (FOM) that guarantees success; and allows the intangibles (for a fuller reckoning of Ccost) back into the equation.

Problem with this metaphysical approach is that it remains mechanistic and as deterministic as found in the FOM reduction. And, as these FOM mentioned already carry Cost provisions; I would say they have been crafted well enough by Steve to proceed. I would also say that Steve has painted the bull's eye around his own arrow - by invitation - and the host is welshing out with feigned alzheimer's (or is it Fawlty Towers?).

73's
Richard Clark, KB7QHC

1278. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 22:16:33 UTC
From: k1bqt@aol.com
Message-ID: <20021024181633.18149.00000091@mb-cv.aol.com>
Source record: 132617

> I am a scientist, and I expect you to honor the fact that a colleague's time is valuable...<

Turn loose the monkeys! Show those braggarts who's the boss!

Rick K1BQT

1279. Re: Figures of Meri t(FOM) and Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 22:35:37 UTC
From: Fred Marshall <fmarshall@acm.org>
Message-ID: <ap9sne$2gks$1@feed.centurytel.net>
Source record: 132618

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:qfogruk9bif1cc4noedau1c9mdjh5t1cda@4ax.com...
> Hi Fred,
>
> I think in the 6Sigma program this is also called "risk analysis."
>
> Your differentiation of cost and merit is useful, but using the terms
> "subjective" and "arbitrary" without context weakens the discussion.
>
> First, Cost is not cost in a literal sense (or simply dollar$, that
> merely returns us to FOM). Cost is expressed largely in intangible
> terms and is a personal burden, hence its subjectivity. That we
> should reduce ourselves to abstractly numbering our grief makes it
> arbitrary. However, through this introspective process one divorces
> the notion that there is a bookkeeper's solution (FOM) that guarantees
> success; and allows the intangibles (for a fuller reckoning of Ccost)
> back into the equation.
>
> Problem with this metaphysical approach is that it remains mechanistic
> and as deterministic as found in the FOM reduction. And, as these FOM
> mentioned already carry Cost provisions; I would say they have been
> crafted well enough by Steve to proceed. I would also say that Steve
> has painted the bull's eye around his own arrow - by invitation - and
> the host is welshing out with feigned alzheimer's (or is it Fawlty
> Towers?).

Richard,

Re: 6Sigma / Risk Analysis ... interesting. I can surely see where it would apply.

Re: "cost function - cost is not $$cost"
Yep, that's why I said I didn't really like the label.
But, you did catch the point about it departing from bookkeeping!

Mechanistic - yes. But I don't think of it as so "deterministic". Example: I set criteria, look at the result, modify the criteria because I wasn't as well informed prior to the previous step. There are iterations that the computer can do alone and there are iterations that are helped by human observation. I've used this method in best dealing with transition band wigglies in filter design. Of course, the software has to accomodate some change to do this.

I wasn't trying to personalize it. Too many discussions for me to go back, read, study, ponder, etc. So, I was hitting on what seemed like could be a confusion factor all 'round. Simply that standard use of "system FOM" and

use of the term "FOM" in an optimization context are really referring to what are two different things (usually). Mixing them together in discourse is probably not a good idea.

Fred AC7VR

1280. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 22:53:44 UTC
From: k9sqg@aol.com
Message-ID: <20021024185344.19624.00000003@mb-bh.aol.com>
Source record: 132419

Pappy,

I hope you like the Titan, I only have experience with the Challenger. I'm happy with it, very happy.

73s,

Evan

1281. Re: Figures of Meri t(FOM) and Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-24 23:39:58 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <ix%t9.22761$Mb3.883520@bgtnsc04-news.ops.worldnet.att.net>
Source record: 132420

"Fred Marshall" <fmarshall@acm.org> wrote in message
news:ap9sne$2gks$1@feed.centurytel.net...
>
> I wasn't trying to personalize it. Too many discussions for me to go
back,
> read, study, ponder, etc. So, I was hitting on what seemed like could be
a
> confusion factor all 'round. Simply that standard use of "system FOM" and
> use of the term "FOM" in an optimization context are really referring to
> what are two different things (usually). Mixing them together in
discourse
> is probably not a good idea.
>
> Fred AC7VR
>

Hi Fred,

Your comments are well taken. In many years of antenna design, FOM has not been something that I have used - ever. I think most of us work within the boundaries of a complete set of performance specifications and then optimize the design based on well understood performance trade-offs. This could be viewed as a do the best you can everywhere approach but it seems to be universally accepted and understood. I can't recall a single customer in my military or commercial antenna career ever specifying an antenna with a single FOM using a weighted performance algorithm. Your comments on the sonar and radar are noted.

The FOM concept, while perhaps useful in some ways, seems to have some inherent flaws. In many cases, customers don't really understand how antennas work nor do they really appreciate the trade-offs involved in the design process. Most customers specify bandwidth, SWR, gain, beamwidth, polarization, etc and you do your best. Imagine the blank stare you'd get telling the customer that you did not meet his gain spec but you exceeded his bandwidth requirement so that the FOM came out good.

As you and Richard stated, FOMs are a very subjective issue.

Steve VE9SRB

1282. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 00:10:53 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <h_%t9.22827$Mb3.886326@bgtnsc04-news.ops.worldnet.att.net>
Source record: 132421

"Fractenna" <fractenna@aol.com> wrote in message
news:20021024120020.28207.00000007@mb-fp.aol.com...
> >You indicated that
> >you wanted an FOM to work with. I provided the FOM quite awhile ago.
Now
> >you seem to be delaying the process asking me if I want to change the
FOM.
> >I don't. Provide an optimized design whenever you can. If you don't
have
> >the time for this, we can end it right now.
> >
> >Steve VE9SRB
> >
>
> Answer the question as posed: is this the FINAL form of the FOM which, to
the
> best of your ability, is not an ill-posed formulation, but one designed to
> --distinguish-- physically meaningful candidates in an optimization
scheme?
> Are you convinced that it has no pathological behavior? Are you convinced
of
> its validity?
>
> I will not discuss it any further. What I expect from a scientist is:
'here is
> the best formulation I wish to proffer upon an objective and thoughtful
review
> and conference with colleagues.'
>
> Are you saying this?
>
> Cordially,
>
> NC
>

I was unaware that you required a Best and Final FOM before you could
proceed.

I provided the requested FOM a month or two ago. You said you would respond
with an optimized design in October.

The FOM stands as originally posted. What is the expected delivery date of
the optimized design?

Steve VE9SRB

1283. Re: Hamstick's optional (additional) whips

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 00:18:08 UTC
From: Alan Beagley <abeagley@optonline.net>
Message-ID: <3DB88DC2.1010609@optonline.net>
Source record: 132422

My guess is that they are replacements for missing or cut-too-short whips.

-=-
Alan, AB2OS

Andreas Hofmann wrote:
> Hi,
>
> Has anyone use the Extra tapered whips for the hamsticks? I am wondering
> whether they are supposed to increase radiation efficiency? There seems to
> be no info available about them. From www.hamstick.com website:
>
> a.. TW-1 Extra 47 inch tapered whips $5.95
> a.. TW-2 Extra 59 inch tapered whips $6.95

1284. Re: rec.radio.amateur.antenna Standards??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 00:28:58 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <ef0u9.22847$Mb3.889183@bgtnsc04-news.ops.worldnet.att.net>
Source record: 132423

"Fred Marshall" <fmarshall@acm.org> wrote in message
news:ap4b8r$1ien$1@feed.centurytel.net...
> I've been mostly lurking for the last few weeks. My hope was that there'd
> be some really interesting discussion about antennas here. My impression
so
> far is disappointing because there is so much flaming / impolite messages,
> off topic stuff etc.
>
> Are there no standards of discourse in rec.radio.amateur.antenna ??
>
> Or, does one simply filter out certain senders? That would be a shame to
> contemplate.
>
> There are certainly examples of newsgroups where folks do stick to the
> purpose and avoid too much flaming. Can that happen here?
>
> Fred AC7VR
>

Fred,

For the most part, the NG is very interesting and a lot of informative
discussions occur.

A good analogy is television: sometimes its like watching the Discover
channel and you learn some neat things. Sometimes its like watching
Seinfeld - it never makes sense unless you simply appreciate the humor in
it.

Steve VE9SRB

1285. Re: Hamstick's optional (additional) whips

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 00:53:31 UTC
From: John Passaneau <w3jxp@adelphia.net>
Message-ID: <fC0u9.44520$m92.8556733@news1.news.adelphia.net>
Source record: 132424

Also some use the longer whips is a higher frequency coil to make a longer
and more efficient antenna.
Like using a 20m ham stick on 40m with a longer whip.

--
John Passaneau W3JXP
State College, Pa
w3jxp@adelphia.net

"Alan Beagley" <abeagley@optonline.net> wrote in message
news:3DB88DC2.1010609@optonline.net...
> My guess is that they are replacements for missing or cut-too-short whips.
>
> -=-
> Alan, AB2OS
>
>
> Andreas Hofmann wrote:
> > Hi,
> >
> > Has anyone use the Extra tapered whips for the hamsticks? I am
wondering
> > whether they are supposed to increase radiation efficiency? There seems
to
> > be no info available about them. From www.hamstick.com website:
> >
> > a.. TW-1 Extra 47 inch tapered whips $5.95
> > a.. TW-2 Extra 59 inch tapered whips $6.95
>

1286. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 00:54:44 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB89654.A2E46FFE@ieee.org>
Source record: 132425

Richard Fry wrote:
>
> In that case the tuner is matching the net impedance of the line and antenna
> to the tx, and power transfer is maximized. Without the tuner, the tx
> PA/output network (and line) can dissipate part of the reflected power.

Please read what you said again. You said "if the Zs are matched the reflection
is absorbed by the tx. If it is not well matched ... some is absorbed by the
tx." I pointed out a case where none is absorbed by the tx.
> ----------------
>
> "CAM" <Cecil.A.Moore@ieee.org> wrote in message
> news:3DB80799.219A8333@ieee.org...
> > Richard Fry wrote:
> > > Considering a transmit antenna system, if the Z of the transmission line
> is
> > > not matched to the input Z of the antenna it is connected to, the
> antenna
> > > will reflect some of the power in the line back to the transmitter (tx).
> > > What happens then depends on the Z match of the line to the tx. If Zs
> are
> > > matched there, the reflection is absorbed by the tx and dissipated as
> heat.
> > > If is not well matched, some is reflected back up the line, and some is
> > > absorbed by the tx.
> >
> > Here's a recent example:
> >
> > 100w XMTR----50 ohm feedline---x---1/2WL 150 ohm feedline---50 ohm load
> >
> > There is a 4:1 SWR and 33.33w of reflected power on the 150 ohm feedline.
> > Where is the reflected power that is "absorbed by the tx"?
> >
> > A tuner prevents reflected power from reaching the transmitter. If no
> > reflected power reaches the transmitter, then no reflected power can
> > possibly be "absorbed by the tx".
> > --
> > cheers, CAM http://www.qsl.net/w5dxp
> >
> >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1287. Re: Vertical? Which one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 00:55:52 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB89698.9791C67@ieee.org>
Source record: 132426

David wrote:
> Nothing better than the Butternut HV9.

Nothing better than zero dBi? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1288. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 01:21:41 UTC
From: Al <ABurzynski@nojunk.satx.rr.com>
Message-ID: <F01u9.209815$121.5806500@twister.austin.rr.com>
Source record: 132427

Gentlemen,

Thank you for your comments (although a little heated in spots! All are friends in this group, right?). I appreciate the info and the references for additional reading. I'm going to need a little time to try and digest all this, but I believe I get the basic ideas. I just purchased the ARRL Antenna Book, perhaps this will throw some good light on the subject.

My present rig is an older Icom IC-745 which puts out about 70 watts max. Maybe I don't even need to worry about a tuner, but I prefer to be safe and not blow the rig. Thanks again.

Al
KA5JGV

1289. Collins Radio Antenna Compendium

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 01:44:01 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <Bl1u9.93857$%d2.35093@sccrnsc01>
Source record: 132428

Long ago, long before the League used the term, Collins had a small spiral bound book with a blue cover and it was named the Antenna Compendium. I had a copy, but donated it to a local Ham library which has since become non-local.

The book contained a section on electrically short verticals and showed a nomograph regarding radials. To my recollection, it indicated that for a given length of wire, you were better off with a few long radials than many short ones. I can't find that replicated in any form in Jasik, would someone out there by any chance have a copy of the Collins book and could refresh my decaying memory? I'd be happy to reimburse any costs to duplicate those 2-3 pages or a .PDF would be super.

W4ZCB

1290. Re: Figures of Meri t(FOM) and Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 02:14:24 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <apa9e1$4u9$1@slb6.atl.mindspring.net>
Source record: 132429

Fred, Steve, Richard, et al:

To clarify...

In the context of this thread and its' predecessors, the Figure of Merit [FOM] requested by Dr. Cohen is [apparently] indeed intended to be used directly as the "objective function" in a Genetic Algorithm optimization routine. Here the term objective function and FOM are both used in the sense of classical mathematical optimization techniques.

As Steve has alluded in a recent post, and as Fred has pointed out... an "objective function" is usually always required by computer optimization routines in order for such routines to have a quantitative and evaluateable [is that a word?] "objective" to minimize [or maximize as the case may be].

In Dr. Cohen's case since he has thrown down a challenge and has proposed a design competition between his [apparently proprietary] Genetic Algorithm powered by a cluster of microcomputers and Steve Best's best intuitive/manual designs.

This recent challenge [Along with the request for a quantative objective function/FOM.] was/is in direct response to a somewhat embarassing challenge thrown down last year by Dr. Cohen to this whole USENET NG [Along with a $1000 prize which was never paid!] in which Dr. Cohen's best GA/fractal antenna design was beaten hands down by simple arbitrary geometry antenna designs proposed by Steve Best. In fact Dr. Cohen has been making rather extravagant claims for the superiority of fractal antennas over all other designs for several years on this USENET NG. Even though there are clearly an infinity of [non-fractal] geometries which could equal or exceed the performance of any given fractal antenna design. This approach and series of challenges is apparently an effort to help secure some kind of supposed intellectual property/patent position which is claimed by Fractal Antenna Systems or Dr. Cohen or both.

The question as to the relevance or true meaning of a mathematical objective function constructed and supplied as a function to a computer routine [Genetic Algorithm or any algorithm for that matter] as a design requirement is an entirely different manner.

To paraphrase an old saying [beauty is in the eye...] it could be said that "the beauty of an objective function is in
the eye of the designer".

Because of the aggressive and sometimes absurd challenges and proposals of Dr. Cohen for his fractal antenna
design approaches and apparently proprietary genetic algorithm mathematical optimization techniques and
multi-megaflop computer expoits and his embarassing defeats at the hands of simpler design methods, he
now appears to desire to recoup that ignominy with a pure effort at maximizing/minimizing a mathematically
constructed objective function.

Well Steve Best being no shirker has indeed given Dr. Cohen his quantative objective function, and it matters
not a whit as to its' suitability as a design objective.

It's just a contest of antenna design gladiators.

The Cyborg versus the Man.

GA/fractal/super-computer versus a single man with a good eye for design and a slide rule.

The Scientist versus the Engineer... Fractals versus arbitrary geometry.

Dr. Cohen has his FOM... I say let him stop fussing, he's lost these design competitions in the past. If this
NG had been the Roman Collesium, then Dr. Cohen would have been dragged out along with the bodies
of the Christians eaten by the wild beasts. But no... he keeps coming back.

Now... let the games begin.

The rest of the "mob", er... NewsGroup will sit here in the stands and watch the carnage.

Anyone taking bets? I'll ante up 1000 drachmas myself for the arbitrary/slide rule approach.

Best,

--Peter K1PO
Indialantic By-the-Sea, FL.

"VE9SRB" <srbest@att.net> wrote in message
news:ix%t9.22761$Mb3.883520@bgtnsc04-news.ops.worldnet.att.net...
>
> "Fred Marshall" <fmarshall@acm.org> wrote in message
> news:ap9sne$2gks$1@feed.centurytel.net...
> >
> > I wasn't trying to personalize it. Too many discussions for me to go
> back,
> > read, study, ponder, etc. So, I was hitting on what seemed like could

be
> a
> > confusion factor all 'round. Simply that standard use of "system FOM"
and
> > use of the term "FOM" in an optimization context are really referring to
> > what are two different things (usually). Mixing them together in
> discourse
> > is probably not a good idea.
> >
> > Fred AC7VR
> >
>
> Hi Fred,
>
> Your comments are well taken. In many years of antenna design, FOM has
not
> been something that I have used - ever. I think most of us work within
the
> boundaries of a complete set of performance specifications and then
optimize
> the design based on well understood performance trade-offs. This could be
> viewed as a do the best you can everywhere approach but it seems to be
> universally accepted and understood. I can't recall a single customer in
my
> military or commercial antenna career ever specifying an antenna with a
> single FOM using a weighted performance algorithm. Your comments on the
> sonar and radar are noted.
>
> The FOM concept, while perhaps useful in some ways, seems to have some
> inherent flaws. In many cases, customers don't really understand how
> antennas work nor do they really appreciate the trade-offs involved in the
> design process. Most customers specify bandwidth, SWR, gain, beamwidth,
> polarization, etc and you do your best. Imagine the blank stare you'd get
> telling the customer that you did not meet his gain spec but you exceeded
> his bandwidth requirement so that the FOM came out good.
>
> As you and Richard stated, FOMs are a very subjective issue.
>
> Steve VE9SRB
>
>

1291. Source for Mini-8 coax

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 02:34:30 UTC
From: lc <larryc@northwest.com>
Message-ID: <3DB8ADB6.265DFCBC@northwest.com>
Source record: 132430

Seeking local source (washington, oregon, california) for Mini-8 coax.

Suggestions welcomed.

--
Welcome to Oregon - "The Food Stamp State"

1292. Converting a G5RV to a Delta Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 02:38:23 UTC
From: rcuffee@hotmail.com
Message-ID: <df27559b.0210241838.7aae8f6b@posting.google.com>
Source record: 132431

I have a G5RV jr (52 feet 10-40 meters), and I have it installed as an inverted vee at 35 feet, the ends are about 15 feet off the ground. If I add 35 feet between the ends of the G5RV to creat a delta loop, would this improve the performance of the antenna? Currently I can tune on 10-40 except 30 meter using the rig's ATU.

Thanks,

RC

1293. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 02:48:54 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <46chruse7s7o6l3pqb8u1sm60jpkcbvobb@4ax.com>
Source record: 132432

On 24 Oct 2002 16:00:20 GMT, fractenna@aol.com (Fractenna) wrote:

>>You indicated that
>>you wanted an FOM to work with. I provided the FOM quite awhile ago. Now
>>you seem to be delaying the process asking me if I want to change the FOM.
>>I don't. Provide an optimized design whenever you can. If you don't have
>>the time for this, we can end it right now.
>>
>>Steve VE9SRB
>>
>
>Answer the question as posed: is this the FINAL form of the FOM which, to the
>best of your ability, is not an ill-posed formulation, but one designed to
>--distinguish-- physically meaningful candidates in an optimization scheme?
>Are you convinced that it has no pathological behavior?

I'm convinced Nathan Cohen's behavior on this newsgroup has been, is
now, and ever will be pathological.

> Are you convinced of
>its validity?
>
>I will not discuss it any further. What I expect from a scientist is: 'here is
>the best formulation I wish to proffer upon an objective and thoughtful review
>and conference with colleagues.'
>
>Are you saying this?
>
>Cordially,
>
>NC
>

What an arrogant, unethical twerp Cohen is.

Who is Nathan Cohen? <http://opsyhopsy.com/MiscJunk/who_is_nc.htm>

1294. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 03:20:13 UTC
From: fractenna@aol.com
Message-ID: <20021024232013.27890.00000151@mb-mf.aol.com>
Source record: 132433

>
>"Fractenna" <fractenna@aol.com> wrote in message
>news:20021024120020.28207.00000007@mb-fp.aol.com...
>> >You indicated that
>> >you wanted an FOM to work with. I provided the FOM quite awhile ago.
>Now
>> >you seem to be delaying the process asking me if I want to change the
>FOM.
>> >I don't. Provide an optimized design whenever you can. If you don't
>have
>> >the time for this, we can end it right now.
>> >
>> >Steve VE9SRB
>> >
>>
>> Answer the question as posed: is this the FINAL form of the FOM which, to
>the
>> best of your ability, is not an ill-posed formulation, but one designed to
>> --distinguish-- physically meaningful candidates in an optimization
>scheme?
>> Are you convinced that it has no pathological behavior? Are you convinced
>of
>> its validity?
>>
>> I will not discuss it any further. What I expect from a scientist is:
>'here is
>> the best formulation I wish to proffer upon an objective and thoughtful
>review
>> and conference with colleagues.'
>>
>> Are you saying this?
>>
>> Cordially,
>>
>> NC
>>
>
>I was unaware that you required a Best and Final FOM before you could
>proceed.
>
>I provided the requested FOM a month or two ago. You said you would respond
>with an optimized design in October.
>
>The FOM stands as originally posted. What is the expected delivery date of

>the optimized design?
>
>Steve VE9SRB
>

You have now given your final word on the requested figure of merit.

The 'failure' or 'success' of any optimization--whether it is conducted by a person or a machine--is only as good as the UNDERSTANDING and the INPUT so provided.

Thus, I expect you will accept responsibility for any failure--if there is one or more--if the problem so pursued is ill-posed and NOT scientific in its methodology.

I did my best to alert you. My conscience is clear.

I will run the analysis in early/mid November and a full analyses will be publicly disseminated on www.n1ir.com sometime after Thanskgiving.

I will remind all interested parties of the existence of said analysis and critique after that date. I will be obligated to cite it when any relevant issue arises on 'Steve Best' and fractal antenna work. This is not in any way meant nor intend as a personal attack, but a clear and objective statement of facts, all presented as knowingly true.

If there are statements which are not factually accurate presented, in error, I will be happy to correct them to indicate the truth.

>
>"Fractenna" <fractenna@aol.com> wrote in message
>news:20021024120020.28207.00000007@mb-fp.aol.com...
>> >You indicated that
>> >you wanted an FOM to work with. I provided the FOM quite awhile ago.
>Now
>> >you seem to be delaying the process asking me if I want to change the
>FOM.
>> >I don't. Provide an optimized design whenever you can. If you don't
>have
>> >the time for this, we can end it right now.
>> >
>> >Steve VE9SRB
>> >
>>
>> Answer the question as posed: is this the FINAL form of the FOM which, to
>the
>> best of your ability, is not an ill-posed formulation, but one designed to
>> --distinguish-- physically meaningful candidates in an optimization
>scheme?
>> Are you convinced that it has no pathological behavior? Are you convinced
>of
>> its validity?
>>

>> I will not discuss it any further. What I expect from a scientist is:
>'here is
>> the best formulation I wish to proffer upon an objective and thoughtful
>review
>> and conference with colleagues.'
>>
>> Are you saying this?
>>
>> Cordially,
>>
>> NC
>>
>
>I was unaware that you required a Best and Final FOM before you could
>proceed.
>
>I provided the requested FOM a month or two ago. You said you would respond
>with an optimized design in October.
>
>The FOM stands as originally posted. What is the expected delivery date of
>the optimized design?
>
>Steve VE9SRB
>

The analysis will be conducted in early/mid November, and then posted on a web site, after Thanksgiving, for rapid and global dissemination.It will be on www.n1ir.com then.

I trust you, as myself, will make efforts to let the antenna community as a whole know these results. It is important that such a clear example of how a problem is pursued, and what it means, be made widely available.

I have full confidence that this will close the final chapter in the so-called debunking of fractal antennas. I will then place all public efforts on IP enforcement, which is the real issue.

BTW, did you see Dr. Rahmat-Samii's press release? I thought it would interest you. It interested me:

http://www.sciencedaily.com/releases/2002/10/021022070904.htm

While you've been busy as a bee trying to debunk fractal antennas, Dr. Rahmat-Samii seems to be claiming a curious status with respect to the field.

It's good to be retired from academia. It gives you a fresh perspective.

Best,

Chip N1IR

1295. Re: Converting a G5RV to a Delta Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 03:26:21 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB8B9DD.C6041465@ieee.org>
Source record: 132434

RC wrote:
> I have a G5RV jr (52 feet 10-40 meters), and I have it installed as an
> inverted vee at 35 feet, the ends are about 15 feet off the ground. If
> I add 35 feet between the ends of the G5RV to creat a delta loop,
> would this improve the performance of the antenna?

Performing random modifications to a working antenna usually results
in less performance. Why not download the free demo version of EZNEC
from http://www.eznec.com and see for yourself.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1296. Yaesu ATAS-100 Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 03:44:09 UTC
From: Jack Leishman <k8xx@gtii.com>
Message-ID: <urhffe2qsr1ba7@corp.supernews.com>
Source record: 132435

I bought an ATAS-100 and it never worked properly. After emailing Yaesu for help, they offered only a new base section for about $160.00 plus shipping. The problem I was having was an open circuit from the bottom ground to the next ground up about about 3 inches located at the circuit board. An ohmmeter easily confirms this problem. The bottom most 3 inch section is RF open, but a DC path for the motor control circuit. It probably has a an RF transformer of such, but it is a sealed unit and no information is apparently available for it. The antenna is usless with the DC path open. I found that winding 22 turns of insulated # 16 wire around the lower 3 inch base section corrects the problem and the antenna works as well or better than original. It is necessary to drill and tap a new 8-32 screw hole in the bottom ferel and connect the top of the coil to the screw already in place. Wrap tape or shink wrap the coil and you are back in business. I soldered ring connectors on both ends of the coil.....it sure beats paying the big bucks.....I had the stuff in my junk box. It works very well on 40 as I suspected in may not have enough inductance at that frequency. 6 meters tunes very well and radiates good as well. I haven't compared it against the original, but from an operational; point of view it seems to work better than ever, as mine was apparently bad from the start I have no benchmark. Feel free to pass this on as I hope this information helps others in this same situation.....jack k8xx
PS.... I have learned that DC controls voltages below 10 volts cause the antenna to move one direction and voltages above 10 volts cause it to go the other direction. Also use Google to search for other helful hints on the antenna.

--
Jack Leishman
Spectrum Radio Service
1551 Hammond Rd. East
Traverse City, MI 49686
231-947-9062
Ebay ID: radiotradio
k8xx@gtii.com or leishman@michcom.com
home page: http://www.traverse.net/members/k8xx

1297. Designing a small antenna for a small keychain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 04:44:08 UTC
From: nleahcim@hotmail.com
Message-ID: <81b26b90.0210242044.162117e1@posting.google.com>
Source record: 132436

Hi - I'm using a TLP434A and RLP-434A
(http://www.laipac.com/datasheets/Easy%20Link%20Wireless/TLPRLP434A.pdf)
and have no idea of what kind of antenna I should use for either the
transmitter or the reciever. The transmitter antenna needs to be very
small since it will be housed inside a keychain - but the reciever
antenna is not very limited in size. Unfortunately, I know very, very
little about antenna design, or, for that matter, electronics. Could
someone please help me with this? Thanks so much for your time!

Michael Noone
Corvallis, Oregon

1298. Re: Source for Mini-8 coax

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 05:28:19 UTC
From: Bob Nielsen <nielsen@remove_this.oz.net>
Message-ID: <apakpj$e8g$0@216.39.144.81>
Source record: 132437

On Thu, 24 Oct 2002 19:34:30 -0700, lc wrote:
> Seeking local source (washington, oregon, california) for Mini-8 coax.
>
> Suggestions welcomed.

HRO in Tigard, OR.

Radio Shack (practically everywhere).

1299. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 05:45:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urhmj6hs171f7d@corp.supernews.com>
Source record: 132438

Fractenna wrote:
> . . .
> I have full confidence that this will close the final chapter in the so-called
> debunking of fractal antennas. . .
>. . .

Do you mean that a single design produced by a genetic optimizer to optimize a single numerical figure of merit constitutes final and convincing proof that fractal antennas are superior to all other types of antennas of equal size, as is often claimed or implied?

Scientist, indeed.

Roy Lewallen, W7EL

1300. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 06:04:33 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <R95u9.1868$z5.1252251@newssvr28.news.prodigy.com>
Source record: 132439

Remember the "Space Wave" antenna series in Ham Radio many moons ago. I
feel like I am re-living that with this discussion.

--
Larry N8LP

"Rick Littlefield" <k1bqt@aol.com> wrote in message
news:20021024181633.18149.00000091@mb-cv.aol.com...
> > I am a scientist, and I expect you to honor the fact that a colleague's
> time is valuable...<
>
> Turn loose the monkeys! Show those braggarts who's the boss!
>
> Rick K1BQT

1301. Re: Figures of Meri t(FOM) and Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 07:33:38 UTC
From: Fred Marshall <fmarshall@acm.org>
Message-ID: <apas86ekt1@feed.centurytel.net>
Source record: 132440

"VE9SRB" <srbest@att.net> wrote in message
news:ix%t9.22761$Mb3.883520@bgtnsc04-news.ops.worldnet.att.net...
>
> "Fred Marshall" <fmarshall@acm.org> wrote in message
> news:ap9sne$2gks$1@feed.centurytel.net...
> >
> > I wasn't trying to personalize it. Too many discussions for me to go
> back,
> > read, study, ponder, etc. So, I was hitting on what seemed like could
be
> a
> > confusion factor all 'round. Simply that standard use of "system FOM"
and
> > use of the term "FOM" in an optimization context are really referring to
> > what are two different things (usually). Mixing them together in
> discourse
> > is probably not a good idea.
> >
> > Fred AC7VR
> >
>
> Hi Fred,
>
> Your comments are well taken. In many years of antenna design, FOM has
not
> been something that I have used - ever. I think most of us work within
the
> boundaries of a complete set of performance specifications and then
optimize
> the design based on well understood performance trade-offs. This could be
> viewed as a do the best you can everywhere approach but it seems to be
> universally accepted and understood. I can't recall a single customer in
my
> military or commercial antenna career ever specifying an antenna with a
> single FOM using a weighted performance algorithm. Your comments on the
> sonar and radar are noted.
>
> The FOM concept, while perhaps useful in some ways, seems to have some
> inherent flaws. In many cases, customers don't really understand how
> antennas work nor do they really appreciate the trade-offs involved in the
> design process. Most customers specify bandwidth, SWR, gain, beamwidth,
> polarization, etc and you do your best. Imagine the blank stare you'd get
> telling the customer that you did not meet his gain spec but you exceeded
> his bandwidth requirement so that the FOM came out good.

>
> As you and Richard stated, FOMs are a very subjective issue.
>
> Steve VE9SRB

Steve,

I think we agree in principle. But, with all respect, I'm afraid I can't agree if I'm to maintain the context set forth - which I do feel is important. That was, the term "FOM" is best left as a measure of system performance as in the example given. And, the term "cost function" is something with a different meaning. (I might have used the optimization term "objective function").

I didn't say that FOMs are subjective. I said that "cost functions" (or "objective functions") are often subjective. I tried to make a distinction between the two because I'm suggesting that it helps to differentiate what we're talking about.

Oh my! I just noticed a terrible accident / play on words: the "objective function" is often subjective. Yep. I don't imagine we should try to invent a new term though such as "goal function". :-) But, I digress.

In the context that I was trying to establish, "real" FOMs are of a very objective type and one may find them quite useful. For example, antenna gain to noise temperature ratio G/T is often used as an antenna or receiver figure of merit. Nothing subjective about that. For Yagis we often see the front-to-back ratio alluded to as a type of figure of merit for directional arrays. Also, not at all subjective.

I also gave an example of why this type of objective FOM was different from an optimization "cost function" or "objective function" - which is really a misnomer because the "function" may well not really be a function but a conglomeration of constraints, weights and measures.

I'm sure the customer would be happy if you said you'd met all of the specifications within the constraints and, oh by the way, the G/T of the antenna is X. Or, perhaps better still, that the specified FOM of the antenna (as in G/T or F/B ratio) was exceeded while meeting all of the other spec's and constraints. This works as long as the "FOM" we're talking about here is something simple like G/T.

At the same time, I'm sure that the customer would yawn if you said that you needed to tweak the objective function weights in your favorite software tool three times in order to achieve the wonderful design reported above. In fact, the customer would yawn about any of the details of the process that you used in reaching the design. So, if you designed the antenna by the seat of your pants through some intuitive process that would also be equally off topic. But, it might be interesting!!

So, with that small objection / clarification about terminology I hope we agree.

Fred

1302. Re: Converting a G5RV to a Delta Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 08:48:03 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apb0g3$p3p$1@helle.btinternet.com>
Source record: 132441

By now you must have tried it. How did it go?

1303. antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 08:51:06 UTC
From: big boy now <shogun1965@lycos.co.uk>
Message-ID: <5C7u9.4798$862.957@news-binary.blueyonder.co.uk>
Source record: 132442

I am using a Yaesu VR5000 communications receiver.
to monitor all the ham radio bands. I have no problems hear.
I use a random long wire with a yaesu FRT-7700 ATU.
the receiver goes from 0.1 right up to 2599.99998MHz.
with the following bands /cw/ lsb/usb /am / am-n / am-w/ fm-n/fm-w/
I want to try listening to space communications.. and would like some advice
from you ham radio experts....I want to get the best possible use from my
receiver and want advice on antennas...I don't really want to go down the
road of beams and rotors I want to do that later if I pass the foundation
licence.......can anybody give me advice on what is my best antennas to use
at this time I am using long wire and a standard discone.
but want to listen to space coms and anything else higher up in the
frequencies....please help thanks email your help to me at
shogun1965@lycos.co.uk
Many thanks in advance --- John
_____ john
ICQ#: 84317226 Current ICQ status: + More ways to contact me i See more
about me: _____

1304. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 11:41:29 UTC
From: k1bqt@aol.com
Message-ID: <20021025074129.16746.00000259@mb-cr.aol.com>
Source record: 132443

> I will be obligated to cite it when any relevant issue arises on 'Steve Best' and fractal antenna work.<

Huh? What's this?

>This is not in any way meant nor intend as a personal attack, but a clear and objective statement of facts, all presented as knowingly true.<

Once again, any nugget of legitimacy to be gleaned from Chip's scientific work washes downstream beneath a crashing wave of narcissistic pseudo-rhetorical babble. It all seems so unnecessary and self-defeating.

Rick K1BQT

1305. Re: Yaesu ATAS-100 Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 12:39:36 UTC
From: K4IA <K4ia@novacoxmail.com>
Message-ID: <cYau9.8887$gA1.674199@news2.east.cox.net>
Source record: 132444

Technical drawings for this antenna and more info is available at
http://www.k0lee.com/ft100faq.html

--
Radio K4IA
Craig "Buck"
Fredericksburg, Virginia USA

FISTS 6702 CC 788 Diamond 64
K1# 470 K2# 2460
> I bought an ATAS-100 and it never worked properly. After emailing Yaesu
> for help, they offered only a new base section for about $160.00 plus
> shipping. The problem I was having was an open circuit from the bottom
> ground to the next ground up about about 3 inches located at the circuit
> board. An ohmmeter easily confirms this problem. The bottom most 3 inch
> section is RF open, but a DC path for the motor control circuit. It
> probably has a an RF transformer of such, but it is a sealed unit and no
> information is apparently available for it. The antenna is usless with
the
> DC path open. I found that winding 22 turns of insulated # 16 wire around
> the lower 3 inch base section corrects the problem and the antenna works
as
> well or better than original. It is necessary to drill and tap a new 8-32
> screw hole in the bottom ferel and connect the top of the coil to the
screw
> already in place. Wrap tape or shink wrap the coil and you are back in
> business. I soldered ring connectors on both ends of the coil.......it
sure
> beats paying the big bucks.....I had the stuff in my junk box. It works
> very well on 40 as I suspected in may not have enough inductance at that
> frequency. 6 meters tunes very well and radiates good as well. I
haven't
> compared it against the original, but from an operational; point of view
it
> seems to work better than ever, as mine was apparently bad from the start
I
> have no benchmark. Feel free to pass this on as I hope this information
> helps others in this same situation.......jack k8xx
> PS.... I have learned that DC controls voltages below 10 volts cause the
> antenna to move one direction and voltages above 10 volts cause it to go
the
> other direction. Also use Google to search for other helful hints on the
> antenna.
>
> --

> Jack Leishman
> Spectrum Radio Service
> 1551 Hammond Rd. East
> Traverse City, MI 49686
> 231-947-9062
> Ebay ID: radiotradio
> k8xx@gtii.com or leishman@michcom.com
> home page: http://www.traverse.net/members/k8xx
>
>
>

1306. Re: Converting a G5RV to a Delta Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 13:05:34 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apbfit$j4q$1@venus.btinternet.com>
Source record: 132445

"Reg Edwards" wrote
> By now you must have tried it. How did it go?
==========

. . . and by now everybody except me has tried it. How did it go ?

I would guess any improvement in some directions and angles on some bands would be averaged-out by worsening in other directions and angles on other bands.

Reg, G4FGQ

1307. Loop in attic - radiation pattern?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 13:09:27 UTC
From: Dick <boleyd@yahoo.com>
Message-ID: <bobu9.35248$Lg2.9255225@news2.news.adelphia.net>
Source record: 132446

If I install a loop in my 24'x35' attic (horizontal) will the radiation be
just up and down? Down being into the shack in the room below.
Thanks,
Dick N3HKN

1308. Re: antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 13:22:53 UTC
From: richardharrison@webtv.net
Message-ID: <4923-3DB945AD-333@storefull-2317.public.lawson.webtv.net>
Source record: 132447

John wrote:
"I am using long wire and a standard discone, but want to listen to space coms and anyhing higher up in the frequencies."

John`s receiver limits, he says, his reception to less han 2.6 GHz! For higher frequencies, he will need another receiver or converter.

A discone works over several octaves well, based on its size. It is vertically polarized and has a null at its zenith.

For best performance from 0.1 MHz to 2.6 GHz requires several antennas. To listen to space coms may require several antennas, and reception from nearly directly overhead where the dscone has a null. A crossed dipole (turnstile) may be better for zenith rception, or an array of such antennas may be needed for more gain. The array cramps the non-directional style.

A wire 25 to 50 feet long placed as high as possible may get shortwave signals well.

For medium waves and low frequencies, groundwaves are vertically polarized, so only vertically polarized rods and loops, and vertically polarized "wave antennas", are effective.

In noisy locations, balanced, horizontal antennas pick up less noise on HF bands.

Best regards, Richard Harrison, KB5WZI

1309. Re: antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 14:07:11 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apbj6emnp1@sparta.btinternet.com>
Source record: 132448

```
"> In noisy locations, balanced, horizontal antennas pick up less noise on
> HF bands.
>
> Best regards, Richard Harrison, KB5WZI

=========================================

What is never mentioned in this context is that horizontal antennas also
pick up less signal coming in at low angles, the best of the DX. One must
be careful not to throw the baby away with the bathwater.
---
Reg G4FGQ
```

1310. Re: Delta Loop Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 14:25:18 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DB95417.E56F659@uwe.ac.uk>
Source record: 132449

Larry Phipps wrote:
>
snip
> If you use a SG237, make
> sure that you have a good ground and/or counterpoise. The 237 won't work
> right in a balanced feed system unless the ground side is clearly defined,
> because the 237 is unbalanced by design. This can be done with a dipole by
> making the ground leg 5% longer than the other. With corner feed, if you
> just connect the ground leg of the 237 to the lower wire, you'll probably be
> allright.
>

Not so. My SGC 230 works just fine in a balanced configuration, with choke
balun coils in the coax _and_ control cables. No significant RF in the shack.
No problems for the SGC. It tunes my random length dipole (~100ft) on all
bands. If there is a good balun I don't see how the SGC can tell which side
is ground, because neither is.

A delta loop doesn't work against a ground, does it? AFAIK it's a balanced design.

vy 73

Andy, M3ABC

1311. Speaking of horizontal loops...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 15:27:50 UTC
From: JJS <jarrodsmith@hotmail.com>
Message-ID: <uriocfeuppc537@corp.supernews.com>
Source record: 132450

Thinking of using a horizontal loop and was just wondering if anyone has used something like two loops together; sort of like a circle within a circle...
Maybe like one of them as a driven element and the other as the reflector or director depending on frequency maybe?
Any thoughts or ideas?
Also any thoughts on phasing two loops?
Horizontal loops that is...

--
JJ Smith,
K5RPD
www.k5rpd.com

1312. Re: Loop in attic - radiation pattern?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 15:34:17 UTC
From: richardharrison@webtv.net
Message-ID: <22580-3DB96479-337@storefull-2318.public.lawson.webtv.net>
Source record: 132451

Dick wrote:
"If I install a loop in my 24`x35` (horizontal) attic will the radiation be just up and down?"

A 1/2-wave perimeter closed loop has a diameter of 0.16 wavelength and at the feedpoint appears as a high-impedance parallel-resonant circuit. Radiation resistance is about 4.5 ohms as determined at the high-current point in the loop opposite the feedpoint. The high feedpoint resistance varies as the smallness of the conductor.

A 20-ft diameter loop has its first resonance at the frequency where its diameter is 0.16 wavelength. If 6.1 meters is 0.16 wavelength, the loop is resonant at 38 meters.

The 20-ft diameter loop at 7.9 MHz (38 meters) has a slight gain in the direction of the high-current point opposite the feedpoint. It also favors the vertical axis of the horizontal loop.

If this 20-foot diameter horizontal loop were used at 160 meters, the current wouldn`t be much different anywhere in the loop. The perimeter is too small in terms of wavelength. The radiation resistance would be very low making conductor loss a large part of the load.

The small phase difference of current around the loop at 160 meters would make the loop omnidirectional in the horizontal plane. Problem is the low efficiency. There is a null in radiation on the axis of a very small loops, so the up and down radiation of such a horizontal loop is further reduced. It would probably be an antenna of last resort.

Best regards, Richard Harrison, KB5WZI

1313. Re: Loop in attic - radiation pattern?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 15:48:40 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <3DB967D8.BF6984E0@ziplog.com>
Source record: 132452

Dick ..

Dick wrote:

> If I install a loop in my 24'x35' attic (horizontal) will the radiation be
> just up and down? Down being into the shack in the room below.
> Thanks,
> Dick N3HKN

After doing calculations on my Low Band 4 Square vertical arrays to check the field levels sorta nearby in the house I was suprised. There was less to worry about closer to them than I thought. In theory, I could stand maybe a dozen feet from one of the elements key down continuously on CW for a while and not be over the limit. But the game got more serious quickly as the frequency moved up.

I suddenly saw that might not be so good an idea right under a tri-bander mounted on the chimney with the shack in the attic next to the chimney.

Sitting in close proximity to an attic loop obviously has a relationship to how much power you are going to run, one would think. A QRP addict (attic? grin!) would be a brainer! OTOH, running RTTY and and almost always on-the-air bulletin operation on a higher band and snoozing under it for days and days all the time might be a no brainer too!

Use one of the calculations packages out there on the web. I'm not at the station site now, but if you don't find it or something useful in a GOOGLE search or whatever, and nobody else offers, I'll post a way to get at the University of Texas utility which was a free use program for checking this. With a little bit of work you'll get a much better insight into the issue.

Bottom line. From extrapolating what I learned at the fixed site, attic antenna work is probably fine for generalized low power work, surely on 40, 80 and so on. OTOH my comment might generated some 'heated' discusion!

;)

--

--> Sleep well; OS2's still awake! ;)

Mike Luther

1314. Re: Speaking of horizontal loops...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 15:52:29 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DB968B0.A1DC3FDC@shaw.ca>
Source record: 132453

JJS wrote:
>
> Thinking of using a horizontal loop and was just wondering if anyone has
> used something like two loops together; sort of like a circle within a
> circle...
> Maybe like one of them as a driven element and the other as the reflector or
> director depending on frequency maybe?
> Any thoughts or ideas?
> Also any thoughts on phasing two loops?
> Horizontal loops that is...
>
> --
> JJ Smith,
> K5RPD
> www.k5rpd.com

Kind of like laying a Quad on its side?
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

1315. How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 16:02:12 UTC
From: cprstn54zz@att.net
Message-ID: <3db965ac.58172437@news-server.optonline.net>
Source record: 132455

I am building a QRP HF amp that will put out 40 watts when driven with 2 watts. Its output power (and power consumption) varies linearly with driver power. Two watts is the max input. It sucks 9 amps at 40 watts. When I am in the woods, I want 10 watts out with 2.5 amp suckage-- to be used when no one hears me on 2-3 watts barefoot.

I have a Ten-Tec 1340 40M CW QRP transceiver. It puts out 3 watts. Gain is not adjustable, except that a resistor can be replaced (with soldering) to make a permanent change in output power. Lowering supply voltage lowers output power a bit, but below 9V, the VFO is unreliable.

I would like to drive the amp with the 1340. My first problem is to get the 1340's power down to 2 watts, so I don't fry the amp. The second problem is to make the power into the amp adjustable down to 0.5 watts so the amp will put out 10 watts and not exhaust my battery pack.

Can I put anything beween the radio and the amp to burn off some wattage? It happens in my feedline when I don't want it to. Will resistors on both legs of the line work? A resistor across the two legs?

Obviously, this will waste some power but it is at most 20% of the combined total and can be tolerated from time to time when I need higher power.

What about a second antenna with its feedline tapped in? Then nothing would be wasted.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1316. Re: antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 16:12:36 UTC
From: richardharrison@webtv.net
Message-ID: <15703-3DB96D74-314@storefull-2311.public.lawson.webtv.net>
Source record: 132458

Reg, G4FGQ wrote:
"What is never mentioned in this context (less noise in balanced antennas) is that horizontal antennas also pick up less signal at low angles, the best of the DX.

Especially true at the low dipole heights many amateurs use. Put that dipole or other horizontal antenna at 1/2-wavelength above the earth, or even more elevation if the ground is extremely good, and low elevation angles ae achievable.

When noise and signal are reduced together, the signal to noise ratio can be unchanged when the receiver internal noise doesn`t figure in.

Best regards, Richard Harrison, KB5WZI

1317. Re: Loop in attic - radiation pattern?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 16:15:41 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB96E2D.B67176A1@cwis.net>
Source record: 132454

Dick,
The lowest angle of radiation depends on the frequency
of use, and the antenna's height above ground, for a
particular frequency, height makes the most difference.
At a height of about 20 feet (average height for a one
story house's attic?), the RF exposure tot he room below
the antenna won't change much no matter what frequency
you use, or what the 'take off' angle is. If you use the
antenna on the HF bands, the RF exposure should be at an
acceptible level. On VHF or UHF, that's a difference
story, depending on power used. This doesn't say anything
about how well the antenna will work for you.
'Doc

1318. Re: antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 16:26:31 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB970B7.84D9AA1E@cwis.net>
Source record: 132456

John,
Without getting into specialized and directional
antennas, what you're using now will probably work
as well as any other antenna.
'Doc

1319. Re: Designing a small antenna for a small keychain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 16:36:16 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB97300.4C195E5A@cwis.net>
Source record: 132457

Michael,
A 1/4 wave antenna at about 315 Mhz is close
to 3/4" in length. A 1/2 wave about 1.5" long.
If the frequency of use is higher than 315 Mhz
the antenna would be even shorter. Depending on
how large the transmitter's case, either should
work okay for you. As for the receiver's antenna,
I would think that the length should be about the
same. Height will make more difference than it's
length will. I wouldn't expect much range, no matter
what antenna you used...
'Doc
PS - Where did you find the rcvr/xmtr chips?

1320. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 16:38:56 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <apbs2u0d0g@enews4.newsguy.com>
Source record: 132459

if you can permanently change the output power by changing a resistor why
not replace the fixed resistor with a variable one?

if you don't want to modify the rig then check out circuits for attenuators,
for low power and something that probably isn't real critical about
impedance a simple resistor circuit should do it.

"Ken" <cprstn54zz@att.net> wrote in message
news:3db965ac.58172437@news-server.optonline.net...
> I am building a QRP HF amp that will put out 40 watts when driven with
> 2 watts. Its output power (and power consumption) varies linearly
> with driver power. Two watts is the max input. It sucks 9 amps at 40
> watts. When I am in the woods, I want 10 watts out with 2.5 amp
> suckage-- to be used when no one hears me on 2-3 watts barefoot.
>
> I have a Ten-Tec 1340 40M CW QRP transceiver. It puts out 3 watts.
> Gain is not adjustable, except that a resistor can be replaced (with
> soldering) to make a permanent change in output power. Lowering
> supply voltage lowers output power a bit, but below 9V, the VFO is
> unreliable.
>
> I would like to drive the amp with the 1340. My first problem is to
> get the 1340's power down to 2 watts, so I don't fry the amp. The
> second problem is to make the power into the amp adjustable down to
> 0.5 watts so the amp will put out 10 watts and not exhaust my battery
> pack.
>
> Can I put anything beween the radio and the amp to burn off some
> wattage? It happens in my feedline when I don't want it to. Will
> resistors on both legs of the line work? A resistor across the two
> legs?
>
> Obviously, this will waste some power but it is at most 20% of the
> combined total and can be tolerated from time to time when I need
> higher power.
>
> What about a second antenna with its feedline tapped in? Then nothing
> would be wasted.
>
> Ken KC2JDY
>
> Ken
> (to reply via email
> remove "zz" from address)

1321. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 17:31:33 UTC
From: tdonaly@aol.com
Message-ID: <20021025133133.06484.00000377@mb-ch.aol.com>
Source record: 132460

Rick wrote,
>
>Once again, any nugget of legitimacy to be gleaned from Chip's scientific
>work
>washes downstream beneath a crashing wave of narcissistic pseudo-rhetorical
>babble. It all seems so unnecessary and self-defeating.
>
>Rick K1BQT
>

Hi Rick,
actually, it's worth it if he can get you to write sentences like
the two
above.

Tom Donaly, KA6RUH

1322. Re: Tower base bolt corrosion prevention ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 17:57:58 UTC
From: Sylvan Butler <Znospam+noZs_0210@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrnarj1h6.pmp.Znospam+noZs_0210@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 132465

On Sat, 19 Oct 2002 22:05:04 -0500, Crazy George <munschNO@attglobal.net.SPAM> wrote:
> the surface. Then, go look at the way commercial self-supporting poles are
> mounted to their bases. They leave an air space under the plate by mounting
> the tower between nuts, rather than hard against the cement. This allows

Yup. Good plan.

> inspection and preventative maintenance, since nothing will be a permanent

Or not. After the twoers are mounted and vertical, they fill the
gap with morter to seal the gap. I'm sure the morter could be
chipped out and replaced if need be, but it is a very generous layer
stuffed under the tower.

The power company put up some nice new steel towers around here,
using the "two nuts holding the base above the concrete" approach.
One tower in particular, a corner, has a concrete base about 6ft in
diameter. The concrete ends a few inches above ground level. The
tower base (an octagon?) has several bolts on each side. It seems,
IIRC, that four sides (eg N, S, E and W) have five bolts each, while
the sides in between those have only three bolts each. The base of
the tower was kept about 2" above the concrete and (from a vehicle
waiting at the corner) the bolts protrude 1" or so above the nut on
top of the tower base. Pretty impressive construction. The other
towers were somewhat smaller but nearly as impressive.

Within one month after the towers were apparently finished, a crew
came by and mortered in the gaps between the tower bases and the
tops of the concrete. Maybe this stops so many critters from
crawling under the tower and up into the hollow interior?

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. >>>> change ^ to @ <<<< |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Stop Senator Fritz Hollings-S2048, Palladium, and TCPA, NOW!
http://www.freedom-to-tinker.com/archives/cat_fritzs_hit_list.html
Or else like Fritz, fight piracy -- regulate potty chairs!

1323. Passive re-radiate UHF signal?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 18:02:12 UTC
From: Charles McDevitt <Chuck_McDevitt@m-s-n.com>
Message-ID: <ugyM2BFfCHA.1648@cpimsnntpa03>
Source record: 132462

I have a large hill directly between me and a UHF transmitter that I want to receive.
The hill is dead-center in line with the transmitter, and close to where I live,
but tall enough my antenna can't "see" over it.

So, I was thinking, and wondering if this would work:

If I take 2 UHF antennas up on the hill, and point one to the UHF transmitter,
and the other to my house, and then wire the two together, will this do anything useful?

It seems like this would passively re-radiate the UHF signal, and allow me to
see over the hill, but I don't know enough to tell if this can work.

Anyone here know the answer?

Chuck

1324. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 18:02:50 UTC
From: cprstn54zz@att.net
Message-ID: <3db98697.1999406@news-server.optonline.net>
Source record: 132461

On Fri, 25 Oct 2002 16:38:56 -0000, "David Robbins" <k1ttt@arrl.net>
wrote:
>if you can permanently change the output power by changing a resistor why
>not replace the fixed resistor with a variable one?

Minds of persons who don't manufacture kits think alike. I had the
same thought. This is what Ten-Tec said, verbatim:

"this is in the emitter of the driver don't like pots there for rf. "

The same response was given for a pot relocated to a different part of
the box.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1325. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 18:06:20 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <fUSdnXoD2vp0GiSgXTWcqw@comcast.com>
Source record: 132463

Ken,

Since you are building the amp, why not build an attenuator in to it. My guess is that a 22 ohm 1W series resistor, and a 100 ohm 1W shunt resistor (on the amp side) is about right. The 22 ohm resistor would go in place of the wire that connects the input jack to the amp board; the 100 ohm resistor would go from the board end of the 22 ohm resistor to ground. Accurate calculations would be pretty moot, because there is no assurance that the amp has a 50 ohm input impedance. While testing the amp, I would temporarily put a third, less than 100 ohm, resistor across the 100 ohms to keep the power down. Also, for initial tests, keep the key down time to a couple of seconds (nothing to do with the attenuator). If you can't find 1W resistors, use two 1/2 W resistors of twice the value (47 and 220) in parallel.

Tam/WB2TT

"Ken" <cprstn54zz@att.net> wrote in message
news:3db965ac.58172437@news-server.optonline.net...
> I am building a QRP HF amp that will put out 40 watts when driven with
> 2 watts. Its output power (and power consumption) varies linearly
> with driver power. Two watts is the max input. It sucks 9 amps at 40
> watts. When I am in the woods, I want 10 watts out with 2.5 amp
> suckage-- to be used when no one hears me on 2-3 watts barefoot.
>
> I have a Ten-Tec 1340 40M CW QRP transceiver. It puts out 3 watts.
> Gain is not adjustable, except that a resistor can be replaced (with
> soldering) to make a permanent change in output power. Lowering
> supply voltage lowers output power a bit, but below 9V, the VFO is
> unreliable.
>
> I would like to drive the amp with the 1340. My first problem is to
> get the 1340's power down to 2 watts, so I don't fry the amp. The
> second problem is to make the power into the amp adjustable down to
> 0.5 watts so the amp will put out 10 watts and not exhaust my battery
> pack.
>
> Can I put anything beween the radio and the amp to burn off some
> wattage? It happens in my feedline when I don't want it to. Will
> resistors on both legs of the line work? A resistor across the two
> legs?
>
> Obviously, this will waste some power but it is at most 20% of the
> combined total and can be tolerated from time to time when I need
> higher power.
>

> What about a second antenna with its feedline tapped in? Then nothing
> would be wasted.
>
> Ken KC2JDY
>
> Ken
> (to reply via email
> remove "zz" from address)

1326. Re: Anybody here use the Force 12 Sigma V? Opinions?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 18:14:08 UTC
From: nat.gurumoorthy@ubicom.com
Message-ID: <41325e56.0210251014.6b8d691c@posting.google.com>
Source record: 132464

oktx <you@somehost.somedomain> wrote in message
news:<8A46F756C94F8127.5768ED6D4DAD2976.C639802C42A74919@lp.airnews.net>...
> What has been your experience with these? From what I've read on the
> eham.net site they look pretty good. This months QST magazine had a
> write up on 'em too. It was positive. I'm in a residential area so my
> choices are rather limited. This one looks to fit the bill. Looks easy
> too. http://force12inc.com/sigma5info-003.htm
>
> Is this a good choice for a newby's first antenna?
This is a great antenna for a newbie to build and to model using NEC.
I did that 2weeks ago to get some antenna up for this weekends CQ WW
DX SSB contest. Here are the construction details.
2 6' 3/4" 0.125 thickness Al tubes
2 6' 5/8" 0.125 thickness Al tubes
15' Fiberglass Wind surfing pole
2 2" Stainless Steel Hose clamps
3 3" Stainless Steel Hose clamps
2 5" Stainless Steel Hose clamps.
2 1"x5" Strips of 1/8" thickness Al
1' 1" Sched 40 PVC pipe
8 2" #8 Stainless Steel Machine Screws + washers + nuts
4 2" #8 brass Machine Screws + washers + nuts
Silicone Caulking
450 ohm Ladder line
Tuner

Building procedure:
The holes you will be drilling should be big enough for #8 Machine
screw.
1. Take the 5/8" Tubes and Drill Holes at 36" and 39" from one of the
ends.
Sand the areas around the 36" Hole.

2. Take the 3/4" Tubes and Drill Holes at 2" and 5" from one and a
0.5" from the other end. Sand areas around the 2" and 0.5" sets of
holes.

3. Take the PVC pipe and Drill holes at 5" and 7" from one end. Widen
the hole on one of the sides of the PVC pipe so that the head of the
brass screw will completely go through the hole. Make sure you do not
widen the hole on the other side.

4. Take the 2 metal strips and drill 2 holes 4.25" inches apart along
the centerline of the strip.

5. Take a hacksaw and cut a few 1.4" slits on both ends of the PVC pipe.

Assembly.
1. Take the 3/4" tube and push the end with the hole at the 0.5" into the PVC tube. When the hole shows up on the first 5" hole put a brass screw through the side with the big hole. The head of your brass screw will be directly contacting the Al tubing. Put a washer and a nut and tighten it down. Repeat the proceedure for the other side. Now Slide the 2 2" hose clamps over the PVC pipes. Align the clamp to one end over the slits and tighten using a nut driver. The PCV will compress and grip the AL tubing. Repeate proceedure with the other clamp.

2 Now take the 5/8" Al tubing. Line up the hole at 36" with the hole at 2" on the 3/4" tube and put a brass screw though. Tighten. Put stainless steel screws through the hole at 5" on the 3/4" tube and the hole at 39" on the 5/8". Put the metal strip in and tighten. You should have a T which not going to wiggle or droop. Repeat process at the other end.

3. Take the ladder line and hook the 2 ends to the Brass screws in the PVC pipe.

4. Apply caulk liberaly at all the points that have brass screws.

5. Overlap 3' of the bottom end of the antenna with the Fiberglass pole. Spread out the 3 3" hose clamps in the 3' overlap zone and tighten.

6. You are almost there. Lift the whole asembly and tie the fiberglass pole to a vertical support using the 5" hose clamps.

7. Run into the shack and tune it to the band of interest. 20 15 and 10 work real well.

The first contact for me with this antenna was RZ4FA on 14.225 and he gives me a 5/6 Followed by AA3b on 21.387. The next day was LW9DHR on 28.344. NEC tells me that the radiation resistance on 20 is about 15 ohms, on 15Mtrs it is about 35, on 10 it is about 60.

I used the Al from a Full size 20M beam I used to have. The Fiberglass pole was picked up for free during the Dumpster Day in our community. Hose clamps and screws etc were from Home Depot.

Build and have fun. See you on the Air.
Regards
Nat Gurumoorthy AB6SJ

> How is the performance compared to similar products?
>
> Where do you have it mounted? On the ground sitting in a bucket like
> they suggest? On a pole? On the roof? On a pole by the fence?
>
> Has anyone mounted one horizontal? If so how did you do it?
>

> Any and all comments are appreciated.

1327. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 18:18:30 UTC
From: cprstn54zz@att.net
Message-ID: <3db98863.2460734@news-server.optonline.net>
Source record: 132467

On Fri, 25 Oct 2002 14:06:20 -0400, "Tarmo Tammaru"
<t-tammaru@home.com> wrote:
>Since you are building the amp, why not build an attenuator in to it.

This may indeed be feasible but since all I do is mindlessly snip,
bend and solder I don't know that it won't mess up something else. I
will ask on the BBS for the amp project.

Is there a reason I can't move the attenuator circuit you mention
outboard to an adapter between the radio and amp? Isn't the coax
sheathing of the cable grounded?

BTW, what attentuation factor would the changes you suggest provide?
Is it from 3 watts down to 0.5 watts?

And could pots be used instead of resistors to make the attenuation
variable?

Also, I would need to be able to switch the attenuation in and out.
When I am near my vehicle or in a motel room, I will have the 9 amps I
need for 40 watts.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1328. Re: Designing a small antenna for a small keychain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 18:33:19 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urj3jf2fr91q94@corp.supernews.com>
Source record: 132466

Huh? A half wave antenna at 315 MHz is about 1.5 feet, not inches.

I believe that small loops are most commonly used as antennas for small transmitters intended to be held in the hand or worn on or near the body.

Roy Lewallen, W7EL

'Doc wrote:
>
> Michael,
> A 1/4 wave antenna at about 315 Mhz is close
> to 3/4" in length. A 1/2 wave about 1.5" long.
> If the frequency of use is higher than 315 Mhz
> the antenna would be even shorter. Depending on
> how large the transmitter's case, either should
> work okay for you. As for the receiver's antenna,
> I would think that the length should be about the
> same. Height will make more difference than it's
> length will. I wouldn't expect much range, no matter
> what antenna you used...
> 'Doc
> PS - Where did you find the rcvr/xmtr chips?

1329. Re: Passive re-radiate UHF signal?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 18:58:06 UTC
From: Bibby <bibby@attbi.com>
Message-ID: <2vgu9.105695$La5.330729@rwcrnsc52.ops.asp.att.net>
Source record: 132468

I have used such a technique in industrial applications - and yes it works.
We call them passive repeaters.

Why don't you try a vertical half-wave up on top of the hill first>

Malcolm

"Charles McDevitt" <Chuck_McDevitt@m-s-n.com> wrote in message
news:ugyM2BFfCHA.1648@cpimsnntpa03...
> I have a large hill directly between me and a UHF transmitter that I want
to
> receive.
> The hill is dead-center in line with the transmitter, and close to where I
> live,
> but tall enough my antenna can't "see" over it.
>
> So, I was thinking, and wondering if this would work:
>
> If I take 2 UHF antennas up on the hill, and point one to the UHF
> transmitter,
> and the other to my house, and then wire the two together, will this do
> anything useful?
>
> It seems like this would passively re-radiate the UHF signal, and allow me
> to
> see over the hill, but I don't know enough to tell if this can work.
>
> Anyone here know the answer?
>
> Chuck
>
>

1330. Re: Designing a small antenna for a small keychain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 19:15:26 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DB9984E.E917A401@cwis.net>
Source record: 132469

Good grief. I think my calculator slipped a cog...
'Doc

1331. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 19:43:07 UTC
From: jder8745@aol.com
Message-ID: <20021025154307.17653.00000014@mb-fd.aol.com>
Source record: 132470

Howdy.

You may NOT need an "antenna tuner".

If your antenna has an impedance of 50 + j0 Ohms, and if your t-line has a characteristic impedance of 50 Ohms, and if your transmitter expects to see a 50-Ohm impedance (50 + j0), then you will not need an antenna tuner.

I have such an antenna and I do not use an "antenna tuner".

73 de Jack, K9CUN

1332. Re: Passive re-radiate UHF signal?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 19:52:24 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <ZyUZHDA4Dau9Ew8d@g3ohx.demon.co.uk>
Source record: 132473

In article <ugyM2BFfCHA.1648@cpimsnntpa03>, Charles McDevitt
<Chuck_McDevitt@m-s-n.com> writes
>I have a large hill directly between me and a UHF transmitter that I want to
>receive.
>The hill is dead-center in line with the transmitter, and close to where I
>live,
>but tall enough my antenna can't "see" over it.
>
>So, I was thinking, and wondering if this would work:
>
>If I take 2 UHF antennas up on the hill, and point one to the UHF
>transmitter,
>and the other to my house, and then wire the two together, will this do
>anything useful?
>
>It seems like this would passively re-radiate the UHF signal, and allow me
>to
>see over the hill, but I don't know enough to tell if this can work.
>
>Anyone here know the answer?
>
>Chuck
>
>
This is said to work. I'm sure that I have seen an article in a cable TV
technical journal (about 20 years ago).
There may be a bit of a snag. If your redirected signal is only about
the same strength as the direct signal, and the two arrive at your
receiving antenna in antiphase, and the effect may be that the resulting
signals is even weaker than when you started. But I reckon it's worth a
try.
Ian.

1333. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 20:41:17 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <7iajruk32t9e9ikq05vvoejlpsrh1mlh05@4ax.com>
Source record: 132471

On Fri, 25 Oct 2002 18:02:50 GMT, cprstn54zz@att.net (Ken) wrote:

|On Fri, 25 Oct 2002 16:38:56 -0000, "David Robbins" <k1ttt@arrl.net>
|wrote:
|>if you can permanently change the output power by changing a resistor why
|>not replace the fixed resistor with a variable one?
|
|Minds of persons who don't manufacture kits think alike. I had the
|same thought. This is what Ten-Tec said, verbatim:
|
|"this is in the emitter of the driver don't like pots there for rf. "

If there is no capacitor bypassing the resistor then what they say is
true. The unbypassed resistor is introducing degeneration and
lowering the gain (and distortion). As such, it is an rf component
and needs to have predictable rf characteristics; something that the
pot does not.

On the other hand, if there is a bypass capacitor then the resistor is
affecting only the dc operating point and a pot should be just fine,
as long as it is within the same range as the fixed resistors
permitted.
|
|The same response was given for a pot relocated to a different part of
|the box.

Same answer.

1334. newbie question coax amplifier

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 21:47:50 UTC
From: mpgk <mopedgeek@REMOVEnf.sympatico.ca>
Message-ID: <3DB9BC48.485F2AA6@REMOVEnf.sympatico.ca>
Source record: 132472

I'm trying to get a decent setup to receive from APT pictures from
weather satillites on 136mhz on my scanner. Do you know if these VHF
amplifiers made for tv's will boost the signal for receive on rf?

http://www.radioshack.ca/estore/Product.aspx?language=en-CA&product=1501118&category=Amps%
2c+Splitters%2c+Wall+Plates&catalog=RadioShack

136mhz sits right in the middle of the range that this is supposed to
boost. Do you know of anyone that has tried these things for radio
instead of tv?
TV Channels:
AIR 2 55.25 VHF-LO
AIR 3 61.25 VHF-LO
AIR 4 67.25 VHF-LO
AIR 5 77.25 VHF-LO
AIR 6 83.25 VHF-LO

AIR 7 175.25 VHF-HI
AIR 8 181.25 VHF-HI
AIR 9 187.25 VHF-HI
AIR 10 193.25 VHF-HI
AIR 11 199.25 VHF-HI
AIR 12 205.25 VHF-HI
AIR 13 211.25 VHF-HI

Anything like this that I can find for radio is used for transmitting as
well and cost 10 times more. I just need something that will boost the
audio signal so I can get a clearer picture from WXSat.

1335. Re: antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 21:50:14 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB9BC96.A5DEC194@ieee.org>
Source record: 132474

Reg Edwards wrote:
> What is never mentioned in this context is that horizontal antennas also
> pick up less signal coming in at low angles, the best of the DX. One must
> be careful not to throw the baby away with the bathwater.

Reg, I actually prefer a warm bath to babysitting. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1336. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 21:56:52 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DB9BE24.C9F77C3B@ieee.org>
Source record: 132475

JDer8745 wrote:
> If your antenna has an impedance of 50 + j0 Ohms, and if your t-line has a
> characteristic impedance of 50 Ohms, and if your transmitter expects to see a
> 50-Ohm impedance (50 + j0), then you will not need an antenna tuner.
>
> I have such an antenna and I do not use an "antenna tuner".

Actually, if the transmitter expects to see a 50 ohm impedance and sees
anything between 25+j0 and 100+j0, you will usually not need an antenna
tuner. My antenna impedance is almost anything within reason, and my
Z0 is about 400 ohms. Chances are, if you feed your ladder-line fed antenna
at a current maximum point, your transmitter won't complain.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1337. Re: Designing a small antenna for a small keychain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 22:19:36 UTC
From: fractenna@aol.com
Message-ID: <20021025181936.18222.00000396@mb-cv.aol.com>
Source record: 132476

I have had success with a set of designs which does pretty well to optimize the link: read distances of far greater than 100 feet have been attained at this 315 MHz band.

What I can pass along to you is that you must make up for inadequacies in the tag by the reader--and making that smallish and acceptable in form factor is a real challenge. Spent a lot of time on it. Both antennas are fractal.

Perhaps there are other ways to approach the problem; just wanted to let you know its been done successfully to shrink these down to practical sizes.

On the other hand, the read/tag system for gasoline stations was never intended to be a particularly robust system. So I suspect your 'keychain' system is never meant to be read more than 10-13 feet away. In that case, very poor tags work with very good readers. Those readers need not be the somewhat doltish magnetic loops, that are big, directional, and don't do well with metal in the near field of mounting.

Hope this helps.

73,
Chip N1IR

1338. Re: Collins Radio Antenna Compendium

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 22:19:56 UTC
From: "j. keith carter" <j.keith.carter@sympatico.ca>
Message-ID: <3DB9C38C.7B54D977@sympatico.ca>
Source record: 132478

Hi Harold, As you said, way back when, Art Collins designed an antenna which today looks like the G5RV. It apparently was a multilobed pattern antenna and held a Collins patent. If you get responses to your query offering multi copies, I would be also interested. Keith, VE3JKC

"Harold E. Johnson" wrote:

> Long ago, long before the League used the term, Collins had a small spiral
> bound book with a blue cover and it was named the Antenna Compendium. I had
> a copy, but donated it to a local Ham library which has since become
> non-local.
>
> The book contained a section on electrically short verticals and showed a
> nomograph regarding radials. To my recollection, it indicated that for a
> given length of wire, you were better off with a few long radials than many
> short ones. I can't find that replicated in any form in Jasik, would someone
> out there by any chance have a copy of the Collins book and could refresh my
> decaying memory? I'd be happy to reimburse any costs to duplicate those 2-3
> pages or a .PDF would be super.
>
> W4ZCB

1339. Re: newbie question coax amplifier

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 22:22:37 UTC
From: Bill M <exray@no>
Message-ID: <urjgte7g016t48@corp.supernews.com>
Source record: 132477

mpgk wrote:
>
> I'm trying to get a decent setup to receive from APT pictures from
> weather satillites on 136mhz on my scanner. Do you know if these VHF
> amplifiers made for tv's will boost the signal for receive on rf?
>
> http://www.radioshack.ca/estore/Product.aspx?language=en-CA&product=1501118&category=Amps%2c+Splitters%2c+Wall+Plates&catalog=RadioShack

Yes, it will amplify 136 MHz. But its debateable if it would help in your case. The noise figure of the amp needs to be better than the noise figure of the front end of your receiver or it will actually worsen the reception...in this case it would be hard to guess which has the better front end. Plus, since its a broadband amp you could be bothered with intermod from strong local FM and TV stations.

The first area for improvement generally would be the antenna and coax. After you're convinced that you've done your best there, an antenna preamp mounted AT the antenna would be the most helpful. Antenna preamps, even Radio Shack ones, generally have a decent noise figure - much better than the little distribution amp shown. And by having the preamp at the antenna, your feedline *generally* won't be a contributing factor in worsening the signal-to-noise ratio.

-Bill M

1340. Re: Figures of Meri t(FOM) and Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 22:33:47 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <9sfjru49lrgoirqkm1j9bidrmt3bp240ss@4ax.com>
Source record: 132479

On Fri, 25 Oct 2002 00:33:38 -0700, "Fred Marshall"
<fmarshall@acm.org> wrote:

>In the context that I was trying to establish, "real" FOMs are of a very
>objective type and one may find them quite useful. For example, antenna
>gain to noise temperature ratio G/T is often used as an antenna or receiver
>figure of merit. Nothing subjective about that. For Yagis we often see the
>front-to-back ratio alluded to as a type of figure of merit for directional
>arrays. Also, not at all subjective.
>

Hi Fred.

To the comment above, I would offer that, yes, you do comply
literally with the distinctions you are wishing to make; however, in
the day to day life they are often merged.

One example drawn from the quote above is that there are a myriad
characteristics that could be drafted to formulate an FOM. For Yagis
you mention front-to-back ratio and make a distinction of its choice
as an allusion ("alluded to as..."). THIS is the subjectivity of FOM
because you allowed the caprice of other's subjective attitudes to
force a selection.

FOM is a subjective declaration of what is important to the formulator
of the list (one must necessarily shorten the myriad to a manageable
few). Editing such a list can be extremely subjective through its
covert form of bias in selection. Cost is openly subjective, but Cost
is a far more impartial arbiter of outcome because the biases are no
longer veiled. An FOM from my current customer would never get
designed - too many design issues at cross purposes. However, a risk
analysis will force them to pay for what they want - and they will get
what the pay for. Risk analysis gets things done or abandons the
cost. FOM is an intellectual wet-dream.

73's
Richard Clark, KB7QHC

1341. FS 900 Mhz Duplexer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 22:40:49 UTC
From: Mike Kulyk <mkulyk@optonline.net>
Message-ID: <RLju9.10943$D63.5310@news4.srv.hcvlny.cv.net>
Source record: 132480

900 MHz 8 Cavity Duplexer
Compact Duplexer with Circulator

This Duplexer came from an older 900 MHz linking radio system. It is presently tuned for 895.90 MHz TX and 934.70 RX, making it very suitable for the 900 MHz Ham band. It came out of service, so should be working fine, but it comes AS-IS.

jpeg by e-mail

$150 plus shipping

1342. SWR Meters.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 23:01:23 UTC
From: Dean Elwood <dean@legallyspeaking.co.uk>
Message-ID: <apcig3bnh1@sparta.btinternet.com>
Source record: 132481

Quick question - do I really need one on my 2m/70cms dual bander or can I do without?

Many thanks,

Dean
M3DPE

1343. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-25 23:16:26 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <1cjjru0v99mvh6ofv1fhridcap0lee64uv@4ax.com>
Source record: 132482

On 25 Oct 2002 03:20:13 GMT, fractenna@aol.com (Fractenna) wrote:

>You have
>I expect
>you will
>I did
>My conscience
>I will
>I will
>I will
>I
>will
>
>I trust
>myself
>I have
>I will
>I thought
>interested me:
>you've been
>gives you

Rather poor showing on the eh/cfa/fractal self-referential index
:-(

Reads more like a teen-romance novelette outline (and the original
actually delivers on the promise). ;-)

GO would probably be put to better return writing erotica for
fanzines. How many megaflops did it take to churn out the original?

73's
Richard Clark, KB7QHC

1344. Re: SWR Meters.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 00:01:15 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <DrecnS7cn4iYdiSgXTWcoQ@ctc.net>
Source record: 132485

All antennas should be checked when installed for SWR. After that you don't need one. You should check the swr every once and awhile just to be sure something has not changed such as the wind breaking off the top of the antenna or the coax comming loose. Good thing about vhf and above is that if you use coax that has about 3 db of loss or more the swr will be seen as under 3:1 in most cases. Most coax falls in this class for 100 feet or more.

I have to admitt that I have several swr meters (actually directional wattmeters) and I almost never check the swr of the antennas I have above 6 meters afiter I install them.

"Dean Elwood" <dean@legallyspeaking.co.uk> wrote in message news:apcig3bnh1@sparta.btinternet.com...
> Quick question - do I really need one on my 2m/70cms dual bander or can I do
> without?
>
> Many thanks,
>
> Dean
> M3DPE
>
>
>

1345. Re: Antenna Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 00:31:56 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <0olu9.5285$VJ5.291653@bgtnsc05-news.ops.worldnet.att.net>
Source record: 132483

"Fractenna" <fractenna@aol.com> wrote in message
news:20021024232013.27890.00000151@mb-mf.aol.com...
> >

Hi Chip,

I was going to respond in some detail but this would turn into another endless loop. From the early comments in your post, its obvious that if you can't arrive at an optimized design you'll simply blame the FOM. You've tried to set that scenario up nicely.

As for the rest of your "truth in science" comments, I've stated my opinions on fractal antennas quite publicly at the 2001 and 2002 AP Symposium and the 2001 and 2002 Allerton Conference. There were also three recent articles in the IEEE AWPL. Keep your eyes on the next few issues of the Microwave and Optical Technology Letters, the next issue of the IEEE AWPL and upcoming issues of the Transactions and AP Magazine. You'll find the next 6 - 8 months very interesting.

I look forward to your optimized design next month.

Steve VE9SRB

1346. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 00:43:00 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <zZGdncMt_Y95eSSgXTWcpA@comcast.com>
Source record: 132484

Ken,

The values I gave would knock the 3W down to 1W, provided the amp input is 50 ohms. If you want more power, make the 100 ohms bigger. You could build this in the small Radio Shack metal box. They are about 2 inches on a side. Realistically, all you would need to bypass it is to short out the series resistor with a switch. A potentiometer would probably not work, the small "volume control" pots won't take any power, and power pots tend to be expensive and wirewound - ie inductors. I think RS sells resistors in 5 packs. You could use 5 x 470 ohm resistors in parallel for the 100 ohms, and if the ~1W is too low, start clipping out 470 ohm resistors one at a time until you get the power you want. Your amplifier input impedance is liable to be anywhere between 25 and 100 ohms, so you have to experiment.

Tam/WB2TT
"Ken" <cprstn54zz@att.net> wrote in message
news:3db98863.2460734@news-server.optonline.net...
> On Fri, 25 Oct 2002 14:06:20 -0400, "Tarmo Tammaru"
> <t-tammaru@home.com> wrote:
> >Since you are building the amp, why not build an attenuator in to it.
>
> This may indeed be feasible but since all I do is mindlessly snip,
> bend and solder I don't know that it won't mess up something else. I
> will ask on the BBS for the amp project.
>
> Is there a reason I can't move the attenuator circuit you mention
> outboard to an adapter between the radio and amp? Isn't the coax
> sheathing of the cable grounded?
>
> BTW, what attentuation factor would the changes you suggest provide?
> Is it from 3 watts down to 0.5 watts?
>
> And could pots be used instead of resistors to make the attenuation
> variable?
>
> Also, I would need to be able to switch the attenuation in and out.
> When I am near my vehicle or in a motel room, I will have the 9 amps I
> need for 40 watts.
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

1347. Re: Speaking of horizontal loops...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 01:09:36 UTC
From: Walter <walter@accessus.net>
Message-ID: <3C6dnQQOf4aOdiSgXTWcqg@accessus.net>
Source record: 132486

Hi JJ, the small one turn 'magnetic loops' are fed somewhat
that way, but with a much smaller inside driven loop. If you
are putting up a large wire horz. loop, what is the point, it
will not give you any higher gain unless you are going to
stack the loops and from 40 meters down, you are talking
some pretty tall support masts.

If you are looking for more gain using horz. loops, may I
suggest putting at least 2 loops up that are more than 1 WL
apart and fed with 450 ohm ladderline/300 ohm twinlead.
At the design freq. of 40m. and down these are some
terrific NVIS antennas, especially with a counterpoise
laying on the ground. They also make great multiband
antennas, but they are certainly real estate intensive.

With the above in mind, how about telling us what you
want the horiz. loop / loops to do as far as radiation?
And while you are at it, how much real estate do you
have available?

73...Walter, AG5P

"JJS" <jarrodsmith@hotmail.com> wrote in message
news:uriocfeuppc537@corp.supernews.com...
> Thinking of using a horizontal loop and was just wondering if anyone
has
> used something like two loops together; sort of like a circle within
a
> circle...
> Maybe like one of them as a driven element and the other as the
reflector or
> director depending on frequency maybe?
> Any thoughts or ideas?
> Also any thoughts on phasing two loops?
> Horizontal loops that is...
>
> --
> JJ Smith,
> K5RPD
> www.k5rpd.com
>
>

1348. Calculating NEC or EZNEC models with a MININEC engine

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 01:29:42 UTC
From: ac6la@arrl.net
Message-ID: <960228f1.0210251729.20f41d6e@posting.google.com>
Source record: 132487

The latest version of the freeware MultiNEC program has an interface to the "Antenna Model" package by Teri Software (www.antennamodel.com). Antenna Model (A.M.) uses an enhanced and corrected MININEC type engine. As L.B. Cebik pointed out in a recent article, there are certain types of models that cannot be processed accurately by NEC-2 or, to a lesser extent, NEC-4. See "When MININEC is Superior to NEC" at www.cebik.com/amod/amod56.html. And even for models that don't fit this criteria, A.M. offers some pretty impressive graphics capabilities. See, for example, www.qsl.net/ac6la/adhoc/am3d.gif (18 KB).

Being MININEC-based A.M. of course does not support Sommerfeld type ground or "NEC type" (ideal) transmission lines. Except for those restrictions, models in any format that is recognized by MultiNEC (EZNEC, NEC, MMANA, ELNEC, AO, Nec/Wires, A.M., or the Excel-based MultiNEC format itself) may be calculated using any engine that is supported by MultiNEC (EZNEC Standard; EZNEC-M Pro; EZNEC/4 Pro; Nittany NEC-2 [NWPlus and NWPro]; Nittany NEC-4 [GNEC]; public domain NEC-2; or corrected MININEC [A.M.]). You could for example use A.M. to get a "feel" for the 3D radiation pattern but then use EZNEC or NEC to obtain precise impedance and gain figures with the use of Sommerfeld ground, all while building the geometry of the model just once. Or you could use MultiNEC in its more traditional "make multiple runs while automatically changing variables" mode with A.M.

The latest MultiNEC release has several other enhancements, including the ability to read and write 2D radiation plots in OpenPF format. These "plot files" can be exchanged with other programs that use the OpenPF format, including EZNEC and A.M.

For more details on MultiNEC and a free download file see www.qsl.net/ac6la/. MultiNEC requires Excel 97 or later.

73,
Dan AC6LA

1349. Re: newbie question coax amplifier

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 02:09:33 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <vhgjrukq1qirc7dtkc2b7q65o4dtrl7kd8@4ax.com>
Source record: 132488

On Fri, 25 Oct 2002 21:47:50 GMT, mpgk
<mopedgeek@REMOVEnf.sympatico.ca> wrote:

|I'm trying to get a decent setup to receive from APT pictures from
|weather satillites on 136mhz on my scanner. Do you know if these VHF
|amplifiers made for tv's will boost the signal for receive on rf?
|
|http://www.radioshack.ca/estore/Product.aspx?language=en-CA&product=1501118&category=Amps%2c+Splitters%2c+Wall+Plates&catalog=RadioShack

You mostly likely need an amplifier at the antenna rather than one
inside near the radio. Placing the amplifier at the antenna will
overcome the loss in the coax cable and the resulting signal-to-noise
degradation.

So you should be looking for "mast-mounted" amplifiers. Any of them
rated for VHF use will work at 136 MHz. Some of them have an
"FM-trap" that is designed to notch the FM broadcast band and this
might have some effect, so switch it out.

Wes

1350. Gain Coax

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 03:27:05 UTC
From: NCS NECkid <123@456.789>
Message-ID: <urk2scfumr5he8@corp.supernews.com>
Source record: 132489

Anybody want some gain coax?

I sell it by the "linear" foot!

1351. Cushcraft R5 toroid info?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 04:07:26 UTC
From: derswede@aol.comspam.com
Message-ID: <20021026000726.07901.00000554@mb-fl.aol.com>
Source record: 132490

Got an R5 with broken toroids in the matching section...anyone (other than Cushcraft, natch) have any replacements for these? (specs will do if anyone happens to have info on the parts). I'm going to rebuild it for the cabin, seems to be a decent little vertical except for the dead toroids. Seems that Cushcraft wants to sell only the entire box....I'd rather fix just what's wrong with it.

Tnx in advance;
A

1352. Re: Yaesu ATAS-100 Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 04:13:30 UTC
From: Jack Leishman <k8xx@gtii.com>
Message-ID: <urk5iidamujqa9@corp.supernews.com>
Source record: 132491

It covers all of the technical details except the bottom 3 inches....nowhere
does it show in the schematic or in pictorials the base section containing
the RF, DC pass transformer. It was of no value in determining the
problem I had however. jack k8xx
--
Jack Leishman
Spectrum Radio Service
1551 Hammond Rd. East
Traverse City, MI 49686
231-947-9062
Ebay ID: radiotradio
k8xx@gtii.com or leishman@michcom.com
home page: http://www.traverse.net/members/k8xx

1353. Re: Another Fractenna Turkey

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 05:28:03 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <c6akru850s3pq3457jef927rtv5d939jg8@4ax.com>
Source record: 132492

On 25 Oct 2002 03:20:13 GMT, fractenna@aol.com (Fractenna) wrote:

>
>I will run the analysis in early/mid November and a full analyses will be
>publicly disseminated on www.n1ir.com sometime after Thanskgiving.

What year?

1354. Re: Another Fractenna Nonsequiter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 05:35:49 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <ncakruocokvdr4jlusrfr7tup9louc860s@4ax.com>
Source record: 132493

On 25 Oct 2002 03:20:13 GMT, fractenna@aol.com (Fractenna) wrote:
>
>BTW, did you see Dr. Rahmat-Samii's press release? I thought it would interest
>you. It interested me:
>
>http://www.sciencedaily.com/releases/2002/10/021022070904.htm
>
>While you've been busy as a bee trying to debunk fractal antennas, Dr.
>Rahmat-Samii seems to be claiming a curious status with respect to the field.

Has Chip's "legal team" gone after Dr. R-S?

Who is Nathan Cohen?
http://opsyhopsy.com/MiscJunk/who_is_nc.htm

1355. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 07:00:06 UTC
From: cprstn54zz@att.net
Message-ID: <3dba3652.18752078@news-server.optonline.net>
Source record: 132494

On Fri, 25 Oct 2002 20:43:00 -0400, "Tarmo Tammaru"
<t-tammaru@home.com> wrote:
>The values I gave would knock the 3W down to 1W, provided the amp input is
>50 ohms. If you want more power, make the 100 ohms bigger. You could build
>this in the small Radio Shack metal box. They are about 2 inches on a side.
>Realistically, all you would need to bypass it is to short out the series
>resistor with a switch. A potentiometer would probably not work, the small
>"volume control" pots won't take any power, and power pots tend to be
>expensive and wirewound - ie inductors. I think RS sells resistors in 5
>packs. You could use 5 x 470 ohm resistors in parallel for the 100 ohms, and
>if the ~1W is too low, start clipping out 470 ohm resistors one at a time
>until you get the power you want. Your amplifier input impedance is liable
>to be anywhere between 25 and 100 ohms, so you have to experiment.

Hi, Tam.

OK. I made a diagram and dusted off Kirchoff's Law to see what you
were doing. I am getting a different result, so I am missing
something.

In the unmodified circuit and assuming 50 ohms of impedance in the
amp, for 3 watts dissipated, I get 12 volts across and .25 amps
through the amplifier.

Inserting 22 ohms into one leg of the drive and shunting with 100 ohms
to ground, I compute the new voltage drop across the amplifier to be
9.8 volts. This is only a 20% reduction, whereas you say it should be
a 50% reduction.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1356. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 07:43:37 UTC
From: cprstn54zz@att.net
Message-ID: <3dba4637.2024140@news-server.optonline.net>
Source record: 132495

On Sat, 26 Oct 2002 07:00:06 GMT, cprstn54zz@att.net (Ken) wrote:
>Inserting 22 ohms into one leg of the drive and shunting with 100 ohms
>to ground, I compute the new voltage drop across the amplifier to be
>9.8 volts. This is only a 20% reduction, whereas you say it should be
>a 50% reduction.

Ooops. I see one mistake I made. Recomputing, I find around .22 amps
flowing through the 22 ohm resistor and a voltage drop across it of
4.8 volts -- presenting 7.2 volts to the amplifier, for a reduction of
40%. Is this correct?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1357. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 08:05:49 UTC
From: cprstn54zz@att.net
Message-ID: <3dba4ade.3214968@news-server.optonline.net>
Source record: 132496

On Fri, 25 Oct 2002 14:06:20 -0400, "Tarmo Tammaru"
<t-tammaru@home.com> wrote:
>Since you are building the amp, why not build an attenuator in to it. My
>guess is that a 22 ohm 1W series resistor, and a 100 ohm 1W shunt resistor
>(on the amp side) is about right.

I think I have it. If I want an 80% reduction and assuming the amp
has 50 ohm impedance, I compute that the shunt would be 12.5 ohms and
the series resistor would be 40 ohms. Is this in the ball park?

This seems very straightforward. I wonder why Ten-Tec didn't suggest
it?

I think I can use a DPDT switch that would give me two alternate
arrangements: 30% off and 80% off. That would be entirely
satisfactory.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1358. What kind of mobile antenna is this?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 08:48:27 UTC
From: "David D." <daviddiamond@comcast.net>
Message-ID: <apdklv$jvch$1@ID-128035.news.dfncis.de>
Source record: 132497

I encountered a van with an unusual pair of antennas on its roof, and I am curious as to what its use might be.

The van had two identical T-shaped antennas, one at the front of the roof, and one at the rear of the roof.

The antennas were two or three feet tall, with the horizontal element at the top of the T spanning the full width of the van.

The antennas were 1" to 1 1/2" thick. I assume that that is either for rigidity or for high current capacity.

The middle of the vertical element of each antenna is bent into a few turns of open coil.

Any thoughts regarding what it might be?

- David

1359. Re: SWR Meters.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 11:11:09 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <Xne6PWg3vqXu7OPmN0lg5APU8GqZ@4ax.com>
Source record: 132498

"Dean Elwood" <dean@legallyspeaking.co.uk> wrote:

>Quick question - do I really need one on my 2m/70cms dual bander or can I do
>without?
>
>Many thanks,
>
>Dean
>M3DPE
>
>

I needed an swr meter to adjust my dual bander mobil whip when first setting it up. After the length of the antenna was adjusted, the meter was no longer needed. If you rig doesn't have a meter built in, and you don't want to buy one, maybe you can borrow one for the initial setup on your antenna.

Bob
k5qwg

1360. Re: Gain Coax

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 13:45:26 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DBA9C76.7C03A719@cwis.net>
Source record: 132499

NCS NECkid wrote:
>
> Anybody want some gain coax?
>
> I sell it by the "linear" foot!

What colors does it come in?
'Doc

1361. Re: Another Fractenna Nonsequiter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 14:09:47 UTC
From: k1bqt@aol.com
Message-ID: <20021026100947.16974.00000667@mb-cr.aol.com>
Source record: 132500

>Dr.Rahmat-Samii seems to be claiming a curious status with respect to the field.<

Kinda like stealing a car with no motor, isn't it!

Rick K1BQT

1362. Re: Cushcraft R5 toroid info?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 14:13:14 UTC
From: "G. Beat" <gregory.beat.nospam@spam.attbi.com>
Message-ID: <_pxu9.106231$md1.21560@sccrnsc03>
Source record: 132501

EI7BA has what you are looking for

http://www.qsl.net/ei7ba/r7_vertical.htm

w9gb

"AA" <derswede@aol.comspam.com> wrote in message
news:20021026000726.07901.00000554@mb-fl.aol.com...
> Got an R5 with broken toroids in the matching section...anyone (other than
> Cushcraft, natch) have any replacements for these? (specs will do if
anyone
> happens to have info on the parts). I'm going to rebuild it for the
cabin,
> seems to be a decent little vertical except for the dead toroids. Seems
that
> Cushcraft wants to sell only the entire box....I'd rather fix just what's
wrong
> with it.
>
> Tnx in advance;
> A

1363. Re: What kind of mobile antenna is this?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 14:21:55 UTC
From: George Kinzer <horseflygk@worldnet.att.net>
Message-ID: <7yxu9.6781$VJ5.363623@bgtnsc05-news.ops.worldnet.att.net>
Source record: 132502

my guess is it was for a tv, 1" was for high speed travel .lol

--
If first you don't succeed, do the same thing again...see what happens

Those who want to be successful, will find a way,
those that don't, will find an excuse!

1364. Re: Passive re-radiate UHF signal?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 15:07:52 UTC
From: richardharrison@webtv.net
Message-ID: <15703-3DBAAFC8-531@storefull-2311.public.lawson.webtv.net>
Source record: 132504

Chuck McDivitt wrote:
"It seems this would allow to passively re-radiate the UHF signal and allow me to see over the hill, but I don`t know enough to tell if this can work."

You will need high gain antennas.

It works at about 10x the frequency with microwave dishes. A "passive repeater" is sometimes made of back-to-back dishes connected with a short length of waveguide. "Billboards are more popular for their higher efficiency.

Each microwave dish is only about 55% efficient and the waveguide adds more loss.

For UHF, the yagis, rhombics, etc. are less eficient than dishes. Dishes and bilboards are likely out of the question due to size. The only way to determine the viability of back-to-back UHF antennas in the particular situation without path and signal strength information is to give it a try.

Nest regards, Richard Harrison, KB5WZI

1365. Re: Gain Coax

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 15:10:16 UTC
From: Alan Beagley <abeagley@optonline.net>
Message-ID: <3DBAB059.20607@optonline.net>
Source record: 132503

If you throw in a couple of cans of SWR Spray, I'll buy 2 KW worth. How many feet is that?

-=-
Alan

NCS NECkid wrote:
> Anybody want some gain coax?
>
> I sell it by the "linear" foot!

1366. Re: What kind of mobile antenna is this?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 15:24:34 UTC
From: fractenna@aol.com
Message-ID: <20021026112434.27763.00000416@mb-df.aol.com>
Source record: 132505

>
>I encountered a van with an unusual pair of antennas on its roof, and I am
>curious as to what its use might be.
>
>The van had two identical T-shaped antennas, one at the front of the roof,
>and one at the rear of the roof.
>
>The antennas were two or three feet tall, with the horizontal element at the
>top of the T spanning the full width of the van.
>
>The antennas were 1" to 1 1/2" thick. I assume that that is either for
>rigidity or for high current capacity.
>
>The middle of the vertical element of each antenna is bent into a few turns
>of open coil.
>
>Any thoughts regarding what it might be?
>
> - David
>

Probably the Men In Black looking for Orion again.:-)

Well, I can tell you its not a ham antenna.

73,
Chip N1IR

1367. WTB: World Radio Handbooks

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 15:39:16 UTC
From: Dan Henderson <dandan2@comcast.net>
Message-ID: <pZydncUB7sKoKiegXTWc3A@comcast.com>
Source record: 132506
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.boatanchors,rec.radio.amateur.antenna

I am in the market for WRTH summer supplements for the years 1960, 1961,
1962, 1963, 1964, 1968, 1970. Price is almost no object.
Email me at: dandan2@comcast.net.

1368. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 17:08:02 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Uq2cnagg5ugjViegXTWcqw@comcast.com>
Source record: 132507

Ken, I did 100 ohms in parallel with 50 gives (50 x 100)/150 =33 ohms. Now there is a voltage divider of 22 ohms in series with 33, which gives V(new)=V(old)x 33/(33+22))= .6 V(old). But, you square that for power; so, the new power=3W x .6 x .6 = 1.08W. Notice that the transmitter sees 22 ohms in series with 33, or 55 ohms. This is pretty good. Now if the input impedance of the amp is other than 50 ohms, like 100, the numbers will be different. That is why you need to experiment.

Tam/WB2TT
"Ken" <cprstn54zz@att.net> wrote in message
news:3dba4ade.3214968@news-server.optonline.net...
> On Fri, 25 Oct 2002 14:06:20 -0400, "Tarmo Tammaru"
> <t-tammaru@home.com> wrote:
> >Since you are building the amp, why not build an attenuator in to it. My
> >guess is that a 22 ohm 1W series resistor, and a 100 ohm 1W shunt
resistor
> >(on the amp side) is about right.
>
> I think I have it. If I want an 80% reduction and assuming the amp
> has 50 ohm impedance, I compute that the shunt would be 12.5 ohms and
> the series resistor would be 40 ohms. Is this in the ball park?
>
> This seems very straightforward. I wonder why Ten-Tec didn't suggest
> it?
>
> I think I can use a DPDT switch that would give me two alternate
> arrangements: 30% off and 80% off. That would be entirely
> satisfactory.
>
> Ken KC2JDY
>
> Ken
> (to reply via email
> remove "zz" from address)

1369. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 17:14:51 UTC
From: "Dr. William J. Schmidt, II" <bill@wjschmidt.com>
Message-ID: <urljcbc44bvf0c@corp.supernews.com>
Source record: 132508

Well, I live in a neighborhood where no antennas are allowed.... So not to give up my hobby, I devised a vertical for all bands that looks like a flag pole (e.g. has flags at the top). The antenna, itself, is a Shakespeare 222 that I purchased Mil. surplus (came off a navy frigate)... it's 35 feet tall, handles 10kW, has a flanged base for mounting in concrete, a feed point about 2 feet up from the base. I mounted it with a copper plate under it, and put down 240 radials with a radial burying device I built (and now market commercially... see them at Dayton) for my lawn tractor. The antenna is fed with a Mil. antenna tuner (Harris CU-2310)... and the results are simply astounding. I consistently get better signal reports than local guys with "bigger" installations in pileups (we could have a big discussion here about modes of wave travel, but the bottom like is how you do in pileups... no matter what antenna you use). If elevated, 4-8 radials would suffice due to reduced ground losses. I had a dipole up 60 feet, and the vertical beats the pants off it.

Pictures on request! You won't believe it!

--

Sincerely,

Dr. William J. Schmidt, II

"Collector of Edison Wind-up Phonographs... Do you have one for me?"
Email: bill@wjschmidt.com
Alternate Email: wmschmidt@charter.net
WebPage: www.wjschmidt.com

"lc" <larryc@northwest.com> wrote in message
news:3DB459FA.DED68710@northwest.com...
> Experiences using full-size quater wave vertical (with radials) would be
> appreciated. I'm building one for 40M. Base would be evelated about 10'
>
> LArryC, N3CCW, CN85
>
> --
> Welcome to Oregon - "The Food Stamp State"
>
>

1370. Another vertical question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 17:41:39 UTC
From: Bill M <exray@no>
Message-ID: <urlkqbab8rucbe@corp.supernews.com>
Source record: 132509

As a result of reading the posts here I'm finally getting a grip on
ground losses as applied to a vertical antenna installation. I had
always been under the misconception that a nice piece of earth provided
a better ground plane than say 3 or 4 elevated radials.
With that new piece of info in mind, another question comes up.
I live in a house on a small crowded lot. The biggest open space would
be the roof itself. Typical hurricane proof construction, flat concrete
roof with plenty of steel inside.
So how does this rate as far as ground losses? Would I be better off
laying radials directly on the roof or going to an elevated scheme?
Thanks,
Bill WX4A/KP4

1371. Re: What kind of mobile antenna is this?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 18:00:18 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBAD832.99DDC470@ieee.org>
Source record: 132510

"David D." wrote:
>
> I encountered a van with an unusual pair of antennas on its roof, and I am
> curious as to what its use might be.
>
> The van had two identical T-shaped antennas, one at the front of the roof,
> and one at the rear of the roof.
>
> The antennas were two or three feet tall, with the horizontal element at the
> top of the T spanning the full width of the van.
>
> The antennas were 1" to 1 1/2" thick. I assume that that is either for
> rigidity or for high current capacity.
>
> The middle of the vertical element of each antenna is bent into a few turns
> of open coil.
>
> Any thoughts regarding what it might be?

Offhand, it sounds like a vertical phased array with top hats. Might be CB.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1372. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 18:04:18 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBAD922.DC146BD3@ieee.org>
Source record: 132511

"Dr. William J. Schmidt, II" wrote:
> I had a dipole up 60 feet, and the vertical beats
> the pants off it.

How does a vertical monopole manage to obtain an omni-
directional gain of greater than 6 dBi?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1373. Re: Another vertical question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 18:18:26 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBADC72.866FD90B@ieee.org>
Source record: 132514

Bill M wrote:
>
> As a result of reading the posts here I'm finally getting a grip on
> ground losses as applied to a vertical antenna installation. I had
> always been under the misconception that a nice piece of earth provided
> a better ground plane than say 3 or 4 elevated radials.
> With that new piece of info in mind, another question comes up.
> I live in a house on a small crowded lot. The biggest open space would
> be the roof itself. Typical hurricane proof construction, flat concrete
> roof with plenty of steel inside.
> So how does this rate as far as ground losses?

Ground losses appear as a series resistance so a feedpoint impedance
measurement can give you an approximate idea of what is going on.
The feedpoint impedance of a 1/4WL vertical is about 35 ohms over
perfect ground. The feedpoint impedance goes up as ground losses
increase. You can get a *rough* estimate of the ground losses by
measuring the feedpoint impedance. It will (at least should) decrease
as you add radials.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1374. Re: Figures of Meri t(FOM) and Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 18:20:36 UTC
From: Fred Marshall <fmarshall@acm.org>
Message-ID: <apemh5$ca8$1@feed.centurytel.net>
Source record: 132513

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:9sfjru49lrgoirqkm1j9bidrmt3bp240ss@4ax.com...
> On Fri, 25 Oct 2002 00:33:38 -0700, "Fred Marshall"
> <fmarshall@acm.org> wrote:
>
> >In the context that I was trying to establish, "real" FOMs are of a very
> >objective type and one may find them quite useful. For example, antenna
> >gain to noise temperature ratio G/T is often used as an antenna or
receiver
> >figure of merit. Nothing subjective about that. For Yagis we often see
the
> >front-to-back ratio alluded to as a type of figure of merit for
directional
> >arrays. Also, not at all subjective.
> >
>
> Hi Fred.
>
> To the comment above, I would offer that, yes, you do comply
> literally with the distinctions you are wishing to make; however, in
> the day to day life they are often merged.
>
> One example drawn from the quote above is that there are a myriad
> characteristics that could be drafted to formulate an FOM. For Yagis
> you mention front-to-back ratio and make a distinction of its choice
> as an allusion ("alluded to as..."). THIS is the subjectivity of FOM
> because you allowed the caprice of other's subjective attitudes to
> force a selection.
>
> FOM is a subjective declaration of what is important to the formulator
> of the list (one must necessarily shorten the myriad to a manageable
> few). Editing such a list can be extremely subjective through its
> covert form of bias in selection. Cost is openly subjective, but Cost
> is a far more impartial arbiter of outcome because the biases are no
> longer veiled. An FOM from my current customer would never get
> designed - too many design issues at cross purposes. However, a risk
> analysis will force them to pay for what they want - and they will get
> what the pay for. Risk analysis gets things done or abandons the
> cost. FOM is an intellectual wet-dream.

Richard,

We agree in principle. But I surely won't agree that "FOM is an
intellectual wet dream" and hasten to add "if it's being used
appropriately". If the term is misused, that's a different matter. I

suggest using the term "FOM" for objective measures.

I'm afraid we're dealing with some "baggage" regarding what is and what is not an FOM.
I do know that people make up their own. Some of these are perfectly objective. Some... So I agree that in real life they can be merged. But I don't recommend it. I especially don't recommend it if one is dealing with how to evaluate designs. Thus my original post.

And, distinctly and separately, I do know that people use the term FOM when they mean something else.
That's why I gave the examples of an FOM and a cost function or objective function - to show that they are different things.

Just to be clear, I was using "cost function" or "objective function" as a set of optimization constraints, weights, parameters...etc. $$ cost can certainly be part of a design - it should be! But that's not what "cost function" referred to directly.

Also, when I say "optimization" I'm referring to something like an algorithmic procedure (which could include a human in the loop to adjust algorithm properties like step size, reset starting points, etc.) that specifically addresses an objective function.

It may be that such an optimization method can reach an acceptable design without human intervention. However, the criteria for such an optimization should not be called a Figure of Merit.

If I start with either an "optimization criteria", "cost function" or "objective function" and if I have an algorithm that is guaranteed to find a global optimum, that doesn't mean that there isn't a better design. What it means is that there is no better design that maximizes (or minimizes) the objective function subject to the same constraints.

So, this could lead to a trick challenge:
"give me a complete objective function and I guarantee that this or that algorithm will find a solution that's unbeatable".
Well, if that's a guaranteed result, of course!
However, that doesn't mean the specific design arrived at in this manner is "better" than another if different constraints or conditions are used.
That's where the subjectivity comes in. The constraints and conditions aren't an FOM.

I will give another example:

I want to design an array with minimum beamwidth and minimum sidelobe levels and the size of the array is fixed. That's the objective function. We note that minimum beamwidth and minimum sidelobe levels are competing requirements. So, we clarify the requirement so that 20 degree beamwidth is the maximum allowed and -20db sidelobes are the maximum allowed and that narrow beamwidth is more important than low sidelobes. Now we have the design criteria we're going to work with in this case - there could be other parameters.... The resulting design determines an array taper or weighting

function that results in 10 degree beamwidth and -20 dB sidelobes which could be formed into a Figure of Merit of sidelobe level to beamwidth ratio |SL|/BW.

Note that we didn't say that we wanted to maximize this FOM in the design - although we could have added it to the mix - it's simply a measure that tells you something about the design once it's done. In my experience, adding this particular FOM to the mix of optimization criteria would have made the criteria somewhat convolved because we are already treating both sidelobe level and beamwidth anyway.

I didn't follow:

">THIS is the subjectivity of FOM
> because you allowed the caprice of other's subjective attitudes to
> force a selection."

I'd rather not deal with attitudes here. I'm not suggesting any sort of "forcing". The FOMs that I suggest be OK are completely objective in their definition. That's not to say that assigning a value to, and including, one of these FOMs as part of the mix in a design goal mix doesn't involve a subjective set of decisions.

Bottom line: Don't use the term FOM when you mean "design criteria" or "objective function" or.... that's the recommendation. Of course, folks will do whatever they feel is best for their situation. My objective in starting the thread was to suggest something that might be useful - if one chooses to adopt it.

Fred AC7VR

1375. FS: sma-to-bnc custom fit antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 18:20:53 UTC
From: gulyas@earthlink.net
Message-ID: <12235960.0210261020.7fd74225@posting.google.com>
Source record: 132512
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap,rec.radio.scanner

Do you have a need for a high-quality SMA-to-BNC antenna adapter that
is custom made to fit and protect your H.T. or scanner radio?

Adapter allows you to:
Quickly change antennas to base, mobile or different style use.
Use the more popular and wider selection available of BNC antennas.
Prevent chassis connector wear or from coming loose due to antenna
changes.

Adapter features:
Gold plated contacts with a teflon insulator.
A low profile design with a rubber covering for a factory antenna look.
The rubber base seals to the top of the radio with no spacers needed
for moisture and dirt protection.
The base also provides an excellent support for any length of antenna
or application.
No need to remove adapter once installed to make a quick and safe
antenna change.

Sizes to fit radio models:
Yaesu: VX-5, VX-1, FT-50-R, VX-10, VX-150, VX-110, VXA-100, VXA-120
Icom: IC-T90, IC-T8A, IC-T81A, IC-Q7A, IC-R2
Kenwood: TH-D7, TH-G71, TH-F6A, TH-F7A
Alinco: DJ-V5, DJ-X3, DJ-S40
Standard: C508A, C510A
Radio Shack: HTX-420, HTX-400, HTX-245, HTX-200
Aor: AR-16

Previewed in the May 2000 Issue of CQ Magazine, and the Nov. 2000
Issue of QST Magazine.

$11.95 + $1.50 S+H(One to unlimited)
(Check or money order only in U.S.Funds)
(Specify-radio-model)

STEPHEN G.GULYAS
706 LALOR ST.
TRENTON, N.J. 08610
U.S.A.

A photo of the adapter is available upon request.

I welcome any questions or comments at my email:
gulyas@earthlink.net

Thanks for looking at my posting.
S.G.G. KC2BHO 73's

1376. Re: Figures of Meri t(FOM) and Optimization

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 18:50:00 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <stBu9.7215$VJ5.389728@bgtnsc05-news.ops.worldnet.att.net>
Source record: 132515

"Fred Marshall" <fmarshall@acm.org> wrote in message
news:apas86ekt1@feed.centurytel.net...

> So, with that small objection / clarification about terminology I hope we
> agree.
>
> Fred

Fred, for the most part I would have to say yes.

Steve

1377. Re: antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 19:16:36 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <l2klrug0irabv5sss5uovjihmiosrq2jev@4ax.com>
Source record: 132516

On Fri, 25 Oct 2002 08:22:53 -0500 (CDT), richardharrison@webtv.net (Richard Harrison) wrote:

>John wrote:
>"I am using long wire and a standard discone, but want to listen to
>space coms and anyhing higher up in the frequencies."

>
>A discone works over several octaves well, based on its size. It is
>vertically polarized and has a null at its zenith.

This is true only over the lower end of those same, several octaves.

>
>For best performance from 0.1 MHz to 2.6 GHz requires several antennas.
>To listen to space coms may require several antennas, and reception from
>nearly directly overhead where the dscone has a null.

Hi Richard,

I have a model, a 16 spoke style (not solid sheet) discone that just manages to exhibit the hallmark characteristics found in text books. Of particular note is that at the low end of its service range (40M) where the feed point is at an elevation of 40 feet (the lower spokes's tips are 10 feet above ground) it has a sharp radiation lobe peaked at 20 degrees. (EZNEC reports -1dBi allowing for losses and real ground).

When I tune up to 10M, it matches as it should, and it shows about 6 dB more gain - with a sharp lobe at 60 degrees. That former 20 degree lobe is now suppressed 10dB below this peak.

With a radical shift to 2M, it is stumbling out of match (possibly due to a lack of segments - the model running at 497), but throwing caution to the winds, I press on and find EZNEC reports roughly the same peak gain, but now at 85 degrees, and that former 20 degree lobe still buried at -10dBrePeak.

Well, to an avid 40M/10M/2M user, this is mixed news; as the adage goes, one man's meat is another man's poison: translate the antenna size to your bands of choice. Our original poster, John, could observe some cheap gain in using tall verticals to aim at the stars. With a discone it could be very useful to turn its deficit (that high lobe at the upper end of the match range) into an asset (space comms). Hopefully, the lower end of the match (with a view more toward the horizon) is a band you already want to focus on.

73's
Richard Clark, KB7QHC

1378. Re: Passive re-radiate UHF signal?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 19:29:48 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <uGhUaCAs0uu9EwYD@g3ohx.demon.co.uk>
Source record: 132517

In article <ZyUZHDA4Dau9Ew8d@g3ohx.demon.co.uk>, Ian Jackson
<ianjackson@g3ohx.demon.co.uk> writes
>In article <ugyM2BFfCHA.1648@cpimsnntpa03>, Charles McDevitt
><Chuck_McDevitt@m-s-n.com> writes
>>I have a large hill directly between me and a UHF transmitter that I want to
>>receive.
>>The hill is dead-center in line with the transmitter, and close to where I
>>live,
>>but tall enough my antenna can't "see" over it.
>>
>>So, I was thinking, and wondering if this would work:
>>
>>If I take 2 UHF antennas up on the hill, and point one to the UHF
>>transmitter,
>>and the other to my house, and then wire the two together, will this do
>>anything useful?
>>
>>It seems like this would passively re-radiate the UHF signal, and allow me
>>to
>>see over the hill, but I don't know enough to tell if this can work.
>>
>>Anyone here know the answer?
>>
>>Chuck
>>
>>
>This is said to work. I'm sure that I have seen an article in a cable TV
>technical journal (about 20 years ago).
>There may be a bit of a snag. If your redirected signal is only about
>the same strength as the direct signal, and the two arrive at your
>receiving antenna in antiphase, and the effect may be that the resulting
>signals is even weaker than when you started. But I reckon it's worth a
>try.
>Ian.
>
>
Just a follow-up...
If you do get signs of cancellation, you can always set the 'transmit'
antenna to the opposite polarisation (ie probably vertical in your case,
with the antenna on your house also vertical).

In the UK, there are a few very isolated places where the local
community has, with official sanction, installed a 'self-help' on-
channel relay of the UHF TV signals. This is what you propose, but with

an amplifier between the antennas. This is obviously more effective than the passive arrangement, but you have to provide power. You also must ensure that there is sufficient isolation between the antennas (I reckon that this would need to be at least the gain of the amplifier plus 20dB) - and cross-polarisation also helps here.

Ian.

1379. Re: Gain Coax

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 20:06:56 UTC
From: Larry Makoski <Makos327@worldnet.att.net>
Message-ID: <ABCu9.27548$Mb3.1117318@bgtnsc04-news.ops.worldnet.att.net>
Source record: 132518

Yeah, I'll buy some to run to my "dummy" load.

"NCS NECkid" <123@456.789> wrote in message
news:urk2scfumr5he8@corp.supernews.com...
> Anybody want some gain coax?
>
> I sell it by the "linear" foot!
>
>
>

1380. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 20:16:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urlu1f6lnpn525@corp.supernews.com>
Source record: 132520

CAM wrote:
> "Dr. William J. Schmidt, II" wrote:
>
>>I had a dipole up 60 feet, and the vertical beats
>>the pants off it.
>
>
> How does a vertical monopole manage to obtain an omni-
> directional gain of greater than 6 dBi?

Oh, did he say that he was doing all his communicating at the azimuth and elevation angles where each antenna's gain was maximum? I missed that part. Must have been tricky to do. . .

Roy Lewallen, W7EL

1381. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 20:17:35 UTC
From: cprstn54zz@att.net
Message-ID: <3dbaf697.47177562@news-server.optonline.net>
Source record: 132519

On Sat, 26 Oct 2002 13:08:02 -0400, "Tarmo Tammaru"
<t-tammaru@home.com> wrote:
>Ken, I did 100 ohms in parallel with 50 gives (50 x 100)/150 =33 ohms. Now
>there is a voltage divider of 22 ohms in series with 33, which gives
>V(new)=V(old)x 33/(33+22))= .6 V(old). But, you square that for power; so,
>the new power=3W x .6 x .6 = 1.08W. Notice that the transmitter sees 22 ohms
>in series with 33, or 55 ohms. This is pretty good. Now if the input
>impedance of the amp is other than 50 ohms, like 100, the numbers will be
>different. That is why you need to experiment.

Thank you, Tam.

Can you please tell me one more thing? The kit project manager
responded to me and showed me how to modify the amp to get whatever
attenuation I want by changing resistors in the amp. However, this
does not give me the flexibility I want to change the attenuation in
the field, so I will be making an attenuation box with a switch.

His attenuation circuit has two shunt resistors -- one before and one
after the series resistor. Do you know why it is done that way? See
R2, R3 and R4 at:
http://www.hfprojects.com/projects/hfpacker/MOSFET_AMP_REV1.PDF

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1382. Program BOTLOAD

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 20:22:40 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apetifbjv2@knossos.btinternet.com>
Source record: 132521

**NOW AVAILABLE **
Program BOTLOAD2.exe"

An improved version of "Botload" which is now no longer available. This simple program calculates base feedpoint impedance, R+jX, of any vertical antenna height and diameter. Also value of inductive or capacitive bottom loading component. Also, for given length and diameter of loading coil, the number of turns, winding pitch and wire-gauge.

Vary antenna height from keyboard to find heights at which feedpoint resistance matches 50 or 75-ohm coaxial feedlines. Or any other particular Zo. Metric and Imperial dimensions displayed.

Download in a few seconds. Run immediately.

========================
Regards from Reg G4FGQ
Free Radio Design Software
Go to http://www.g4fgq.com
========================

1383. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 20:24:39 UTC
From: Jack Leishman <k8xx@gtii.com>
Message-ID: <urluf39diors18@corp.supernews.com>
Source record: 132522

he whole idea is to conserve the battery. I would elect to reduce drive in some other fashion than burn it up in the attenuator. jack k8xx

1384. Re: Another vertical question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 21:05:16 UTC
From: Bill M <exray@no>
Message-ID: <urm0o91j1fo634@corp.supernews.com>
Source record: 132523

CAM wrote:
>
> Bill M wrote:
> >
> > As a result of reading the posts here I'm finally getting a grip on
> > ground losses as applied to a vertical antenna installation. I had
> > always been under the misconception that a nice piece of earth provided
> > a better ground plane than say 3 or 4 elevated radials.
> > With that new piece of info in mind, another question comes up.
> > I live in a house on a small crowded lot. The biggest open space would
> > be the roof itself. Typical hurricane proof construction, flat concrete
> > roof with plenty of steel inside.
> > So how does this rate as far as ground losses?
>
> Ground losses appear as a series resistance so a feedpoint impedance
> measurement can give you an approximate idea of what is going on.
> The feedpoint impedance of a 1/4WL vertical is about 35 ohms over
> perfect ground. The feedpoint impedance goes up as ground losses
> increase. You can get a *rough* estimate of the ground losses by
> measuring the feedpoint impedance. It will (at least should) decrease
> as you add radials.
> --
> cheers, CAM http://www.qsl.net/w5dxp

Thanks for the reply Cecil, but my question was regarding the actual
effect of the roof and I guess that wasn't clear. I don't have an
antenna erected yet and am trying to get some advice about which would
be the best starting point - elevated with radials or radials laid on
the roof. Then I can proceed as you suggest.

Thanks again,
Bill

1385. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 21:11:06 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <urm17h3nau7i42@corp.supernews.com>
Source record: 132524

"Ken" <cprstn54zz@att.net> wrote in message
news:3db98863.2460734@news-server.optonline.net...
>
> I will ask on the BBS for the amp project.

Ken, if you are building the HFPacker amp, it already has an attenuator and they talk about how to adjust it for different inputs.

The original amp would deliver around 35 watts with 1 watt in. They put in an attenuator for 2 watts. Later they changed it to 2.5 watts because apparently the FT-817 can't get to 2. But if you read through the builder's notes, they talk about it.

Jack K8XX makes a good point about reducing the drive back in the exciter, since this will result in lower battery use. But it does sound like that might be a little on the challenging side.

..

1386. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 21:11:17 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBB04F5.DADA972B@ieee.org>
Source record: 132526

Roy Lewallen wrote:
>
> CAM wrote:
> > "Dr. William J. Schmidt, II" wrote:
> > >
> >>I had a dipole up 60 feet, and the vertical beats
> >>the pants off it.
> > >
> > > How does a vertical monopole manage to obtain an omni-
> > > directional gain of greater than 6 dBi?
>
> Oh, did he say that he was doing all his communicating at the azimuth
> and elevation angles where each antenna's gain was maximum? I missed
> that part. Must have been tricky to do. . .

"Beats the pants off it" with no stated conditions means to me that
it beats the dipole at all distances in all directions. I simply do
not believe that.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1387. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 21:14:16 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBB05A8.5A2AB54D@ieee.org>
Source record: 132527

Ken wrote:
> His attenuation circuit has two shunt resistors -- one before and one
> after the series resistor. Do you know why it is done that way?

That's the way attenuators are normally configured. Reference, "A
Switchable RF Attenuator", in the ARRL Antenna Book.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1388. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 21:15:59 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <qTOdnfZBZZ1BmCagXTWcqQ@comcast.com>
Source record: 132525

Ken,
I looked at the schematic. That certainly would work. Using 3 resistors is the preferred way to build an attenuator because it gives better control of impedance. In line with Jack's suggestion on saving power, you would save even more if you could raise the efficiency of the amplifier, rather than the 2W transmitter. I assume you are using this for CW. You might ask the amp people if the CW efficiency gets better at 0 bias, that is , with VR1 turned all the way down The gain will go down, but you don't care about that. . Ignore this if you are doing SSB. Another thing to consider. Linear amplifier does not mean that the output power changes linearly with input power, just that the distortion is second order, which gets canceled out in the output transformer and filter. The following is for a Mirage B310G 100 W amp. I have one, and it is linear, but not to gain. I use this at 8 W SSB in. My unit is not this bad, but this is what they claim:
Pin Pout
1/4 25
1/2 50
1 75
2 95
4 100
8 100
What this means is that you migt have to reduce the input power more than you think. Or did they give you a table of Pout versus Pin. I don't remember if that was in this thread. Hope you get it to do what you want.

Tam/WB2TT
"Ken" <cprstn54zz@att.net> wrote in message
news:3dbaf697.47177562@news-server.optonline.net...
> On Sat, 26 Oct 2002 13:08:02 -0400, "Tarmo Tammaru"
> <t-tammaru@home.com> wrote:
> >Ken, I did 100 ohms in parallel with 50 gives (50 x 100)/150 =33 ohms.
Now
> >there is a voltage divider of 22 ohms in series with 33, which gives
> >V(new)=V(old)x 33/(33+22))= .6 V(old). But, you square that for power;
so,
> >the new power=3W x .6 x .6 = 1.08W. Notice that the transmitter sees 22
ohms
> >in series with 33, or 55 ohms. This is pretty good. Now if the input
> >impedance of the amp is other than 50 ohms, like 100, the numbers will be
> >different. That is why you need to experiment.
>
> Thank you, Tam.
>
> Can you please tell me one more thing? The kit project manager

> responded to me and showed me how to modify the amp to get whatever
> attenuation I want by changing resistors in the amp. However, this
> does not give me the flexibility I want to change the attenuation in
> the field, so I will be making an attenuation box with a switch.
>
> His attenuation circuit has two shunt resistors -- one before and one
> after the series resistor. Do you know why it is done that way? See
> R2, R3 and R4 at:
> http://www.hfprojects.com/projects/hfpacker/MOSFET_AMP_REV1.PDF
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

1389. Re: Another vertical question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 21:19:30 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBB06E2.DBC5875C@ieee.org>
Source record: 132528

Bill M wrote:
>
> CAM wrote:
> >
> > Bill M wrote:
> Thanks for the reply Cecil, but my question was regarding the actual
> effect of the roof and I guess that wasn't clear. I don't have an
> antenna erected yet and am trying to get some advice about which would
> be the best starting point - elevated with radials or radials laid on
> the roof. Then I can proceed as you suggest.

Point is that nobody can predict the *exact* characteristics
of your roof so "cut and try" will gain you much more information
that all the personal opinions that you might elicit from this
newsgroup. As NIKE says, "Just do it!"
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1390. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 21:27:08 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <jeicndUOGob7hSagXTWc3w@ctc.net>
Source record: 132530

Linear should mean that doubling the input power will double the output.
The output should follow the input in a linear maner. Anything else will
create distortion and more likely make for a broad signal. FM will not be
distorted but the ssb signal will. Either one will make for a broad signal
and maybe more harmonics.

As vhf is not usually too well used most of the time the bad signals are not
reported as much as they would on the lower bands. You can usually tell if
someone is using a transistor amp and overdriving it on VHF.

> that. . Ignore this if you are doing SSB. Another thing to consider.
Linear
> amplifier does not mean that the output power changes linearly with input
> power, just that the distortion is second order, which gets canceled out
in
> the output transformer and filter. The following is for a Mirage B310G
100
> W amp. I have one, and it is linear, but not to gain. I use this at 8 W
SSB
> in. My unit is not this bad, but this is what they claim:
> Pin Pout
> 1/4 25
> 1/2 50
> 1 75
> 2 95
> 4 100
> 8 100

1391. Re: Another vertical question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 21:57:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urm3utnp0jc9e@corp.supernews.com>
Source record: 132529

Elevating radials above the ground reduces loss because it reduces the current in the ground, and ground has relatively high resistance. The metal in your roof shouldn't have appreciable resistance at RF, so there probably wouldn't be any advantage to elevating the radials above it.

Roy Lewallen, W7EL

Bill M wrote:
> As a result of reading the posts here I'm finally getting a grip on
> ground losses as applied to a vertical antenna installation. I had
> always been under the misconception that a nice piece of earth provided
> a better ground plane than say 3 or 4 elevated radials.
> With that new piece of info in mind, another question comes up.
> I live in a house on a small crowded lot. The biggest open space would
> be the roof itself. Typical hurricane proof construction, flat concrete
> roof with plenty of steel inside.
> So how does this rate as far as ground losses? Would I be better off
> laying radials directly on the roof or going to an elevated scheme?
> Thanks,
> Bill WX4A/KP4

1392. Re: Gain Coax

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 22:26:48 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <k7RDhPDoaxu9EAbN@ifwtech.co.uk>
Source record: 132531

NCS NECkid wrote:
>Anybody want some gain coax?
>
>I sell it by the "linear" foot!

Gainiax (TM) was once advertised by a British company in an April
'RadCom'. Lots of people wanted to order some.

If you coil it up, be careful not to join the connectors at both ends.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

1393. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 22:50:20 UTC
From: cprstn54zz@att.net
Message-ID: <3dbb19d2.56196140@news-server.optonline.net>
Source record: 132532

On Sat, 26 Oct 2002 16:24:39 -0400, "Jack Leishman" <k8xx@gtii.com>
wrote:
>he whole idea is to conserve the battery. I would elect to reduce drive in
>some other fashion than burn it up in the attenuator. jack k8xx

True. But if I needed to conserve power, I would go out barefoot at 3
watts. If I am using the amp in the field, I have some power to spare
and wasting 2.5 watts of the three -- when the amp is sucking 10 amps
-- is not unbearable.

I expect that my next radio (DSW-II?) will have an effiicient
adjustable gain. That would adress the problem.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1394. Re: Gain Coax

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-26 23:21:57 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DBB2395.4BFE2D11@cwis.net>
Source record: 132533

Ian,
Wouldn't that make it a 'closed circuit'?
If you were using it on SSTV, closed circuit is
very good...
'Doc

1395. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 00:14:55 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <tjydnSzUioRXsiagXTWcog@comcast.com>
Source record: 132534

Ralph,

Even order distortion will NOT cause splatter. That is because these products will be 2X or more of the signal frequency. Look at P(o) vs P(in) specs for "linear" RF power transistors. The rated power will be beyond the point where the curve becomes nonlinear. You can still have third order products 30 DB down even though it looks like you are operating in the nonlinear region. I think you WOULD get compression of an SSB signal. So, if you were using a 100W transistor as a driver in a TV transmitter, you would have to derate it.

BTW The amp that Ken is building uses IRF510 transistors. These are DC/DC converter transistors, and there is no data in the Motorola book on their use as amplifiers; doesn't mean they won't work - remember the sweep tubes (maybe not)!

Tam/WB2TT
"Ralph Mowery" <rmowery@ctc.net> wrote in message
news:jeicndUOGob7hSagXTWc3w@ctc.net...
> Linear should mean that doubling the input power will double the output.
> The output should follow the input in a linear maner. Anything else will
> create distortion and more likely make for a broad signal. FM will not be
> distorted but the ssb signal will. Either one will make for a broad
signal
> and maybe more harmonics.
>
> As vhf is not usually too well used most of the time the bad signals are
not
> reported as much as they would on the lower bands. You can usually tell
if
> someone is using a transistor amp and overdriving it on VHF.
>
>
> > that. . Ignore this if you are doing SSB. Another thing to consider.
> Linear
> > amplifier does not mean that the output power changes linearly with
input
> > power, just that the distortion is second order, which gets canceled out
> in
> > the output transformer and filter. The following is for a Mirage B310G
> 100
> > W amp. I have one, and it is linear, but not to gain. I use this at 8 W
> SSB
> > in. My unit is not this bad, but this is what they claim:
> > Pin Pout

> > 1/4 25
> > 1/2 50
> > 1 75
> > 2 95
> > 4 100
> > 8 100
>
>

1396. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 00:20:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urmcbc2n1mcf2e@corp.supernews.com>
Source record: 132535

You need three resistors if you want to simultaneously specify the resistance looking at the attenuator from the input side, the resistance seen from the output side, and the attenuation. If you'll settle for control of only two out of these three, you can get by with two resistors (an L section). And if you'll settle for only one, you can do it with one resistor (series or shunt). These all assume that the source and load are purely resistive. If there's reactance involved, the problem increases in complexity, and the attenuator has to include capacitors and/or inductors if you want to satisfy impedance requirements.

So you can have a three resistor attenuator that looks like a 50 ohm load to the driving device, like a 50 ohm source to the driven device, and with the attenuation you want. There are two ways to connect the three resistors, pi and tee. For any pi network, you can design a tee network with exactly the same impedance and attenuation characteristics -- if you put the two into black boxes you wouldn't be able to tell which you had. So you can choose which one to use on the basis of convenience in resistor values and dissipation. (The total dissipation will be the same for two equivalent networks, but it'll be distributed differently among the resistors.) If you want to make it adjustable, one choice might allow more adjustment than the other with a single variable resistor before the mismatch becomes intolerable. If you don't want to spend a lot of time playing with equations, simply build a pi attenuator with an adjustable series resistor and a tee with an adjustable shunt resistor and see if either will give you the attenuation range you need without unduly disturbing the transmitter or amplifier (or cooking the variable resistor).

Pi sections are usually chosen for switchable attenuators since the topology lends itself well to mounting on slide switch terminals. Pi sections are also convenient from an inter-section shielding standpoint -- the series resistor can be passed through the shield wall, with one shunt resistor on each side. This provides fairly good isolation of the input and output currents. But from a circuit standpoint, a tee section does exactly the same thing.

Roy Lewallen, W7EL

CAM wrote:
> Ken wrote:
>
>>His attenuation circuit has two shunt resistors -- one before and one
>>after the series resistor. Do you know why it is done that way?
>
>

> That's the way attenuators are normally configured. Reference, "A
> Switchable RF Attenuator", in the ARRL Antenna Book.

1397. Re: Another vertical question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 01:04:30 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3dbb416e_3@news1.prserv.net>
Source record: 132537

Group:

I sent Bill some other details, but it dawned on me that I need to share the following. Concrete plus rebars when immersed in a RF field is an intermodulation distortion generator. For average receiving, it probably would be unnoticed, but any transmit power, or even low transmit power while trying to receive weak signals is a bummer. The group I work with has measured several cases of concrete IMD problems at DF sites, and one involved a VHF transmitter with the antenna too close to the roof which caused the HF noise floor to rise significantly whenever it was keyed. If it were me, I would string a number of radials above the cement roof to minimize the currents in the roof before transmitting in the configuration that Bill describes.

--
Crazy George
Remove NO and SPAM from return address
Bill M <"exray"@no spam-caribe.net> wrote in message
news:urlkqbab8rucbe@corp.supernews.com...
> As a result of reading the posts here I'm finally getting a grip on
> ground losses as applied to a vertical antenna installation. I had
> always been under the misconception that a nice piece of earth provided
> a better ground plane than say 3 or 4 elevated radials.
> With that new piece of info in mind, another question comes up.
> I live in a house on a small crowded lot. The biggest open space would
> be the roof itself. Typical hurricane proof construction, flat concrete
> roof with plenty of steel inside.
> So how does this rate as far as ground losses? Would I be better off
> laying radials directly on the roof or going to an elevated scheme?
> Thanks,
> Bill WX4A/KP4

1398. Re: Another vertical question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 01:07:32 UTC
From: Bill M <exray@no>
Message-ID: <urmeufb8bse368@corp.supernews.com>
Source record: 132536

Roy Lewallen wrote:
>
> Elevating radials above the ground reduces loss because it reduces the
> current in the ground, and ground has relatively high resistance. The
> metal in your roof shouldn't have appreciable resistance at RF, so there
> probably wouldn't be any advantage to elevating the radials above it.
>
> Roy Lewallen, W7EL

Thanks, Roy.
-Bill M

1399. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 01:33:47 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DBB428D.63DFAB90@bellatlantic.net>
Source record: 132538

Art Unwin KB9MZ wrote:
> Of course Q.S.T. would not change
> but the link I refered to on steppir page is worth
> a read even if there is no interest in the antenna
> (which by the way I hear is selling in huge numbers)
> Art

Art,

Could you post the link here? I'm not sure of
what issue or article you are referring to -
but the link would sure be of interest!

Thanks!

1400. Re: Another vertical question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 01:39:48 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apfg53$93k$1@knossos.btinternet.com>
Source record: 132539

"Roy Lewallen" wrote
> Elevating radials above the ground reduces loss because it reduces the
> current in the ground, and ground has relatively high resistance. The
> metal in your roof shouldn't have appreciable resistance at RF, so there
> probably wouldn't be any advantage to elevating the radials above it.

==========

On the other hand, with high resistance soil such as dry rock and desert
sand which have the properties of insulators, the loss in the ground will
again be very low.

So what value of soil resistivity results in maximum loss ?

Reg, G4FGQ

1401. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 01:45:13 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <3QSdnf6FruNo2SagXTWcpQ@comcast.com>
Source record: 132540

Roy,
Right you are, but the transmitter wants to see 50 ohms. What its output impedance is, nobody knows.

Tam/WB2TT
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:urmcbc2n1mcf2e@corp.supernews.com...
> You need three resistors if you want to simultaneously specify the
> resistance looking at the attenuator from the input side, the resistance
> seen from the output side, and the attenuation. If you'll settle for
> control of only two out of these three, you can get by with two
> resistors (an L section). And if you'll settle for only one, you can do
> it with one resistor (series or shunt). These all assume that the source
> and load are purely resistive. If there's reactance involved, the
> problem increases in complexity, and the attenuator has to include
> capacitors and/or inductors if you want to satisfy impedance requirements.
>

1402. Re: Noise Level

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 02:14:15 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DBB4C07.705BE3EA@bellatlantic.net>
Source record: 132541

John Passaneau wrote:
>
> Hi Bill:
>
>
> What I do, is I remove the jacket, then I tin the braid for about a 1/2".
> Then I use a small tubing cutter cut the braid. The small tubing cutter is
> designed to be used in tight places and is very small. They can be found at
> any hardware or home center.

The tubing cutter is absolutely great for that. And I use
it to strip the jacket, too. Makes removing the jacket a
pleasure instead of a chore! You don't have to use the
kind for small spaces - the bigger ones work, too.

1403. Re: Window mount antennas/tinted windows?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 02:53:57 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DBB5554.DA2B4BB4@bellatlantic.net>
Source record: 132542

JLB wrote:
>
> How can I tell if the tint on my car windows is metalic?
>
> I have a 2000 Ford Taurus Wagon, and the side window where I would
> like to mount the antenna has a dark opaque tint around the edges with
> a transparent tint in the center section. If I mount my antenna on
> the transparent part it would be too low, particularly on 440 MHz.
>
> Has anyone out there used a glass mount antenna on a Ford Taurus
> wagon?
>
> Jim
> N8EE

Three possibilities come to mind:
1. Contact Ford and ask.
2. Make a capacitor of two 2" or so plates and stick them on
the transparent glass with masking tape, with a short lead from
the inside plate to the car body as close as possible to where
you'll mount the antenna. Measure the capacitance. Now, move
the capacitor to the tinted part and measure again. Should be
about the same if the glass does not have a metallic tint.
Unfortunately, Fords are known to use metallic tint, if what I
have heard is true.
3. Go to a mobile phone installer and ask them about thru
glass antennas on a Taurus.

1404. Re: Window mount antennas/tinted windows?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 03:20:04 UTC
From: k9sqg@aol.com
Message-ID: <20021026232004.23057.00000601@mb-fa.aol.com>
Source record: 132543

Good luck with contacting Ford, hi...

1405. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 03:42:57 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DBB60D1.49877ED1@bellatlantic.net>
Source record: 132544

Roy Lewallen wrote:
>
> There was a long thread about this topic not long ago -- you should be
> able to find it with a Google search. It prompted me to post several
> tutorials on transmission line waves, including quite a bit about
> forward and reverse power. I'm sorry I haven't prettied it up yet, but
> you can get the postings in their original text format at
> ftp://eznec.com/pub/Food for Thought/.

I found it at:
ftp://eznec.com/pub/food_for_thought/

Thanks, Roy!
>
> Roy Lewallen, W7EL
>
> ON5MJ wrote:
> > Hi Reg,
> >
> > | It has nothing to do with any imaginary, confusing, so-called forward and
> > | reflected power.
> >
> > What do you mean by imaginary ? Do you mean forward and reflected power have
> > 90ï¿½ of phase difference, which is not true as they are 180ï¿½ ?
> >
> > 73 de ON5MJ - Jacques.
> >
> >
> >

1406. Re: Designing a small antenna for a small keychain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 04:00:09 UTC
From: nleahcim@hotmail.com
Message-ID: <81b26b90.0210262000.3a1dc47@posting.google.com>
Source record: 132545

'Doc <w5lz@cwis.net> wrote in message news:<3DB97300.4C195E5A@cwis.net>...
> Michael,
> A 1/4 wave antenna at about 315 Mhz is close
> to 3/4" in length. A 1/2 wave about 1.5" long.
> If the frequency of use is higher than 315 Mhz
> the antenna would be even shorter. Depending on
> how large the transmitter's case, either should
> work okay for you. As for the receiver's antenna,
> I would think that the length should be about the
> same. Height will make more difference than it's
> length will. I wouldn't expect much range, no matter
> what antenna you used...
> 'Doc
> PS - Where did you find the rcvr/xmtr chips?

OK - well, this will probably change things a bit: I got the 433.92MHz chips. Hopefully that makes things easier... I found out about the chips from someone with the screenname "grog" from sci.electronics.components. He actually told me about the TLP-434 and RLP-434 - but when I called Laipac to order - they only had the new and improved TLP-434A and RLP-434A. They were still just incredibly cheap though. (like I think about $4 each!) So, what affect would this frequency have on things? Thanks!

1407. Re: Another vertical question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 04:32:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urmr36biio7j50@corp.supernews.com>
Source record: 132546

Do you mean we can't get the answer from program MAXLOSS, run
immediately, not zipped-up?

Roy Lewallen, W7EL

Reg Edwards wrote:
> "Roy Lewallen" wrote
>
>>Elevating radials above the ground reduces loss because it reduces the
>>current in the ground, and ground has relatively high resistance. The
>>metal in your roof shouldn't have appreciable resistance at RF, so there
>>probably wouldn't be any advantage to elevating the radials above it.
>
>
> ==========
>
> On the other hand, with high resistance soil such as dry rock and desert
> sand which have the properties of insulators, the loss in the ground will
> again be very low.
>
> So what value of soil resistivity results in maximum loss ?
> ---
> Reg, G4FGQ
>
>
>

1408. Re: Passive re-radiate UHF signal?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 04:33:35 UTC
From: dplatt@radagast.org
Message-ID: <urmr4v14vc1u6e@corp.supernews.com>
Source record: 132548

> "It seems this would allow to passively re-radiate the UHF signal and
> allow me to see over the hill, but I don`t know enough to tell if this
> can work."
>
>You will need high gain antennas.
>
>It works at about 10x the frequency with microwave dishes. A "passive
>repeater" is sometimes made of back-to-back dishes connected with a
>short length of waveguide. "Billboards are more popular for their higher
>efficiency.
>
>Each microwave dish is only about 55% efficient and the waveguide adds
>more loss.
>
>For UHF, the yagis, rhombics, etc. are less eficient than dishes. Dishes
>and bilboards are likely out of the question due to size. The only way
>to determine the viability of back-to-back UHF antennas in the
>particular situation without path and signal strength information is to
>give it a try.

A guy I know did an installation like this on one of the U.S. Virgin Islands. His dad had a long-term mooring at a marina located on one side of the island, and the only TV station in the area was located on the far side of the island (or on the next island over). The direct line of sight was blocked by the island peak, and signal reception was terrible.

He hooked up a couple of "deep fringe" TV antennas back-to-back on one of the island ridges, aimed one at the transmitter and the other down at the marina.

It worked, well enough to give a viewable picture.

So, I'd say it's worth a try. A couple of homebrew Yagi antennas cut for the UHF repeater frequency shouldn't be hard or expensive to build.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1409. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 04:40:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urmri418us3b38@corp.supernews.com>
Source record: 132547

Well, it works both ways. The transmitter would like to see 50 ohms, and the amplifier would also probably like to see a 50 ohm source, so without any other information it's probably best to design for 50 ohms at both ends. Of course, if the impedance at one end of the attenuator isn't what you design for, then the impedance looking into the other end won't be what you expect. But the more attenuation you have, the less the deviation will be. Also, if the impedance at either end isn't what you design for, the attenuation won't be what you expect either. But it would certainly be close enough for the application at hand.

An ongoing controversy about the nature of a conjugate match has spurred a number of people to measure the output impedances of a number of amplifiers using various methods. It seems that they mostly actually do look a lot like 50 ohms when adjusted for rated output. This certainly isn't a requirement, though, and there might well be plenty of transmitters out there that don't.

Roy Lewallen, W7EL

Tarmo Tammaru wrote:
> Roy,
> Right you are, but the transmitter wants to see 50 ohms. What its output
> impedance is, nobody knows.
>
> Tam/WB2TT
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:urmcbc2n1mcf2e@corp.supernews.com...
>
>>You need three resistors if you want to simultaneously specify the
>>resistance looking at the attenuator from the input side, the resistance
>>seen from the output side, and the attenuation. If you'll settle for
>>control of only two out of these three, you can get by with two
>>resistors (an L section). And if you'll settle for only one, you can do
>>it with one resistor (series or shunt). These all assume that the source
>>and load are purely resistive. If there's reactance involved, the
>>problem increases in complexity, and the attenuator has to include
>>capacitors and/or inductors if you want to satisfy impedance requirements.
>>
>
>
>
>

1410. Re: Another vertical question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 10:07:01 UTC
From: KC1DI <elbc2@gwi.net>
Message-ID: <3denrus4aan7prkqgao91hrivtbm954f6b@4ax.com>
Source record: 132549

On Sat, 26 Oct 2002 13:41:39 -0400, Bill M <"exray"@no
spam-caribe.net> wrote:

>As a result of reading the posts here I'm finally getting a grip on
>ground losses as applied to a vertical antenna installation. I had
>always been under the misconception that a nice piece of earth provided
>a better ground plane than say 3 or 4 elevated radials.
>With that new piece of info in mind, another question comes up.
>I live in a house on a small crowded lot. The biggest open space would
>be the roof itself. Typical hurricane proof construction, flat concrete
>roof with plenty of steel inside.
>So how does this rate as far as ground losses? Would I be better off
>laying radials directly on the roof or going to an elevated scheme?
>Thanks,
>Bill WX4A/KP4

Bill,

You've received many good post already.. but here is one from a
practical point, because I was in a very similar situation as you ,
Cement roof full of rebar and screen .. Mine had a metal vent pipe
comeing up through it which was tied to the metal mesh in the
concreate. I mount my 14AvQ on that , and it worked great on 40 and
15 on 20 and 10 had to readjust the traps slightly to get good swr .

over all the antenna system worked alot of DX but I was only 400 feet
or so from the Ocean at that time also.

I would lay any radial right on the roof first. though you may not
need them .. Happy Hamming,
73 Dave

1411. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 10:14:46 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <pLP8bYGWy7u9EA5T@ifwtech.co.uk>
Source record: 132550

Roy Lewallen wrote:
>. For any pi network, you can design a tee network with exactly the
>same impedance and attenuation characteristics

BASIC and Windows programs to do this are downloadable from:
http://www.ifwtech.co.uk/g3sek/in-prac

They show both configurations on the same page, with the power
dissipation in each resistor, and also show the performance of
attenuators made from the nearest practical resistor values.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'

1412. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 11:05:36 UTC
From: cprstn54zz@att.net
Message-ID: <3dbbc80c.100798500@news-server.optonline.net>
Source record: 132551

On Sun, 27 Oct 2002 10:14:46 +0000, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:
>BASIC and Windows programs to do this are downloadable from:
>http://www.ifwtech.co.uk/g3sek/in-prac

Thanks. Very helpful.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1413. seeking a meter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 13:09:50 UTC
From: Louis <lou1@westnet.com>
Message-ID: <yARu9.1558$Ve3.1105727@monger.newsread.com>
Source record: 132552

hi!

am seeking an old style voltmeter 0 - 15volts dc or 0 - 20.
needle type, not digital. simpson or weston made them.
square or round. basially the meter is a panel type that just tests
voltage. not a multimeter with a switch.
if you have oen pls email me

thanks

louis

1414. Suggested Content for www.n1ir.com (73 to All, Chip N1IR)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 13:55:31 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <6csnru8i8khqj1r3g3v0hj0i8h2car3ha8@4ax.com>
Source record: 132553

The following material, authored by Nathan Cohen, has been extracted from usenet:

==========

C____, this is the last post in which I will allow you to be off topic. You have been asked to engage in a debate. I respectfully request that you consider it, weigh the options, and get back to the NG.

Thank You,

Chip N1IR

If there is a tangible basis for your (bogus) assertions then there are a number of avenues you have to stop this (bogus allegation of) " crass commercialism"; this (bogus allegation of) "flim flam", and so on. For example: WHEN I make my 10M runs, I make announcements about the antenna and give the WEB URL and point out its --ham page-- pointer where the antenna is described. I am quite specific about this. Just like I am here. It seems to me that IF you are CORRECT, it would be very easy for you to seek revocation of my ham license for commercial intent and broadcast. I thus invite you to monitor and record my DX sessions, which are usually conducted on weekends in the mid morning and are very easy to find on the band. Lots of US stations tune in just for the fun of listening. I know this because I get interrupted when a semi-rare station calls and someone stateside asks me if they can work it (I say yes.) Tom orrow is a good time to listen--assuming the band is open. I am likely to be on about 1200 UTC or later on 28500-28510. Given your convictions on this matter, you have a moral obligation to pursue them. Your continued silliness of posting in response to my legitimate dissemination about fractal antennas for hams only paints a black picture for radio amateurs in general. Stop this harrassment and save our great hobby.

73

Chip N1IR

Open door, receive summons, go to court, disappear from the internet. Is that your fate this year Mr. R____? That looks what your goal is. As for me, five years of your harrassment is five years too much. Pass that on to your pals too.

Nathan Cohen

I have been asked by many, including G_______, for more HF designs. I am heartened by the positive response, and when I have some time in

the late Spring I will oblige. Note that I am also about half way through another paper for 73 Magazine on just that topic. Also, keep in mind that I do not respond to technical questions on fractal antennas on this NG due to slander, harassment, and death threats received inthe past. I do, when I have time, respond on the fractal antenna reflector on onelist.com.

73 to All,

Chip N1IR

"It has been brought to my attention that an illegal and bogus use of my screenname has been employed here to falsely represent a public message as being written and sent by me. Under recommendation of my attorney, I am taking this sole opportunity to make public notice regarding this: This is a public notification that any and all claimed USENET messages after January 5, 2001, that bear the signature of Chip N1IR, Nathan Cohen, or chipn1ir@aol.com, are false and bogus. Fractenna@aol.com continues to be used by several individuals including myself. This is a legal and long standing use by those affiliated with Fractal Antenna Systems,Inc. However, I do not use this screenname on USENET. I do not participate in USENET. I understand that Phil, N1ZKT, is doing so and he is welcome under the premise so given. Under the recommendation of my attorney, I have not been involved in any USENET activities since 5 January 2001, so that action against certain individuals may proceed. My superiors at my home institution have been apprised of the situation in January. I have not participated in USENET since the January date. Nor do I intend to. Below is the bogus post. It is not an AOL post.It appears to be a routed post through looksmart. That individual must have used either bogus routing or obtained an account which emulates an AOL screenname.It is not me or anyone I know of. I wish my friends well on USENET and remind then that I may be reached by e-mail for friendly chats, or through the various moderated antenna lists on yahoogroups.

Nathan 'Chip' Cohen

N1IR

617-489-6952 "

Mr. P.O. B_______--

There is "no problem with Chip". This is a public notice that you are to stop all such harassing public posts. This is also to inform you that you are requested to discontinue any contact with me whatsoever, starting now.

Nathan Cohen, Ph.D.

Again, you blame an inane behavior of someone olse upon ME. That is a uniquely bizarre protocol found in this NG. I didn't start this thread and certainly have made NO comments which fall in your category.

Bill A_____ is your man. As for Phil, I am NOT Phil. If you are upset with him then address him directly. He can handle himself. You would at least expect Bill, a retired person, to have the time to find the answer to such an obvious question, before attempting to publicly humiliate someone trying to earn a living, and better himself. Especially when that someone is here to help others as enjoyment; a meaningful diversion from otherthings more tangible and burdensome. Life is tough guys; no need to make it tougher than needed. It's a very disturbing attribute found on this NG.

Nathan Cohen, Ph.D.

N1IR

Under advice from my attorney, I will not react to your new comments. Your continued statements place you in the situation discussed off line. It is up to you to seek out an attoprney's counsel on the matter. I remind you that statements such as "alleged PhD", and so on are deliberate efforts to publicly libel. I will repeat a general statement: Malicious libel is NOT acceptable. It can--AND WILL-- lead to litigation. FYI Mr. O'N___ and I are NOT presently, or planning for, litigation against each other. We resolved our differences reasonably. Furthermore, I have publicly asked for the matter to be dropped. Your continued, unwelcome statements go against my wishes.

Nathan Cohen, Ph.D.

I am passing this onto this newsgroup as at least two offendors use this forum to get traffic to websites which have the copyright violations.

---

16 August 2001

Fractal Antenna Systems,Inc. has received and is reviewing requests fo permission to use one or many of its copyrighted graphics, pictures, and/or files subject to its recent 15 August 2001 deadline and guidelines. As of this date those who who have not requested permission to use said copyright materials as per above are considered intentional violators. The firm has initiated efforts to demand removal of said material(s). If said material(s) is(are) not removed immediately upon notice then the firm will seek legal means to stop the violators and recover treble damages; cost of legal fees; and court expenses as applicable, among other costs accrued. Any questions should be sent from representative counsel by registered mail to:

ATTN: COPYRIGHT VIOLATIONS
Fractal Antenna Systems,Inc.
2 Ledgewood Place
Belmont MA 02478"

Thanks and 73

Phil

de N1ZKT

QST--

Messages about patents on antennas have been a common and accepted topic of discussion on this newsgroup. I have forwarded the following relative to this. " Fractal Antenna Systems, Inc., is seeking any extant evidence of infringement of its patents on fractal element technology. The firm designs and sells antennas based on fractal patterns, especially fractal elements. It holds an exclusive set of US patents on said designs and has many other U.S. and foreign pending patents. The firm seeks possible information on evidence of infringement of its patented technology. It has actively sought out such evidence and has taken successful actions to stop said infringement. The firm is offering $1000 reward(s) to those who can present compelling evidence of products in the US market which incorporate its technology from unauthorized OEM's. If such evidence is found and presented, the first case of an example by a specific unathorized OEM will result in said reward to the individual presenting that example. Such individual will be asked to provide an affidavit and additional materials as requested by the firm's counsel. Please send any additional queries in writing to:

ATTN: Infringement
Corporate Headquarters
Fractal Antenna Systems, Inc.
2 Ledgwood Place
Belmont MA 02478"

Thought I'd pass this on.

73

Phil

de N1ZKT

Mr. M_______--

Our attorney did indeed provide that advice; understands and advised me on fair use; defined for me when a quote is fair use and not fair use. My statement then, as now, is based on his counsel. If your incorrect statements lure others into illegal activities, then you are on public record as being informed that you run the risks associated with them. I note a huge number of times you have been profoundly incorrect--always veering on the side of the unlikely; the illegal; the deceptive. The most absurd one to date was your assessment (during my friendly phone conversation) that the 10M fractal quad Yagi was a fake--because you couldn't see the wire in the photos (everyone else

can), and radio shack ground wire couldn't be bent to hold a shape. According top you, any attempt to do this would produce a drooping mess in minutes. Yet the antenna exists, is well used, and has been up for 13 months. Furthermore it has survived an F1 tornado; various ice storms; and the pinching-velcro effect of pesky oaks (when being raised/lowered). This antenna is a survivor, is what is stated, and should be an inspiration for hams to try it and experiment. If that disagrees with you then too bad. The 10M FQY can be seen on the ham page of :

http://www.fractenna.com

The world is not a big conspiracy meant to test your gullibility Mr. M_______. If it was, I sure wouldn't want to be around it.

Chip N1IR

Sir:

You continue, even in this response, to make accusations with intent to slander and defame. For example: "...chance to prove that for once in your life, you are telling the truth." Your assertion that I have spent a lifetime of lies is extraordinary . And of course absurd in its prevarication. It is also one of many statements you have made which are false, but have been publicly made with--intent-- to slander and or defame me.

I want you to review this and other posts with your daughter. If, indeed, she is an attorney, and represents you, IS NAMED 'D___' as you say, I want you to have her call me at :

617-489-8824.

I will then arrange a meeting in Boston between my counsel and her with the intent of an out of court settlement dealing with your trespasses. This will be the last contact I will publicly have with you, whether you are

'L_____' or actually someone else.

Nathan 'Chip' Cohen N1IR

Again, your comments do not seem to indicate a knowledge of lawsuit law. Mine is rudimentary but under the advice of counsel. If yours was under legal counsel, it certainly would not suggest that the party you claim to be suing, had so prejudiced his case that legal representation was not possible. That is exactly what you have just said--twice. Your insinuation is that the party you are suing should not be represented by the legal system. One must further remember that you have clearly stated that your intent for said suit is to bring financial ruin upon me; not as a settlement against alleged grievance, but purely to destroy me financually. In other words, that was ALWAYS your intent, and any 'grievance' is just a ruse for that plan. I presume this will now be run past a judge.

Cordially,

NC

Again,I must apologize to my colleagues for the harassment by an individual on this NG. My attorney had advised me to publicly request that he stop any form of contact with me, which I did. Yet, in the last few weeks, he has taken every single thread in which I have posted-- and addressed me personally, and always either/or portraying my statements inaccurately, so as to make me look foolish and mocked, and/or personally attacking me with abuse. There is, at this moment, nothing I can do about it. The case I have made will take time to bring to the judge's attention and , by definition, invokes the legal system in another state. I do feel that the case for harassment is overwhelming at this point, and I will now bring the problem to the attention of his ISP. My comments regarding this thread are accurate , and in particular, represent the present experience of colleagues who are professionals at cell tower siting and installation, especially in urban areas. I am obligated to defer to their greater knowledge in this area, which I have done. I would like to make one question clear, however. If, as this individual claims, I have made foolish and incompetent statements 3 years ago on cell tower heights, then why has he not re-posted the thread? Again, I am sorry that every time I get involved in a discussion I am mocked and abused, but please understand that I have done all I can to discourage this behavior, and suggest that you personally ask this individual to end his harassment.

Thank you.

73,

Chip N1IR

It would appear that you believe that the only acceptable solution is for me to not have the right to enjoy myself in this public forum, and that I am responsible for said abuse--by others. Thus you are holding me responsible for the actions of others, and removing my right of free speech, and my own reasonable and honest contributions to this group. Is that the gist of it? If so, can you think of any compelling reason why such an attitude should not extend to every segment of my life? In other words, would you say that I should not talk; write; or express any human action, because in doing so there are those who will counter with abuse--even though I have not done so? What, exactly, is your objective sir?

Nathan Cohen, Ph.D.

I can see that Mr. R____ is under substantial pressure. But I am a reasonable person. IF MR.R____ **STOPS** his CONSTANT PERSONAL ATTACKS AGAINST ME then I will not press charges and I will drop my suit. I couldn't care LESS what R____ discusses--usually inaccurately--in technical discussion. I couldn't care LESS what you say about fractal antenna, or genetic algorithms, or the length of a side of an antenna. Why SHOULD I care? BUT THE HARASSMENT MUST STOP. IT MUST STOP. You

have NO RIGHT to put my family through a constant and unabated HELL promulgated on a PUBLIC and GLOBAL SCALE.. YOU HAVE NO RIGHT to make my family uncomfortable when I try to talk to hams. YOU HAVE NO RIGHT to spread malicious and intentionally wrong information about Fractal Antenna Systems, Inc (do you remember when you claimed that the company had been dropped from incoporation last year? Do you have any idea what that did? I lost 4 new accounts because of that LIE!!) DID YOU HAVE ANY RIGHT to trouble my SICK and DYING father with your nonsense? You bet he read this NG! A week before he died, how do you think he felt with your little conversation with R___?? Doesn't a dying man deserve some peace?? EVERYONE IS SICK of your HARASSMENT! You are the key to stopping it. That much is clear. IF YOU STOP YOUR PERSONAL ATTACKS this will instantly be a differentNG. R___ is right: he is worried about some serious issue coming to a head. That is correct. EITHER you STOP. Now. OR the NG continues the way it is; gets worse AND I press charges and complete my civil lawsuit.No bluff T__. Act sane and do the right thing.

Nathan Cohen, Ph.D.

Thank you for your comments B___t. There is nothing in the above post--which you either misunderstand or misquote-- which says that this individual named 'L____' has threatened me. To date, I have not seen any comments from 'L____' which I feel indicate intent to harm. I have made it very clear what 'L____' has done. You, yourself, can freely discover this by doing a power search on dejanews under the keywords fractenna and L____. This will reveal a long-term harassment by 'L____' for which I neither provoked nor encouraged such response. His behavior of late has pushed the issue over the edge. I will take whatever legal measures exist to assure that the harassment and threats, posed by handful of individuals (against me) do not continue. That includes, but is not limited to, lawsuits if and when that decision is made. It should be noted that a grotesque assertion that I, myself, intend others harm or harassment are unfounded, and inaccurate. I would just like these individuals to stop their chronic behavior and I have no interest in devoting any time thinking about them--beyond the time it takes to get them to stop-- through legal means. Matters of litigation, or resolutions outside of court, are not issues for which your opinion can have much relevance to me.
It would be instructive to note the lack of posts (involving me) from some individuals in the last few days. It is probably a good speculation that these lack of posts (involving me) will continue to be absent. That will make for a far more instructive, sane, and useful NG. I presume, you, as I, look forward to that.

Best 73,

Chip N1IR

I assure you that I am not a pseudoscientist. If you would like a nice summary of my scientific work, in context, may I suggest seeing the piece in July 1999 Scientific American. At present, C______ R____,

W8__, is in the process of being sued by me. This has nothing to do with science or objective or subjective critique. It has to do with his harassment and libel and personal attacks. Litigation has been my option of last resort; it is only his obsession with libelous statements--for example, even today he asks' how many lives I have ruined as a professor'-- which has led to this. Mr. R____ has a checkered past . For example, his harassment of R___ M_______ is well-known to the ham community. There are other things he has done which will come to light. I hope this clarifies the issue for you.

With Best Regards,

Chip N1IR

It really is a jaded, mixed up, perverted world you guys see. I must admit, that in your company, I DO feel like an oddball-- a special kind of 'mental illness' where people are starightforward; friendly;helpful; and don't attempt to make personal attacks. Sort of like Erewhon I guess.. Any more Friday Night Specials? I'd like to play magic tR___s with my son:-)

73,

Chip N1IR

Hey there R___

Why is it that when you make follow ups on my posts you send it to Chip? Don't you GET IT? MY moxxon info came for Cebik's web page. If YOU have something else up that's 0.75 by 1 quad sizes then that's a LOT bigger than the 0.57 by 0.63 quad sizes of the 10M FQY. Your moxxon wouldn't even turn in Chip's tower and it would hit two trees in the process. I don't know what makes you think you can come off throwing pot shots and pretending you know what you're saying here and on other posts directed at Chip me, fractals, and so on. The demonstrated FACT is that your moxxon won't work in this form factor and people can't put it up with the same restrictions as the 10M FQY. Apples and ornages. APPLES and ORANGES. But you want us to think that the apple is the orange and the orange works better. Wrong. Just to blow your mind though Chip came up with a fractalized VK2BDQ square almost 4 YEARS ago and it just sits in the notebook until he feels like letting people know. It's pretty and damn small too. Considering the harassment you've put on here along with your ilk is it no surprise that Chip is in no hurry to let lots of new ham designs get public attention any time soon? I mean to use Chip's words, "does their lunacy go as the arithmetic sum of new designs presented or to the power of new designs presented?" Right now it looks like a power. You've wanted and got your own worldwide forum OM. You really have thousands of people all over the world reading and some indeed buy into your 'mystique of doubt' just because someone who they've heard of says it.. Well you are very wrong and they should be irate at you for misleading them. I hope you e-mail box is full of their responses.

Look at how you've embarrassed yourself. This in one of many many chapters. Like not understanding what an error bar means and accusing Chip of cooking numbers, your alleged 'Chip entrapping interneters sting', your idiotic characterisations of me as Chip's "cabin boy" and "boy toy". There are many many more. Your abuse of freedom of speech is just inexcusable especially when you target someone with Chip's knowledge base helpfulness and integrity.

Phil

de N1ZKT

Thanks for your comments R___. Its important to protect intellectual property. Mr. R____'s post was not fair use. If he had asked and secured permission, and identified the source and permission given, then there would have been no problem. If the cost of such IP protection is loss of cusT__ers, then that is the price that any IP dominated company must pay. In fact, in the last three weeks there have been dramatic numbers of queries and web site hits, which tend to belie your impression. I myself have had to cancel my vacation, and as you might notice, spend relativelyy little time on the NG, with posts that are almost always under a minute to post. Lost a lot of sleep, but its envigorating. I am really enjoying myself with my work! It's exhausting but fun; one of the benefits is I meet some great people who I can help-- and learn from too. I can't say Mr. R____'s path down the black hole of malicious harassment has been a business booster, but the statistics certainly show a time correlation. Perhaps, if Mr. R____ wants things to 'go bad', he should just stop:-> Good luck with your antenna needs. Well, back to work!

73

Chip N1IR

T__--

I have NEVER used vulgarity. I would like to be be VERY CLEAR on the following: Any effort on your part--or anyone else's-- to harass me will be met by legal action. I have advised my associate dean of the harassment that my private posts have been subjected to and I am happy to advice university counsel of actions being taken by me, privately, to stop this abuse. Efforts taken to get me fired--which obviously is your intent Mr. R____-- will be met with full documentation--including the 'tanyaa' episode. If such action is taken on your part it will be made explicitly public on this newsgroup as an indication of your abusive efforts. Furthermore, I will summarize your actions and abuse for your employer in kind. In any case, I am most happy not to use profane language as I have yet to do so. Thus your request is extremely easily met. My requst is simple. STOP THE ABUSE

Chip

I am obligated to point out that a lawsuit is being prepared against Mr. S_____ and that I am under recommendation from my attorney not to respond to his posts. That lawsuit falls under the context of slander and libel. One need only briefly look at his posts (using dejanews) to get a sense of the harassment and accusatory defamation. In Proc ACES 1999, I had a paper presenting numerical simulations to show the role of self similarity and origin symmetry in frequency independence. I have, indeed, tested many antennas to this effect in the last few years. This was not done anechoically. My readily available resources for scientific investigation are, as I said, modest. It will be noted that this was done--and the post was presented here--for purposes of science. If a set of conditions is demonstrated in Maxwell's equations then they correspond to a property of nature. Thus the issue is iron-clad. Nonetheless, it is indeed valuable to do anechoic measurements, and I wish this were possible from this end. A vast body of new frequency independent designs arise from the new revising of Rumsey's Principle as Hohlfeld and Cohen invoke. Of course, only a fraction of given geometric forms have relevance to a specific application. Indeed, the log-periodic structures have been quite rich in applications. The point is that they will built upon as a body of design options, not supplanted.

With Best Regards,

Chip N1IR

Under advice from my attorney, I will not react to your new comments. Your continued statements place you in the situation discussed off line. It is up to you to seek out an attoprney's counsel on the matter. I remind you that statements such as "alleged PhD", and so on are deliberate efforts to publicly libel.I will repeat a general statement: Malicious libel is NOT acceptable. It can--AND WILL-- lead to litigation. FYI Mr. Oï¿½N___ and I are NOT presently, or planning for, litigation against each other. We resolved our differences reasonably. Furthermore, I have publicly asked for the matter to be dropped. Your continued, unwelcome statements go against my wishes.

Nathan Cohen, Ph.D.

Mr. S_____:

This week I will be writing to the Director of the Los Alamos National Laboratory (Dr. John Browne), and the two senators from New Mexico detailing the harassment and libel which you have inveighed against me. These include deliberate and malicious efforts to attempt to get me terminated from my academic position, and false misinformation regarding whether I 'deserve' to have the title Ph.D. , as well as false accusations that you are the inevntor of fractal antenna technology.These will also detail the assertions you have made stating that I am mentally ill. I will describe this inappropriate behavior with the intent to ask the question why someone with such a malicious and destructive focus against an individual should be in the responsible position of being involved with nuclear detonation

development.I have very serious concerns for my personal safety and that of the country if you can make false assertions freely while holding a position with severe and serious responsibility.

Nathan Cohen, Ph.D.

Mr. S_____ has posted an accurate copy of an e-mail I sent him. Mr. S_____ is a a developmental engineer/scientist at the detonation branch ofLos Alamos National Laboratory. He is involved with nuclear detonations, a high security clearance position.The wheels turn.

73

Chip N1IR

1415. Re: What kind of mobile antenna is this?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 14:29:48 UTC
From: "David D." <daviddiamond@comcast.net>
Message-ID: <apgt20$1cn5l$1@ID-128035.news.dfncis.de>
Source record: 132554

"George Kinzer" <horseflygk@worldnet.att.net> wrote in message
news:7yxu9.6781$VJ5.363623@bgtnsc05-news.ops.worldnet.att.net...
> my guess is it was for a tv, 1" was for high speed travel .lol

I don't know that I would add three feet to my van's clearance for TV or for CB. This was not a camper; it was a solid panel, large van.

Personnally, I like the M.I.B. theory. Maybe a triangulating configuration?

If it weren't for the coils, I might have guessed that it was a custom roof rack for specialized cargo.

- David

1416. Re: Passive re-radiate UHF signal?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 14:44:03 UTC
From: richardharrison@webtv.net
Message-ID: <15703-3DBBFBB3-747@storefull-2311.public.lawson.webtv.net>
Source record: 132555

Ian Jackson, G3OHX wrote:
"This (on-channel relay) is obviously more effective than the passive arrangement, but you have to provide power."

With power, signal from an antenna amplifier at the remote site may be wired back to the receiver.

If wired transmission is impractical, a transmission frequency differing from the reception frequency may be used to eliminate feedback.

A heterodyne repeater can be as simple as the first detector in a superheterodyne receiver. No demodulation of picture or sound signals is required.

As far as I know, some "part 15" license-free provision may allow a microwave frequency to be used for the antenna relay. This could make dishes practical. Many 20 to 30 mile microwave paths use 100-milliwatt transmitters with excellent reliability.

Ian`s cross-polarization idea is good for a powered installation, same-frequency repeater. Also, repeater gain makes coax loss affordable. So, separate the input and output antennas of a same-frequency repeater by 2 wavelengths or more. There is 22 db loss in the first wavelength of separation between the antennas. You get 28 db isolation out of 2 wavelengths separation, and 34 db isolation out of 4 wavelengths separation. The point of diminishing returns from antenna separation is reached in a very short distance.

Best regards, Richard Harrison, KB5WZI

1417. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 15:20:12 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <WRadnaqLaNJnniGgXTWcqw@comcast.com>
Source record: 132556

Roy,

I think a transmitter output impedance being in the baallpark of 50 ohms is a coincidence. In the formulas for matching the output of a transistor to a load, the real part of the output impedance does not enter into the calculations. If you consider that at the lower frequencies you can build a class B amplifier with 70+% efficiency, and a class C amp with 80+% efficiency, you know they can't be conjugate matched. I think transistor manufacturers add to the confusion by sometimes talking about ouutput impedance; when you read the fine print of the footnote, they explain that they are really talking about the conjugate of the desired LOAD impedance.

Oddly enough, the one place where you would think that conjugate matching is desirable - antenna to RF amp input, does not quite work either. That is because best noise figure does not coincide with maximum gain.

Tam/WB2TT
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:urmri418us3b38@corp.supernews.com...
> An ongoing controversy about the nature of a conjugate match has spurred
> a number of people to measure the output impedances of a number of
> amplifiers using various methods. It seems that they mostly actually do
> look a lot like 50 ohms when adjusted for rated output. This certainly
> isn't a requirement, though, and there might well be plenty of
> transmitters out there that don't.
>
> Roy Lewallen, W7EL

1418. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 15:27:06 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBC05CA.8067E7EE@ieee.org>
Source record: 132557

Tarmo Tammaru wrote:
> I think a transmitter output impedance being in the baallpark of 50 ohms is
> a coincidence.

I think I would rather have a generator whose internal impedance is a small
fraction of the load impedance. The efficiency of a ham transmitter with
a 0.5 ohm internal impedance would be 99% into a 50 ohm load. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1419. Re: sma-to-bnc custom fit antenna adapter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 15:35:44 UTC
From: John Everson <ab6li@jps.net>
Message-ID: <kJTu9.8805$6F4.757357@newsread2.prod.itd.earthlink.net>
Source record: 132558
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap,rec.radio.scanner

"Stephen G. Gulyas" <gulyas@earthlink.net> wrote in message
news:12235960.0210261020.7fd74225@posting.google.com...
> Do you have a need for a high-quality SMA-to-BNC antenna adapter that
> is custom made to fit and protect your H.T. or scanner radio?
>
> Adapter allows you to:
> Quickly change antennas to base, mobile or different style use.
> Use the more popular and wider selection available of BNC antennas.
> Prevent chassis connector wear or from coming loose due to antenna
> changes.
>
> Adapter features:
> Gold plated contacts with a teflon insulator.
> A low profile design with a rubber covering for a factory antenna look.
> The rubber base seals to the top of the radio with no spacers needed
> for moisture and dirt protection.
> The base also provides an excellent support for any length of antenna
> or application.
> No need to remove adapter once installed to make a quick and safe
> antenna change.
>
> Sizes to fit radio models:
> Yaesu: VX-5, VX-1, FT-50-R, VX-10, VX-150, VX-110, VXA-100, VXA-120
> Icom: IC-T90, IC-T8A, IC-T81A, IC-Q7A, IC-R2
> Kenwood: TH-D7, TH-G71, TH-F6A, TH-F7A
> Alinco: DJ-V5, DJ-X3, DJ-S40
> Standard: C508A, C510A
> Radio Shack: HTX-420, HTX-400, HTX-245, HTX-200
> Aor: AR-16
>
> Previewed in the May 2000 Issue of CQ Magazine, and the Nov. 2000
> Issue of QST Magazine.
>
> $11.95 + $1.50 S+H(One to unlimited)
> (Check or money order only in U.S.Funds)
> (Specify-radio-model)
>
> STEPHEN G.GULYAS
> 706 LALOR ST.
> TRENTON, N.J. 08610
> U.S.A.
>
> A photo of the adapter is available upon request.

>
> I welcome any questions or comments at my email:
> gulyas@earthlink.net
>
> Thanks for looking at my posting.
> S.G.G. KC2BHO 73's
>

1420. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 17:03:17 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <p%Uu9.2255$z5.1606895@newssvr28.news.prodigy.com>
Source record: 132559

Art was referring to an article I wrote for QST that was scheduled for November, but has been rescheduled for a later issue. I'll post the new date when I get it from ARRL. The article deals with remote control in general...my website has details, and also includes info about remote control of SteppIR antennas, and of my computer controlled minibeam project, which will be the subject of a future article. The link to my website is www.telepostinc.com/n8lp.html

--
Larry N8LP

<ehsjr@bellatlantic.net> wrote in message
news:3DBB428D.63DFAB90@bellatlantic.net...
>
>
> Art Unwin KB9MZ wrote:
> > Of course Q.S.T. would not change
> > but the link I refered to on steppir page is worth
> > a read even if there is no interest in the antenna
> > (which by the way I hear is selling in huge numbers)
> > Art
>
> Art,
>
> Could you post the link here? I'm not sure of
> what issue or article you are referring to -
> but the link would sure be of interest!
>
> Thanks!

1421. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 17:12:14 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210270912.44ac465d@posting.google.com>
Source record: 132560

CAM <Cecil.A.Moore@ieee.org> wrote in message news:<3DBB04F5.DADA972B@ieee.org>...
> Roy Lewallen wrote:
> >
> > CAM wrote:
> > > "Dr. William J. Schmidt, II" wrote:
> > >
> > > >>I had a dipole up 60 feet, and the vertical beats
> > > >>the pants off it.
> > >
> > > > How does a vertical monopole manage to obtain an omni-
> > > > directional gain of greater than 6 dBi?
> >
> > Oh, did he say that he was doing all his communicating at the azimuth
> > and elevation angles where each antenna's gain was maximum? I missed
> > that part. Must have been tricky to do. . .
>
> "Beats the pants off it" with no stated conditions means to me that
> it beats the dipole at all distances in all directions. I simply do
> not believe that.

He said pileups. How often do you hear U.S. stations pileup on other U.S. stations? Obviously he seems to mean dx. Model a dipole at 65 ft, and then model a vertical with 240 radials, and see which does better below 15 degrees. 6.5 dbi at 35 or so degrees won't do a heck of a lot of good when working dx that probably uses angles mainly below 15 degrees. Probably less than 10 degrees for far off stuff. No vertical is going to beat a dipole at 65 ft in all directions and distances. It's going to beat it by a healthy margin on long paths at the lower angles though. BTW, even though the modeling exercise will give the vertical the advantage below 15 degrees, I think the advantage is understated. I'm convinced most of the modeling programs understate the gains on many verticals. Elevated verticals really seem to lose out when modeled. I see many inconsistencies. Lets say a ground mount with 120 radials is appx equal to a ground plane at 1/2 wave up with 4 radials as far as ground losses. From all tests I've done, this seems to be true. In fact, many times the elevated antenna is the best, just being clear of the ground clutter. But model them and see the results. The GP will be slighted severely when modeled. "Houston, we have a problem"... If you use a mininec program to model a ground mount with 120 radials, you will see about 3.3 dbi or so. Model a GP at 1/2 wave with 4 radials and see what it gives you. You can use a mininec ground, or a nec4 high accuracy ground. Take your pick. The nec4 "should" be the most accurate on the elevated antenna I think. It would seem to be a pathetic antenna when modeled, but I'm about 90%

sure thats in error. The modeling programs are dropping the ball in that regard, and can't be trusted to give accurate results. That my opinion anyway...
Lets look at another problem...Model a GP at 1/4 wave, and then model one at 1/2 wave. Now, in the real world, I've rarely seen a GP at 1/2 wave lose to one at 1/4 wave in the real world, regardless of theoretical high angles. When you model the two, they give almost equal gains, with max gain at a high angle for the higher antenna. This doesn't seem quite right to me. You should see a bit larger increase in gain jumping up another 1/4 wave in height, I think. After all, this is the appx equal of converting a 60 radial ground mount to a 120 radial ground mount. You see the increase when modeling a ground mount, but you don't with the elevated. This increase in overall gain, due to lower ground losses, "should" give the lower "lesser" lobes on the 1/2 wave high antenna an increase enough to compete or even beat the 1/4 high antenna's low angle performance that it gets from it's "major" lobes. Or I think anyway...But it doesn't pan out in the models. Also, when I model my GP and my dipole, I have to "pump up" the ground cdx to see the same results on the model, as I did in the real world. Anyway, I think verticals are getting the short end of the stick on many of these modeling excercises and can't be totally trusted. If you model ground planes at very high heights in wavelength, the accuracy seems to improve to more what I would expect. IE: model a 2m 1/4 wave ground plane at 30 ft, and it seems pretty accurate to me. But it's multiple wavelengths up in the air. I think the programs are having problems dealing with elevated verticals under 1 wavelength in height above ground and giving them overly chinchy results. I may be wrong, but thats the way I see it. MK

1422. VLF Antena (small)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 17:53:56 UTC
From: Paulo <paulogoncalves@vizzavi.pt>
Message-ID: <aph97q$b7s$1@news.oninet.pt>
Source record: 132561

Iam looking for the construction details of a small antenna for my VLF reciever

1423. Mobile Antenna pics

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 19:01:20 UTC
From: SideBand <krNO8SPAMlr@cac.net>
Message-ID: <3DBC3800.7060905@cac.net>
Source record: 132562

In case anyone's interested...

http://www.csotbs.org/kr8lr/TruckPics/

--
73 de KR8LR, Chris

1424. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 19:25:36 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBC3DB0.32C8DBDB@ieee.org>
Source record: 132563

Mark Keith wrote:
>
> CAM <Cecil.A.Moore@ieee.org> wrote:

> > > > "Dr. William J. Schmidt, II" wrote:
> > > >
> > > >>I had a dipole up 60 feet, and the vertical beats
> > > >>the pants off it.
> > >
> > "Beats the pants off it" with no stated conditions means to me that
> > it beats the dipole at all distances in all directions. I simply do
> > not believe that.
>
> He said pileups.

Hi Mark, The sentence that caught my eye was the one quoted above.
I wasn't aware he was talking about *DX* pileups as he didn't mention
"DX" and did mention "local guys". I suspect there would be no contest
in a pileup with other stations at 500 mi. on 40m in the direction of
the dipole's broadside radiation.

One other nitpick. He said his 35 ft. monopole was "all-band". No
way will a 35 ft. monopole beat a dipole on 10m. The vertical has
a maximum gain of 3.8 dBi at 35 deg TOA. My 80m dipole has 10.8 dBi
maximum gain on 10m with a TOA of 12 deg, 7dB better on the gain and
23 degrees better on the take off angle for DX.
--
cheers, CAM http://www.qsl.net/w5dxp

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1425. Re: Suggested Content for www.n1ir.com (73 to All, Chip N1IR)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 19:27:25 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DBC3E1C.39F14A16@cwis.net>
Source record: 132564

"W.G Ewald",
And your point is??
'Doc

1426. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 19:32:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urofqjohegrld4@corp.supernews.com>
Source record: 132565

You're making the common mistake of assuming that a transmitter having an output impedance of R ohms has the same internal dissipation as a Thevenin source with R ohms impedance. Transmitters don't contain resistors, and the output impedance isn't determined by one. So it's entirely possible for a transmitter to have a 50 ohm output impedance and be 80% efficient when driving a 50 ohm load.

I'm not attempting to make the argument that transmitter output impedances are necessarily 50 ohms. But I am pointing out that a number of credible measurements have been made on commercial amplifiers which show them to be close to this value when adjusted for rated output power.

And I'm talking here about output impedance, not load impedance.

Roy Lewallen, W7EL

CAM wrote:
> Tarmo Tammaru wrote:
>
>>I think a transmitter output impedance being in the baallpark of 50 ohms is
>>a coincidence.
>
>
> I think I would rather have a generator whose internal impedance is a small
> fraction of the load impedance. The efficiency of a ham transmitter with
> a 0.5 ohm internal impedance would be 99% into a 50 ohm load. :-)

1427. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 19:40:23 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <98foruc00tl1trpbus38lct85o424omkg2@4ax.com>
Source record: 132566

On Sun, 27 Oct 2002 09:27:06 -0600, CAM <Cecil.A.Moore@ieee.org>
wrote:

>a ham transmitter with
>a 0.5 ohm internal impedance

Hi Cecil,

Then you need only tap the transistor (not FET) stage BEFORE the bandswitched Low Pass Filter in the rig and BEFORE the impedance boosting transformer (often built with a binocular style feed).

Those bandswitched filters are built for 50 Ohm conditions (in and out) and the transformer is a step up from the several Ohms presented by the class AB stage driving it. Any casual review of the schematic of your rig, and standard design math will reveal this potential low Z source is easily available.

Useful is another matter. For in that combination of low pass filter and drive transformer are considerable benefit in meeting RFI requirements. That low Z source is chock full of severely distorted sine waves (if one could describe them as such). Being in a balanced design (the class AB bridge style), reduces a lot of this distortion through the combining effect of the transformer. The filter that follows does considerable work to reject the fast edges and backfill them into roughly sinusoidal shape.

You could, of course, choose to build a step-down transformer (to achieve your half Ohm specification, but you will still need a Low Pass Filter with a characteristic Z of that same 0.5 Ohm. With those two steps you will have the source you describe. Myself, I would skip the step-down and work on the amp to boost its distortion figure so I could skip the filter as well. A 2 to 5 Ohm source would be as effective in your characterization of efficiency. However, as nothing will have actually changed with the original circuitry driving any of these passive output channels - efficiency will remain at a pretty bland 45% or so.

73's
Richard Clark, KB7QHC

1428. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 19:40:31 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBC412F.20FF7560@ieee.org>
Source record: 132567

Mark Keith wrote:
>
> CAM <Cecil.A.Moore@ieee.org> wrote in message news:<3DBB04F5.DADA972B@ieee.org>...

> > > > "Dr. William J. Schmidt, II" wrote:
> > > >
> > > >>I had a dipole up 60 feet, and the vertical beats
> > > >>the pants off it.
> > > >
> > > "Beats the pants off it" with no stated conditions means to me that
> > > it beats the dipole at all distances in all directions. I simply do
> > > not believe that.
> >
> > He said pileups.

As I remember, he didn't mention DX but did mention "local guys". Of
course, a well-designed monopole will beat a dipole at long distances.
But in the 500 mile range, I would expect the dipole to be better at
least in the dipole's favored directions.

One more nitpick. He said his 35 ft monopole was "all-band". I can
guarantee that a 10m dipole will beat a 35 ft monopole used on 10m
virtually 100% of the time.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1429. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 20:35:55 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <lghoruk3u2hd5co85dj9i2i1ujmq5grjbd@4ax.com>
Source record: 132568

On Sun, 27 Oct 2002 19:40:23 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

>Then you need only tap the transistor (not FET) stage BEFORE the
>bandswitched Low Pass Filter in the rig and BEFORE the impedance
>boosting transformer (often built with a binocular style feed).
>

I should add that you also have an option of going for a balanced
output from the get-go! That binocular transformer has a balanced
output UNTIL one side is tied to the common ground shared by the Low
Pass Filter it feeds.

Just unsolder that connection and instead route the transformer output
through a 50 Ohm balanced Low Pass Filter to your balanced 50 line.
Feel free to replace any occurrence of the number 50 with your own
characteristic Z. Feel free, that is, within the ability of an RF
transformer to efficiently achieve that ratio.

Hams used to do this - especially when these experiments so easily
reduced to ratios.

There's the curse of hamdom. The store-bought rig, and preserving its
"re-sale value." My shack is stocked with tough-dogs from the
boneyard and all rigs now meet or exceed their manufacturers'
performance specifications. (Caution, stunts performed by an expert,
amateurs should not attempt this at home.)

73's
Richard Clark, KB7QHC

1430. Can an ICOM-756 Pro2 be modified to TX outside ham bands?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 20:38:10 UTC
From: Kanberi <pti@capnet.com>
Message-ID: <3DBC4EB1.53AB3658@capnet.com>
Source record: 132370

Which S/N should be stayed away from?

1431. Re: Collins Radio Antenna Compendium

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 21:01:03 UTC
From: fractenna@aol.com
Message-ID: <20021027160103.07809.00000929@mb-mn.aol.com>
Source record: 132369

I'd love to give this book a good home if a reasonable price is suggested.

Drop me e-mail if you have a copy you want to translate to cash.

73,
Chip N1IR

1432. Re: Mobile Antenna pics

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 21:18:26 UTC
From: garigue <garigue@attbi.com>
Message-ID: <BKYu9.131369$%d2.48849@sccrnsc01>
Source record: 132371

Neat Chris ... not how would that work on my Miata??
73 Tom KI3R Port Vue nr Pittsburgh
"SideBand" <krNO8SPAMlr@cac.net> wrote in message
news:3DBC3800.7060905@cac.net...
> In case anyone's interested...
>
> http://www.csotbs.org/kr8lr/TruckPics/
>
> --
> 73 de KR8LR, Chris
>

1433. Re: Mobile Antenna pics

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 21:21:56 UTC
From: SideBand <krNO8SPAMlr@cac.net>
Message-ID: <3DBC58F4.4030401@cac.net>
Source record: 132372

Heh. Unless you want to put long PVC pipes on all four corners, I'm not sure you could do it on a miata. ::Grin::

But it shows a decently efficient antenna setup for a mobile 18-wheeler without having to resort to monobanders, screwdrivers, or amplifiers.

73 de KR8LR, Chris

garigue wrote:

> Neat Chris ... not how would that work on my Miata??
> 73 Tom KI3R Port Vue nr Pittsburgh
> "SideBand" <krNO8SPAMlr@cac.net> wrote in message
> news:3DBC3800.7060905@cac.net...
>
>>In case anyone's interested...
>>
>>http://www.csotbs.org/kr8lr/TruckPics/
>>
>>--
>>73 de KR8LR, Chris
>>
>>
>
>

--
73 de KR8LR, Chris

1434. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 21:46:33 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <F6mdnXU6ENQYwyGgXTWc2Q@comcast.com>
Source record: 132373

Richard,

Assuming you have a 13.8 V power supply, the RF voltage at the collector of the transistor is about 9 VRMS. If you want 80W out, you have to connect 1 ohm across it. That's what the transformer does.

Tam/WB2TT
"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:98foruc00tl1trpbus38lct85o424omkg2@4ax.com...
> On Sun, 27 Oct 2002 09:27:06 -0600, CAM <Cecil.A.Moore@ieee.org>
> wrote:
>
> >a ham transmitter with
> >a 0.5 ohm internal impedance
>
>
> Hi Cecil,
>
> Then you need only tap the transistor (not FET) stage BEFORE the
> bandswitched Low Pass Filter in the rig and BEFORE the impedance
> boosting transformer (often built with a binocular style feed).
>
> Those bandswitched filters are built for 50 Ohm conditions (in and
> out) and the transformer is a step up from the several Ohms presented
> by the class AB stage driving it. Any casual review of the schematic
> of your rig, and standard design math will reveal this potential low Z
> source is easily available.
>
> Useful is another matter. For in that combination of low pass filter
> and drive transformer are considerable benefit in meeting RFI
> requirements. That low Z source is chock full of severely distorted
> sine waves (if one could describe them as such). Being in a balanced
> design (the class AB bridge style), reduces a lot of this distortion
> through the combining effect of the transformer. The filter that
> follows does considerable work to reject the fast edges and backfill
> them into roughly sinusoidal shape.
>
> You could, of course, choose to build a step-down transformer (to
> achieve your half Ohm specification, but you will still need a Low
> Pass Filter with a characteristic Z of that same 0.5 Ohm. With those
> two steps you will have the source you describe. Myself, I would skip
> the step-down and work on the amp to boost its distortion figure so I
> could skip the filter as well. A 2 to 5 Ohm source would be as
> effective in your characterization of efficiency. However, as nothing
> will have actually changed with the original circuitry driving any of

> these passive output channels - efficiency will remain at a pretty
> bland 45% or so.
>
> 73's
> Richard Clark, KB7QHC

1435. Mobile 144/440 Favorites?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 21:47:00 UTC
From: Zasz <prodroom@hotmail.com>
Message-ID: <o9Zu9.8761$Fj6.789768@newsread1.prod.itd.earthlink.net>
Source record: 132374

Suggestions wanted for a 144/440 to go on a Ford Explorer, antenna will be mounted to the roof rack with appropriate mount.

Thanks.

1436. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 21:56:52 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <ZZSdnRJsCeRt_SGgXTWcqA@comcast.com>
Source record: 132375

Roy,

I know you can do it. Worked with a guy who got a patent on a "bridge stabilized amplifier", which could be adjusted to have an arbitrary output impedance without adding loss. I just don't see that in any ham rig. What you do see is the sum of losses in the transistor, output circuitry, and filters.

Tam/WB2TT
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:urofqjohegrld4@corp.supernews.com...
> You're making the common mistake of assuming that a transmitter having
> an output impedance of R ohms has the same internal dissipation as a
> Thevenin source with R ohms impedance. Transmitters don't contain
> resistors, and the output impedance isn't determined by one. So it's
> entirely possible for a transmitter to have a 50 ohm output impedance
> and be 80% efficient when driving a 50 ohm load.
>
> I'm not attempting to make the argument that transmitter output
> impedances are necessarily 50 ohms. But I am pointing out that a number
> of credible measurements have been made on commercial amplifiers which
> show them to be close to this value when adjusted for rated output power.
>
> And I'm talking here about output impedance, not load impedance.
>
> Roy Lewallen, W7EL

1437. Re: Free CB Crystal Mixing Charts

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 22:27:57 UTC
From: Deos <lineoffiretoday@yahoo.com>
Message-ID: <apj7e5$8eh$4@nic.grnet.gr>
Source record: 132386
Cross-posted to:
rec.radio.cb,rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.boatanchors,rec.radio.amateur.antenna

```
do i smell spam?

--
http://deosiereas.virtualave.net
"Aaron H. Voobner" <aaronharoldvoobner@yahoo.com> wrote in message
news:194387a3.0210171838.1dfed95c@posting.google.com...
> Hey Lou, since your charts that allow "for modification to 10M or
> other freqs." are obviously intended for use by licensed hams, you
> might get more business if you posted this in ham newsgroups. Doncha
> think?
>
> -A
>
> Lou Franklin <lou@cbcintl.com> wrote in message
news:<kepupughq0glhbpkil8lhah6af2fg4kudk@4ax.com>...
> > We've now added all our crystal charts for free download/printing
> > (PDF) on our site. These 32 charts cover about 95% of all American
> > mobile & base CB models, and show exactly which crystal(s) affects
> > which mode or channel. Very useful for troubleshooting "dead
> > channels" symptom, or for modification to 10M or other freqs.
> >
> > Check 'em out at: www.cbcintl.com/xtals/xtals.htm
> >
> > We specialize in CB books, plans, kits, and high-performance CB
> > accessories. Please visit our Web site to see all those "goodies" you
> > just can't find anywhere else!
> >
> > www.cbcintl.com
> >
> > You can also download our complete CB catalog, or just the Order Form
> > from the home page. We've also got a new Email Order Form (for
> > VISA/MC) if you're in a hurry.
> >
> > * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
> > In case you didn't already know...
> >
> > Who are we? Since 1976 we've been the leading supplier of books,
> > plans, and kits just for CB radio. Do-it-yourself repairs and
> > modifications, 10-Meter Ham conversions, amplifiers, FM converters,
> > bleedover filters, adding new frequencies, etc. Secrets of how to
> > increase your power, range, and privacy.
> >
> > For product questions or additional details
```

> > on what we offer, please email us directly at:
> >
> > info@cbcintl.com
> >
> >
> > 73,
> > Lou Franklin--President
> > K6NH / "SuperSparks"
> > **********
> > CBC International
> > P.O. Box 30655
> > Tucson AZ 85751 USA
> >
> > TOLL-FREE TEL/FAX:
> > 888-I-FIX-CBs (1-888-434-9227)
> > Local: (520) 298-7980
> >
> > www.cbcintl.com
> >
> > Email: info@cbcintl.com

1438. Re: October Q.S.T.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 23:19:29 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DBC7484.6FE239B2@bellatlantic.net>
Source record: 132376

Larry Phipps wrote:
>
> Art was referring to an article I wrote for QST that was scheduled for
> November, but has been rescheduled for a later issue. I'll post the new
> date when I get it from ARRL. The article deals with remote control in
> general...my website has details, and also includes info about remote
> control of SteppIR antennas, and of my computer controlled minibeam project,
> which will be the subject of a future article. The link to my website is
> www.telepostinc.com/n8lp.html

WOW! Great website! Thanks!!
>
> --
> Larry N8LP
>
> <ehsjr@bellatlantic.net> wrote in message
> news:3DBB428D.63DFAB90@bellatlantic.net...
> >
> >
> > Art Unwin KB9MZ wrote:
> > > Of course Q.S.T. would not change
> > > but the link I refered to on steppir page is worth
> > > a read even if there is no interest in the antenna
> > > (which by the way I hear is selling in huge numbers)
> > > Art
> >
> > Art,
> >
> > Could you post the link here? I'm not sure of
> > what issue or article you are referring to -
> > but the link would sure be of interest!
> >
> > Thanks!

1439. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 23:23:49 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBC7585.A88ACDE4@ieee.org>
Source record: 132377

Roy Lewallen wrote:
>
> You're making the common mistake of assuming that a transmitter having
> an output impedance of R ohms has the same internal dissipation as a
> Thevenin source with R ohms impedance.

Please note the smiley face, Roy. It was a joke.

> CAM wrote:
> > I think I would rather have a generator whose internal impedance is a small
> > fraction of the load impedance. The efficiency of a ham transmitter with
> > a 0.5 ohm internal impedance would be 99% into a 50 ohm load. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1440. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 23:25:31 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBC75EB.AD56660F@ieee.org>
Source record: 132378

Richard Clark wrote:
>
> CAM <Cecil.A.Moore@ieee.org> wrote:
>
> >a ham transmitter with a 0.5 ohm internal impedance
>
> Useful is another matter.

Richard, you deleted my smiley face. Shame on you!
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1441. MFJ Antenna Bridge

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-27 23:59:28 UTC
From: wb3egx@aol.com
Message-ID: <20021027185928.17702.00000057@mb-fd.aol.com>
Source record: 132379

Would any of you happen to have an operating manual for the MFJ-204B Antenna Bridge. I picked one up at a Hamfest but with no instructions. A scanned copy would be great. MFJ might send one in 4 weeks to life. Thanks & 73's.....Doug / WB3EGX

1442. Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 02:55:21 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210271855.3f0d3f13@posting.google.com>
Source record: 132380

When using 'Gain' as a comparison term
many get mixed up with 'over ground',
'free space' e.t.c that lead to a non
real comparison as compared to a
particular radiator length at real height of say 25 metres
over a perfect ground. The reason I come to
re-examine 'gain' as we know it is because it ignors
turning radius or preferbly, gain per unit length.
For instance, a tribander for ten metres is
said to be roughly equal to a half wave element (dipole)
yet the tribander is using twice the turning radius,
because it has a part that is not radiating!
A Zepp which measures some where inbetween has more
gain than either of them and so is more efficient in
terms of unit length to either of them .
Even the latest antenna on the scene, the steppir,
states 'compared to a dipole' yet its turning radius
is DOUBLE that to which it is compared (ten metres) .
To call them "the same" is patently ridiculous
because the multibander is using a physical length
of twice the 1/2 wave dipole, which is so much more
inefficient per unit length.
As amateurs where most are constrained by antenna radius,
would it not be more reasonable to refer to efficiency
per 'unit length' where as more bands are created the more
the movement to multi frequency antennas?
Think about it, we think of gain as an order of merit
so the tribander with double the element length of a 1/2 wave
dipole has the SAME 'order of merit".
We complain of those who misuse 'gain' figures
as an order of merit where the average amateur is
more interested in max gain per turning radius (unit length)
over real ground.
Is it time to put our own house in order ?

Art

1443. Re: A Challenge

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 06:44:09 UTC
From: Wayne <w>
Message-ID: <urpn5pn2ha2ndc@corp.supernews.com>
Source record: 132381

While a bit late, here's one possible antenna.
A 40 meter dipole, tuned for the center of the portion of the band you will be able to work, and an antenna tuner to use it on other bands.
I use a 40/20 dipole myself, and a tuner to use it on 80, and other bands.

I can, however, access my antenna, with a ladder, as I live in a mobile home.
The antenna is a 40 meter dipole, with an added set of wires for 20 meters, thus 40/20 dipole.
With the use of a tuner, I have tuned it on 80, 17, 15 and 10 meters.
I bypass the tuner on 40 and 20.
I have worked Russia (St. Petersburg) on 20 meters, from California, so antenna does work reasonably well.
With the higher elevation you'd have on the roof, you should do quite well.
Mine is less than 10 meters from the ground at the center, and ends droop from that point.

Good luck on your test(s)
Wayne WA2YNE
Hughson, CA, USA CM97no

"John Davies " <couperin@singnet.com.sg> wrote in message news:ajaf5k$9sc$1@reader01.singnet.com.sg...
> Hello,
>
> I am new here and hope someone can help. I will hopefully be getting my 9V1
> license before the end of the year (a full license for the HF bands). I am
> not familiar with amateur antenna systems in particular although I do
> understand general antenna theory. The problem in Singapore is that most of
> us live in apartments, myself included. I am on the 2nd floor of a 4-floor
> block. I have considered end-fed longwires via an ATU but I do not think the
> condominium management would approve . What they are really after is
> something out of sight. The roof may be an option. It is flat. I could mount
> a vertical with ground-plane radials no problem. The management would
> probably balk at anything higher than 15 feet, however.
> An ATU could be mounted a the base of the antenna and weatherproofed. With
> such a small space available to me, what do you suggest as an off-the shelf
> antenna ? To make things worse, the roof access would be closed off to me
> after installation so I could not use any manual traps or such like. I would

> like to operate on all hf bands but I do realise that 80m may be
impossible.
> Looking forward to any advice.
>
>
>
>

1444. Re: VLF Antena (small)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 06:46:21 UTC
From: richardharrison@webtv.net
Message-ID: <4923-3DBCDD3D-856@storefull-2317.public.lawson.webtv.net>
Source record: 132382

Paulo Goncalves wrote:
"I am looking for construction details of a small antenna for my VLF receiver."

Muito bem.

Not-so-small shielded loops may work better.

Search on "VLF loop". My search resulted in 4859 "hits".

Among items you will encounter is an "Octoloop" by William E. Payne, N4YWK. There are so many items other than the Octoloop, that there should be something suitable for anyone`s requirements.

Best regards, Richard Harrison, KB5WZI

1445. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 07:25:36 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <igppru8vavdm27uokksg0jpej5t1gqaaqm@4ax.com>
Source record: 132383

On 27 Oct 2002 18:55:21 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

> Is it time to put our own house in order ?
>
>Art

Hmmm Art,

I dunno. Does a three bedroom rambler have the SAME 'order of merit"
as a split entry with daylight basement and multi-closet efficiency?

73's
Richard Clark, KB7QHC

1446. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 08:44:35 UTC
From: Jan Lustrup <lustrup@start.no>
Message-ID: <apitdj$175$1@troll.powertech.no>
Source record: 132384

Good point!!!

73's de LA3EQ

--
Jan Henning Holmedal Lustrup
Radiograf h&#65533;yskolen
University College of Bergen
Norway

Lingua speciem involutam praebet, sed sat cito eam comprehendes
"Richard Clark" <kb7qhc@attbi.com> skrev i melding
news:igppru8vavdm27uokksg0jpej5t1gqaaqm@4ax.com...
> On 27 Oct 2002 18:55:21 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
> wrote:
>
> > Is it time to put our own house in order ?
> >
> >Art
>
> Hmmm Art,
>
> I dunno. Does a three bedroom rambler have the SAME 'order of merit"
> as a split entry with daylight basement and multi-closet efficiency?
>
> 73's
> Richard Clark, KB7QHC

1447. Re: A Challenge

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 09:34:15 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3DBD0497.30D15D41@oda.com.au>
Source record: 132385

Wayne wrote:
>
> While a bit late, here's one possible antenna.
> A 40 meter dipole, tuned for the center of the portion of the band you will
> be able to work, and an antenna tuner to use it on other bands.
> I use a 40/20 dipole myself, and a tuner to use it on 80, and other bands.

I have a similar antenna (without the 20m wires) - a low 40m dipole with the ends lower than the centre.

The modeled driving point impedance is 8-j890 ohms at 3.7MHz. It is fed by 17m of RG6, which has a loss of 0.21dB at 3.6MHz. There is about 15dB loss on the feedline in the mismatched state, impedance seen at the ATU end of the feedline is 1.9+j7.9 ohms. A T match tuner should transform this to 50 ohms with a loss of around 4dB. Modeled antenna gain at 3.6MHz is about 3dB lower at 60deg elevation compared to performance at 7.1MHz.

So, all up, models indicate it is about 22db worse in performance than at 7.1MHz.

A listening test verifies poor performance.

Owen

1448. I am looking for job (antenna eng.)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 11:44:51 UTC
From: mefis <stare_wilno@poczta.onet.pl>
Message-ID: <apj82b$2a0$1@korweta.task.gda.pl>
Source record: 132387

details
www.mateuszmazur.republika.pl
regards
mefis

1449. Re: Cushcraft R5 toroid info?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 13:17:26 UTC
From: derswede@aol.comspam.com
Message-ID: <20021028081726.00829.00000028@mb-ba.aol.com>
Source record: 132389

Thanks to all for the help, think the R5 will make a full recovery <<grin>>.

Special thanks to Rick K1BQT.

Cheers!
Andrew

1450. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 13:18:28 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210280518.735023ff@posting.google.com>
Source record: 132388

Richard Clark <kb7qhc@attbi.com> wrote in message
news:<igppru8vavdm27uokksg0jpej5t1gqaaqm@4ax.com>...
> On 27 Oct 2002 18:55:21 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
> wrote:
>
> > Is it time to put our own house in order ?
> >
> >Art
>
> Hmmm Art,
>
> I dunno. Does a three bedroom rambler have the SAME 'order of merit"
> as a split entry with daylight basement and multi-closet efficiency?
>
> 73's
> Richard Clark, KB7QHC

Not sure what you are driving at.
The question is, shouldn't the tribander
be treated differently than a half wave dipole
beause it is much longer but only produces the gain
of a shorter element? Appears to me that there ia
a large difference in efficiency per unit length.
Art

1451. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 13:35:32 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210280535.2786935a@posting.google.com>
Source record: 132390

aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message
news:<85ed38d.0210271855.3f0d3f13@posting.google.com>...
> When using 'Gain' as a comparison term
> many get mixed up with 'over ground',
> 'free space' e.t.c that lead to a non
> real comparison as compared to a
> particular radiator length at real height of say 25 metres
> over a perfect ground. The reason I come to
> re-examine 'gain' as we know it is because it ignors
> turning radius or preferbly, gain per unit length.
> For instance, a tribander for ten metres is

Do you mean 'tribander' or 'three element monoband yagi'?

> said to be roughly equal to a half wave element (dipole)
> yet the tribander is using twice the turning radius,
> because it has a part that is not radiating!

What do you mean by 'part that is not radiating'? The boom?

'Turning radius' is the amount of horizontal distance you would need
to rotate the antenna on a rotator. It has little to do with gain.

> A Zepp which measures some where inbetween has more
> gain than either of them and so is more efficient in
> terms of unit length to either of them .

Maybe so, but the 3 element yagi has a much better radiation pattern
than either.

> Even the latest antenna on the scene, the steppir,
> states 'compared to a dipole' yet its turning radius
> is DOUBLE that to which it is compared (ten metres) .

When an antenna is 'compared to a dipole' this does not mean that it
is the same as a dipole. It means that the dipole is used as a
reference, and the antenna being discussed is N times better than the
dipole.

> To call them "the same" is patently ridiculous
> because the multibander is using a physical length
> of twice the 1/2 wave dipole, which is so much more
> inefficient per unit length.

Electrical length is more important than physical length.

> As amateurs where most are constrained by antenna radius,
> would it not be more reasonable to refer to efficiency

> per 'unit length' where as more bands are created the more
> the movement to multi frequency antennas?

Efficieny has to do with the resistive loss in the antenna.

> Think about it, we think of gain as an order of merit
> so the tribander with double the element length of a 1/2 wave
> dipole has the SAME 'order of merit".

If this was true, then why bother putting up a 'bigger' antenna?
Everyone would be doing moonbounce with dipoles! Again, the dipole is
used as a reference, which is not saying that it is the same as the
tribander.

> We complain of those who misuse 'gain' figures
> as an order of merit where the average amateur is
> more interested in max gain per turning radius (unit length)
> over real ground.
> Is it time to put our own house in order ?

...And maybe take a class in Antenna Theory first?

Jim
N8EE

1452. Re: Collins Radio Antenna Compendium

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 13:44:43 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210280544.73f05ac5@posting.google.com>
Source record: 132391

fractenna@aol.com (Fractenna) wrote in message
news:<20021027160103.07809.00000929@mb-mn.aol.com>...
> I'd love to give this book a good home if a reasonable price is suggested.
>
> Drop me e-mail if you have a copy you want to translate to cash.
>
> 73,
> Chip N1IR

I looked thru my book of Collins named 'The radio amateur's
handbook' (red cover by the way)Unfortunately it does not have
the actual material that you were reffering too.
Art

1453. Re: Collins Radio Antenna Compendium

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 14:49:03 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <Lk29PfR7UKMGqgVRU+YTDAVsO9=j@4ax.com>
Source record: 132393

"Harold E. Johnson" <W4ZCB@mchsi.com> wrote:

>Long ago, long before the League used the term, Collins had a small spiral
>bound book with a blue cover and it was named the Antenna Compendium. I had
>a copy, but donated it to a local Ham library which has since become
>non-local.
>
>The book contained a section on electrically short verticals and showed a
>nomograph regarding radials. To my recollection, it indicated that for a
>given length of wire, you were better off with a few long radials than many
>short ones.

That's just the opposite of what I've read. You might go to the Butternut site
at

http://www.bencher.com/pdf_download.html#tech_notes

and click on "tech notes" and look at some of their papers on radials. It'd be
interesting if Mr. Collins went against "conventional wisdom" on radials.

Bob
k5qwg

>I can't find that replicated in any form in Jasik, would someone
>out there by any chance have a copy of the Collins book and could refresh my
>decaying memory? I'd be happy to reimburse any costs to duplicate those 2-3
>pages or a .PDF would be super.
>
>W4ZCB
>

1454. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 15:24:02 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <mEcv9.2433$z5.1763715@newssvr28.news.prodigy.com>
Source record: 132392

I think what Art is driving at is that with a trapped dipole, only part of the physical element is radiating (assuming a very good trap) om 10m. Likewise, the SteppIR fiberglas elements are always 36' long, even when using 6 meters, because the copper tape is varying in length inside. He is arguing for using the whole element on 15 & 10m...ie., .75 wavelength on 15m & 1 wavelength on 10m to get some additional collinear gain.

Not a bad sentiment, but difficult to achieve in a multiband, multi-element array.

I guess that would be an argument about the efficient use of space.

--
Larry N8LP

"JLB" <jim.bolinger@lintek.aeroflex.com> wrote in message
news:8d5ec8a2.0210280535.2786935a@posting.google.com...
> aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message
news:<85ed38d.0210271855.3f0d3f13@posting.google.com>...
> > When using 'Gain' as a comparison term
> > many get mixed up with 'over ground',
> > 'free space' e.t.c that lead to a non
> > real comparison as compared to a
> > particular radiator length at real height of say 25 metres
> > over a perfect ground. The reason I come to
> > re-examine 'gain' as we know it is because it ignors
> > turning radius or preferbly, gain per unit length.
> > For instance, a tribander for ten metres is
>
> Do you mean 'tribander' or 'three element monoband yagi'?
>
> > said to be roughly equal to a half wave element (dipole)
> > yet the tribander is using twice the turning radius,
> > because it has a part that is not radiating!
>
>
> What do you mean by 'part that is not radiating'? The boom?
>
> 'Turning radius' is the amount of horizontal distance you would need
> to rotate the antenna on a rotator. It has little to do with gain.
>
> > A Zepp which measures some where inbetween has more
> > gain than either of them and so is more efficient in
> > terms of unit length to either of them .
>

> Maybe so, but the 3 element yagi has a much better radiation pattern
> than either.
>
> > Even the latest antenna on the scene, the steppir,
> > states 'compared to a dipole' yet its turning radius
> > is DOUBLE that to which it is compared (ten metres) .
>
> When an antenna is 'compared to a dipole' this does not mean that it
> is the same as a dipole. It means that the dipole is used as a
> reference, and the antenna being discussed is N times better than the
> dipole.
>
>
> > To call them "the same" is patently ridiculous
> > because the multibander is using a physical length
> > of twice the 1/2 wave dipole, which is so much more
> > inefficient per unit length.
>
> Electrical length is more important than physical length.
>
> > As amateurs where most are constrained by antenna radius,
> > would it not be more reasonable to refer to efficiency
> > per 'unit length' where as more bands are created the more
> > the movement to multi frequency antennas?
>
> Efficieny has to do with the resistive loss in the antenna.
>
>
> > Think about it, we think of gain as an order of merit
> > so the tribander with double the element length of a 1/2 wave
> > dipole has the SAME 'order of merit".
>
> If this was true, then why bother putting up a 'bigger' antenna?
> Everyone would be doing moonbounce with dipoles! Again, the dipole is
> used as a reference, which is not saying that it is the same as the
> tribander.
>
> > We complain of those who misuse 'gain' figures
> > as an order of merit where the average amateur is
> > more interested in max gain per turning radius (unit length)
> > over real ground.
> > Is it time to put our own house in order ?
>
> ...And maybe take a class in Antenna Theory first?
>
>
> Jim
> N8EE

1455. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 15:35:33 UTC
From: fractenna@aol.com
Message-ID: <20021028103533.25947.00001312@mb-fc.aol.com>
Source record: 132394

>
>I think what Art is driving at is that with a trapped dipole, only part of
>the physical element is radiating (assuming a very good trap) om 10m.
>Likewise, the SteppIR fiberglas elements are always 36' long, even when
>using 6 meters, because the copper tape is varying in length inside. He is
>arguing for using the whole element on 15 & 10m...ie., .75 wavelength on 15m
>& 1 wavelength on 10m to get some additional collinear gain.
>
>Not a bad sentiment, but difficult to achieve in a multiband, multi-element
>array.
>
>I guess that would be an argument about the efficient use of space.
>
> --
>Larry N8LP
>
>
>"JLB" <jim.bolinger@lintek.aeroflex.com> wrote in message
>news:8d5ec8a2.0210280535.2786935a@posting.google.com...
>> aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message
>news:<85ed38d.0210271855.3f0d3f13@posting.google.com>...
>> > When using 'Gain' as a comparison term
>> > many get mixed up with 'over ground',
>> > 'free space' e.t.c that lead to a non
>> > real comparison as compared to a
>> > particular radiator length at real height of say 25 metres
>> > over a perfect ground. The reason I come to
>> > re-examine 'gain' as we know it is because it ignors
>> > turning radius or preferbly, gain per unit length.
>> > For instance, a tribander for ten metres is
>>
>> Do you mean 'tribander' or 'three element monoband yagi'?
>>
>> > said to be roughly equal to a half wave element (dipole)
>> > yet the tribander is using twice the turning radius,
>> > because it has a part that is not radiating!
>>
>>
>> What do you mean by 'part that is not radiating'? The boom?
>>
>> 'Turning radius' is the amount of horizontal distance you would need
>> to rotate the antenna on a rotator. It has little to do with gain.
>>
>> > A Zepp which measures some where inbetween has more

>> > gain than either of them and so is more efficient in
>> > terms of unit length to either of them .
>>
>> Maybe so, but the 3 element yagi has a much better radiation pattern
>> than either.
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>> > Even the latest antenna on the scene, the steppir,
>> > states 'compared to a dipole' yet its turning radius
>> > is DOUBLE that to which it is compared (ten metres) .
>>
>> When an antenna is 'compared to a dipole' this does not mean that it
>> is the same as a dipole. It means that the dipole is used as a
>> reference, and the antenna being discussed is N times better than the
>> dipole.
>>
>

I don't get it.

The Steppir beam is just a mechanically controlled,tape measure Yagi-Uda. The element spacings are locked. It is very challenging to get those spacings to yield a co-linear element Yagi-Uda array with useful azimuthal pattern, if you let the element lengths get longer than an electrical half wave. You will get all kindsa lobes and degrade the end fire pattern substantially.

Like to see it if done.

73,
Chip N1IR

1456. Re: Full size 1/4 wave vert

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 16:16:51 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210280816.5241e0c7@posting.google.com>
Source record: 132395

CAM <Cecil.A.Moore@ieee.org> wrote in message
>
> As I remember, he didn't mention DX but did mention "local guys". Of
> course, a well-designed monopole will beat a dipole at long distances.
> But in the 500 mile range, I would expect the dipole to be better at
> least in the dipole's favored directions.

Sure. It would be. In my case, rarely did the vertical win under 800
miles or so. There were some exceptions, but pretty rare.
>
> One more nitpick. He said his 35 ft monopole was "all-band". I can
> guarantee that a 10m dipole will beat a 35 ft monopole used on 10m
> virtually 100% of the time.

Sure, a 35 ft vertical is way too long on 10m to avoid high angles of
radiation.
But when I hung out on 10m a lot, my preferred ant was a 5/8 ground
plane. I used to be on 10m a lot, and rarely did I use dipoles on that
band. They were ok, as long as the path was sky wave, but many of the
times I was working local way across town. But even on skywave across
the country the 5/8 ant usually beat dipoles. I compared them quite a
few times. I had the same results on 17m. The 40m ground plane I used
also doubled as a 5/8 on 17m. None of my wire antennas could beat it
on that band either, and it didn't matter what the path was. And some
of my wire antennas had gain in certain directions. Even in those
directions, they couldn't beat the 5/8 antenna. BTW, that antenna on
17m used 3/4 wave radials, not 1/4 wave. On that band, the antenna was
about 3/4 wave up in the air. So I think that helped matters some.
Same thing on 10m. I didn't use 1/4 wave radials there either. In
that case, the 10m 5/8 doubled as a 1/4 wave GP on 30m. Anyway, for
10m, I prefer a good ground plane anyday over a dipole. Many people
used dipoles on 10 when we hung out there. They were usually below
most of the people running decent verticals. Of course, almost nobody
ever used a ground mount vertical on 10m. They were all elevated. The
higher, the better. Most ran either 1/2 waves, or 5/8's. If you wanted
a BIG signal, you used a beam. MK

1457. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 16:20:01 UTC
From: Robert Spooner <rls19@psu.edu>
Message-ID: <3DBD63B1.5080004@psu.edu>
Source record: 132396

Ken,

If you can get into your transceiver and reduce the voltage to just the output amp you may be able to reduce the power from 3 watts to 2 watts without affecting the VFO operation as when reducing the voltage to all the circuitry. You'll have to check to make sure you aren't overdriving the output amp under those conditions. Another possibility is adding some inverse feedback to the power amp to reduce the gain. Using an attenuator as suggested by others will get the job done, but at the price of wasting power.

73,
Bob AD3K

Ken wrote:
> I am building a QRP HF amp that will put out 40 watts when driven with
> 2 watts. Its output power (and power consumption) varies linearly
> ...
--
Robert L. Spooner
Registered Professional Engineer
Associate Research Engineer
Intelligent Control Systems Department

Applied Research Laboratory Phone: (814) 863-4120
The Pennsylvania State University FAX: (814) 863-7841
P. O. Box 30
State College, PA 16804-0030 rls19@psu.edu

1458. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 16:50:58 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <nlpqru4tre2omepigadagdvml1unbkpc82@4ax.com>
Source record: 132397

On 28 Oct 2002 05:18:28 -0800, aunwin@insightbb.com (Art Unwin KB9MZ) wrote:

>Not sure what you are driving at.

No doubt, it is a condition most of us find ourselves in when having read one of your missives; the following being a prime example:

>The question is, shouldn't the tribander
>be treated differently than a half wave dipole
>beause it is much longer but only produces the gain
>of a shorter element? Appears to me that there ia
>a large difference in efficiency per unit length.
>Art

Hi Art,

Your nebulous style of writing offers many issues of wonderment. Efficiency per unit length? Why not efficiency per cubic mass? If one matters and the other doesn't, you are in trouble. Let's add another dimension of time and ponder the efficiency per Newton (your antenna moves doesn't it? or does the earth revolve around it?).

Don't you already treat a tribander differently? - we do - perhaps it's time for you to catch up with the rest of us so you wouldn't be plagued with these perceived problems.

We could also consider the implications of the Phonon disturbance, that comes with the eating of crackers, to the magnetic coupling fields. Certainly you can't reject that as just as important an issue as efficiency per calorie, can you?

73's
Richard Clark, KB7QHC

1459. Re: Collins Radio Antenna Compendium

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 17:41:49 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <xFev9.145300$%d2.52173@sccrnsc01>
Source record: 132398

> "Harold E. Johnson" <W4ZCB@mchsi.com> wrote:
>
> >Long ago, long before the League used the term, Collins had a small
spiral
> >bound book with a blue cover and it was named the Antenna Compendium. I
had
> >a copy, but donated it to a local Ham library which has since become
> >non-local.
> >
> >The book contained a section on electrically short verticals and showed a
> >nomograph regarding radials. To my recollection, it indicated that for a
> >given length of wire, you were better off with a few long radials than
many
> >short ones.
>
> That's just the opposite of what I've read. You might go to the Butternut
site
> at
>
> http://www.bencher.com/pdf_download.html#tech_notes
>
> and click on "tech notes" and look at some of their papers on radials.
It'd be
> interesting if Mr. Collins went against "conventional wisdom" on radials.
>
> Bob
> k5qwg

We must be reading different tech notes. 00361ZZV 43
Could you by any chance quote what you've read that supports the
"conventional wisdom"?

W4ZCB

1460. Opinion Please:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 18:27:29 UTC
From: jackinariz@webtv.net
Message-ID: <17123-3DBD8191-84@storefull-2138.public.lawson.webtv.net>
Source record: 132399

I am looking at this .64 wave omni....I would like some of your experts opinions.....It seems well suited for the kinds of DX'ing and local that I do. What do you guys think?..Thanks..Jack D.

http://www.wolfradio.com/p64.htm

1461. Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 18:59:29 UTC
From: tayl0rr@yahoo.com
Message-ID: <ff33c2c3.0210281059.4ecded93@posting.google.com>
Source record: 132400

Which is preferable on a homebrew multiband vertical antenna. A tapped coil at the base or just a fixed length vertical with an antenna tuner? I'm thinking the tapped coil, with a tuner, but would like a little explanation if possible?

What band should the radials be set for? If full size radials are not possible should they just be made as long as possible?

Is there a faq for vertical antennas?

I would like to build a simple multiband antenna for 10-80 meter, but I have limited space, only about 30' horizontal for something like a dipole, but the neighbors wouldn't mind seeing a single vertical sticking up above the house 20-30'.

Thanks
Robert

1462. Re: Collins Radio Antenna Compendium

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 19:00:24 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <doW9PY5xOkLhjBXekgYp=DVuUaJr@4ax.com>
Source record: 132401

"Harold E. Johnson" <W4ZCB@mchsi.com> wrote:

>
>
>> "Harold E. Johnson" <W4ZCB@mchsi.com> wrote:
>>
>> >Long ago, long before the League used the term, Collins had a small
>spiral
>> >bound book with a blue cover and it was named the Antenna Compendium. I
>had
>> >a copy, but donated it to a local Ham library which has since become
>> >non-local.
>> >
>> >The book contained a section on electrically short verticals and showed a
>> >nomograph regarding radials. To my recollection, it indicated that for a
>> >given length of wire, you were better off with a few long radials than
>many
>> >short ones.
>>
>> That's just the opposite of what I've read. You might go to the Butternut
>site
>> at
>>
>> http://www.bencher.com/pdf_download.html#tech_notes
>>
>> and click on "tech notes" and look at some of their papers on radials.
>It'd be
>> interesting if Mr. Collins went against "conventional wisdom" on radials.
>>
>> Bob
>> k5qwg
>
>We must be reading different tech notes. 00361ZZV 43
>Could you by any chance quote what you've read that supports the
>"conventional wisdom"?
>
>W4ZCB
>

From the 19th edition ARRL Antenna Book, page 3-3, "In general, a large number of radials (even though some or all of them must be short) is preferable to a few long radials for a vertical antenna mounted on the ground."

Or, from the "Why Radials?" technote at the Butternut site, page 3, "...but for a given number of wires the separation between adjacent wires necessarily

increases as the wires become longer, in which case currents on the surface between two highly-conductive wires must cross an ever-greater stretch of lossy earth to encounter a low-loss path home..."

Bob
k5qwg

1463. HamCalc & Windows XP ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 19:08:27 UTC
From: Dick <boleyd@yahoo.com>
Message-ID: <LWfv9.36775$Lg2.9970650@news2.news.adelphia.net>
Source record: 132402

Hamcalc V-10 with Windows XP

I receive an error-76 when executing any command from the main menu.

I have set all items that I could to Windows 95 compatibility.

Have tried by typing VE3ERP at c:\ and also by executing the Menu program directly from GWBasic. Same error in all cases ?? help

Dick N3HKN

1464. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 19:09:24 UTC
From: richardharrison@webtv.net
Message-ID: <15704-3DBD8B64-369@storefull-2311.public.lawson.webtv.net>
Source record: 132403

Ken, KC2JDY wrote:
"Two watts is the maximum input.----It (Ten-Tec 1340 40M CW) puts out 3 watts."

You can use the reactance of a coupling capacitor to limit drive to the amplifier. A 1000pf capacitor has 23 ohms reactance at 7 MHz. A smaller capacitor has more reactance.

If the amplifier has a 50-ohm input resistor, nearly 1/3 the voltage will be dropped across the 1000pf coupling capacitor, limiting drive to 2 watts from a 3-watt source.

To further reduce drive under continuous control, add a 365pf variable capacitor shunting input to the amplifier. Several sections in parallel gives more control range.

Best regards, Richard Harrison, KB5WZI

1465. Re: HamCalc & Windows XP ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 19:17:19 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBD8D3F.376ED144@ieee.org>
Source record: 132404

Dick wrote:
>
> Hamcalc V-10 with Windows XP
>
> I receive an error-76 when executing any command from the main menu.
>
> I have set all items that I could to Windows 95 compatibility.
>
> Have tried by typing VE3ERP at c:\ and also by executing the Menu program
> directly from GWBasic. Same error in all cases ?? help

Many programs have to be rewritten to work with Windows XP. Even Microsoft
sells different versions of Office for Win98 Vs WinXP.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1466. Re: Opinion Please:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 19:23:09 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <j72rruge728pukkr1cqcpkegmnk8ss3d8m@4ax.com>
Source record: 132405

On Mon, 28 Oct 2002 11:27:29 -0700 (MST), jackinariz@webtv.net (jack
D) wrote:

>I am looking at this .64 wave omni....I would like some of your experts
>opinions.....It seems well suited for the kinds of DX'ing and local that
>I do. What do you guys think?..Thanks..Jack D.
>
>http://www.wolfradio.com/p64.htm

Hi Jack,

Let's look at one of the several design claims:
>The top of the antenna is terminated with a solid aluminum static
>dissipating tip which also holds the four static dissipating hat wires. .
>These devices help the antenna dissipate static out of the air quieting
>the receiver and reducing the chance of a lightning strike.

In fact, casual observation of this end of the antenna reveals the
pointy elements claimed to be quietners (in sharp contrast to decades
of using large rounded elements that do exactly what is claimed). I
suppose in lightning saturated Florida it is difficult to separate out
the difference between static balls and static points on antennas.
Let's just say this design consideration is hardly worth the cost.

And then let's look at something that is more practical (because in
Florida there's no such thing as working, anti-lightning protection)
like the claim:
>A common flaw of the old style 5/8 wave ground planes were they
>radiated most of the power low in the element close to the radials.

With no actual discussion of what makes this a flaw, how large it is,
or what that flaw might be.

>Then putting the matching coil at the very base of the element didn't
>help the problem. In my new design top loading the element with
>inductance (coil) and capacitance (hat) correct this weakness.

As already noted, nothing as to how much this weakness has been
eliminated is shown, nor how much original weakness there was. In
fact, ALL of the commentary uses conventional gain figures WITH that
weakness (sic) built in.

Once you get past the blarney, the fact remains that the 5/8ths has
the same potential and that a simple 22 foot radiator and ground plane
with matching could do as well for far less than $145.00 Prospective
buyers should ask themselves why a 5/8ths antenna with a gamma match
needs other matching elements such as two coils and a capacitive hat -

except to boost profit or perhaps as a product of Antenna Optimization (whoops, such pseudo-science brings us back to the profit motive once again!).

73's
Richard Clark, KB7QHC

1467. Re: HamCalc & Windows XP ?? Fixed!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 19:45:39 UTC
From: Dick <boleyd@yahoo.com>
Message-ID: <Dtgv9.36803$Lg2.9978139@news2.news.adelphia.net>
Source record: 132406

I extracted the ZIP file to a diskette and ran from there ok. Will work if
run from ROOT of a drive.
Tricky but it works and has a wealth of nice programs for the serious Ham.
Latest copy on ARRL web site.
Dick N3HKN

"Dick" <boleyd@yahoo.com> wrote in message
news:LWfv9.36775$Lg2.9970650@news2.news.adelphia.net...
> Hamcalc V-10 with Windows XP
>
> I receive an error-76 when executing any command from the main menu.
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> Have tried by typing VE3ERP at c:\ and also by executing the Menu program
> directly from GWBasic. Same error in all cases ?? help
>
> Dick N3HKN
>
>
>

1468. Re: MFJ Antenna Bridge

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 20:05:34 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <nb6dnf9c9vHKBSCgXTWcog@comcast.com>
Source record: 132407

Doug,

Did you look at www.mfjenterprises.com ? They have PDF versions of almost
all their stuff online.

Tam/WB2TT
"WB3EGX" <wb3egx@aol.com> wrote in message
news:20021027185928.17702.00000057@mb-fd.aol.com...
> Would any of you happen to have an operating manual for the MFJ-204B
Antenna
> Bridge. I picked one up at a Hamfest but with no instructions. A scanned
copy
> would be great. MFJ might send one in 4 weeks to life. Thanks &
73's.....Doug
> / WB3EGX

1469. "High Carbon Steel Masts"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 20:30:48 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <urr7jrq6jtknda@corp.supernews.com>
Source record: 132408

Greetings,

Can anyone tell me where to purchase "High Carbon Steel Masts"? Tex Tower is out and "can't give a clue" when they will have any.

Thanks,
Jim - KU5S

--
email sent to: denews@taborsoft.com
is discarded without being seen.
Sorry for any inconvenience.

1470. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 20:45:08 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210281245.8d55391@posting.google.com>
Source record: 132409

"Larry Phipps" <larry@telepostinc.com> wrote in message
news:<mEcv9.2433$z5.1763715@newssvr28.news.prodigy.com>...
> I think what Art is driving at is that with a trapped dipole, only part of
> the physical element is radiating (assuming a very good trap) om 10m.
> Likewise, the SteppIR fiberglas elements are always 36' long, even when
> using 6 meters, because the copper tape is varying in length inside. He is
> arguing for using the whole element on 15 & 10m...ie., .75 wavelength on 15m
> & 1 wavelength on 10m to get some additional collinear gain.
>
> Not a bad sentiment, but difficult to achieve in a multiband, multi-element
> array.
>
> I guess that would be an argument about the efficient use of space.
>

I had trouble parsing Art's argument and, not knowing what a SteppIR
was, wasn't certain what he was getting at.

If I strung a 10 meter dipole between two trees 200 ft apart is the
antenna 200 feet long (by virtue of the rope used)? Of course not.
It is still only about 17 feet long. Also, the 'turning radius'
(which I took as being the physical---not electrical---size of the
antenna in his argument) has (almost) nothing to do with gain or
efficiency. You can easily build an antenna with a 2 inch turning
radius but 6 dB gain (stack 4 dipoles vertically). Lay it
horizontally and it will still have the same gain, but a 'turning
radius' of over 140 feet!

If he wants to change how people describe antennas, he will be going
against almost 100 years of established practice. Better to study
antenna theory first before attacking such a dragon, and gain a
knowledge of the incantations involved.

Maybe a good figure of merit would be gain per pound of metal used?

Jim
N8EE

1471. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 21:05:41 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210281305.51ac8994@posting.google.com>
Source record: 132410

Jim, I am going to assume that your questions are sincere and not an
attempt to do something else so I will respond to your post.

.bolinger@lintek.aeroflex.com (JLB) wrote in message
news:<8d5ec8a2.0210280535.2786935a@posting.google.com>...
> aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message
news:<85ed38d.0210271855.3f0d3f13@posting.google.com>...
> > When using 'Gain' as a comparison term
> > many get mixed up with 'over ground',
> > 'free space' e.t.c that lead to a non
> > real comparison as compared to a
> > particular radiator length at real height of say 25 metres
> > over a perfect ground. The reason I come to
> > re-examine 'gain' as we know it is because it ignors
> > turning radius or preferbly, gain per unit length.
> > For instance, a tribander for ten metres is
>
> Do you mean 'tribander' or 'three element monoband yagi'?

Well a dipole is a single element so for a tri bander I would be
referring to a single element tri bander, I have not made mention
of an array.

> > said to be roughly equal to a half wave element (dipole)
> > yet the tribander is using twice the turning radius,
> > because it has a part that is not radiating!
>
>
> What do you mean by 'part that is not radiating'? The boom?

Very funny. When you have a tribander element and you use it on 10
metres
you do not use all the physical length. Radiation stops at the trap
after which the physical element is not radiating, very inefficient.
>
> 'Turning radius' is the amount of horizontal distance you would need
> to rotate the antenna on a rotator. It has little to do with gain.
>
> > A Zepp which measures some where inbetween has more
Error of course
> > gain than either of them and so is more efficient in
> > terms of unit length to either of them .
>
Maybe so, but the 3 element yagi has a much better radiation pattern
than either.

Probably but I have not refered to arrays at this time.

>
> > Even the latest antenna on the scene, the steppir,
> > states 'compared to a dipole' yet its turning radius
> > is DOUBLE that to which it is compared (ten metres) .

> When an antenna is 'compared to a dipole' this does not mean that it
> is the same as a dipole. It means that the dipole is used as a
> reference, and the antenna being discussed is N times better than the
> dipole.

You are quite correct but when looking at an order of merit one must
consider turning radius and efficiency. If I made the tribander even
longer
by adding wood or something not conuctive at its ends should it be of
the same merit value of a tribander or a dipole or a dipole with
capacity hats at its ends ?

> > To call them "the same" is patently ridiculous
> > because the multibander is using a physical length
> > of twice the 1/2 wave dipole, which is so much more
> > inefficient per unit length.
>

Electrical length is more important than physical length.

Quite true, now you are comming around

> As amateurs where most are constrained by antenna radius,
> > would it not be more reasonable to refer to efficiency
> > per 'unit length' where as more bands are created the more
> > the movement to multi frequency antennas?

> Efficieny has to do with the resistive loss in the antenna.

Thats only part of it, you also can have cancellations that
produce less gains .The object I am looking at is gain and
the physical length to achieve that gain.
o

> > Think about it, we think of gain as an order of merit
> > so the tribander with double the element length of a 1/2 wave
> > dipole has the SAME 'order of merit".

If this was true, then why bother putting up a 'bigger' antenna?
Everyone would be doing moonbounce with dipoles! Again, the dipole
is
used as a reference, which is not saying that it is the same as the
tribander.

Bigger is not always better, especially if like a tri bander made
longer and bigger with the use of non radiating parts!

> > We complain of those who misuse 'gain' figures
> > as an order of merit where the average amateur is
> > more interested in max gain per turning radius (unit length)
> > over real ground.
> > Is it time to put our own house in order ?

> ...And maybe take a class in Antenna Theory first?

Now now Jim this is a discussion forum.
How do most of us measure gain compared to what is really relevant
which is how the element is used in practice.Manufacturers, scientists
and even computations can use 'ficticious' gains that you cannot
measure
while it is in use. It doesn't show on the meter. Antenna theory is
fine but not really practicable when measuring in the real world
Jim
N8EE

Jim Ihave only provided a tickler for thought, no body likes change
so everybody uses different terms where all can justify its merits.
At the moment we ignor efficiency yet we all know that the ends of a
radiator
are the most inefficient portion of a half wave radiator when
comparing
to unit length.
Art

1472. Re: How to lower transmitted power?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 21:08:04 UTC
From: richardharrison@webtv.net
Message-ID: <4923-3DBDA734-915@storefull-2317.public.lawson.webtv.net>
Source record: 132411

Roy Lewallen, W7EL wrote:
"And I`m talking here about output impedance, not load impedance
(regarding 50-ohm transmitter output)."

Yes.

Recall the breaker points in the Kettering automotive ignition system (the kind used before electronic ignition arrived). Contact resistance is almost zero when points are closed so the points won`t burn. When the points are open they have no loss either.

A "dwell meter" is used to determine what percent of the time the points are closed while the engine is turning. It`s simply an indication of the average current through the dwell meter during the making and breaking of the points. It is calibrated to read 100% when the engine is stopped with ignition current flowing through the closed ignition points.

The calibrated dwell meter would also read some value less than 100% were some resistance added to the point circuit. Current through the resistance would represent a real loss as indicated on the dwell meter, still representing less than complete conductance.

The calibration of the dwell meter just sets the meter to read 100% when the points are closed without any added resistance in the point circuit. The meter reads average current when the points are making and breaking.

The reduction from 100% dwell is normally caused by ignition current interruptions, not by a resistance voltage drop, so there is no loss from this "lossless resistance" which reduces average current.

"Class C", and to a lesser extent "Class B" amplifiers operate much like the breaker points in a Kettering ignition system. These amplifiers interrupt d-c current flow at the r-f rate. When they are turned-off for part of each cycle they are drawing no current and have no dissipation. When they are turned-on, dissipation is low due to their high conductance. The output resistance of these amplifiers mostly does not come from internal dissipation, but from their switched-off times. The interruption of current to the amplifier has the same effect of increasing output impedance as opening ignition points has in the automotive ignition system.

Best regards, Richard Harrison, KB5WZI

1473. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 22:01:41 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DBDB3C5.FC769160@cwis.net>
Source record: 132412

Robert,
Using a tapped coil at the base of the vertical
would eliminate or reduce losses in the feed line.
It also makes it a bit more inconvenient because you
have to go out to change the tap when changing bands.
So, which would you rather do?
'Doc

1474. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 22:04:22 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DBDB466.41B795D6@cwis.net>
Source record: 132413

Art,
I think the problem is you're refering to a rotatable
multiband dipole as a 'tribander', which is usually how
people describe a three-band multielement beam.
'Doc

1475. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 22:10:28 UTC
From: theplanters95@aol.comnospam
Message-ID: <20021028171028.06353.00001294@mb-ch.aol.com>
Source record: 132414

Can 450 ohm ladder line be used to reduce feedline loss?

Randy ka4nma

1476. Re: Collins Radio Antenna Compendium

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 22:11:53 UTC
From: "Harold E. Johnson" <W4ZCB@mchsi.com>
Message-ID: <JCiv9.142122$qM2.44858@sccrnsc02>
Source record: 132415

> Or, from the "Why Radials?" technote at the Butternut site, page 3,
"...but for
> a given number of wires the separation between adjacent wires necessarily
> increases as the wires become longer, in which case currents on the
surface
> between two highly-conductive wires must cross an ever-greater stretch of
lossy
> earth to encounter a low-loss path home..."

Thanks, must think about that in reference to a radiator much shorter than
1/4 wave, but it probably is that I remember the initial reference wrongly.

W4ZCB

1477. Re: "High Carbon Steel Masts"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 22:11:59 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3dbdba8e_2@news1.prserv.net>
Source record: 132416

Look in the "Yellow Pages" of a large city nearby for steel suppliers. Ask for steel tubing with the diameter, wall thickness and yield strength you need. In almost every city there is one (or sometimes more) dealer which will sell small quantities of steel to walk in retail customers.

--
Crazy George
Remove NO and SPAM from return address
J Tabor <denews@taborsoft.com> wrote in message news:urr7jrq6jtknda@corp.supernews.com...
> Greetings,
>
> Can anyone tell me where to purchase "High Carbon Steel Masts"? Tex Tower is
> out and "can't give a clue" when they will have any.
>
> Thanks,
> Jim - KU5S
>
> --
> email sent to: denews@taborsoft.com
> is discarded without being seen.
> Sorry for any inconvenience.
>
>

1478. Re: HamCalc & Windows XP ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 23:20:34 UTC
From: "j. keith carter" <j.keith.carter@sympatico.ca>
Message-ID: <3DBDC642.4BF7AD88@sympatico.ca>
Source record: 132417

Hi Dick; I run Windows XP (ugh) and when I upgraded to the latest version of Hamcalc I just loaded per George's instructions and it runs fine. Still acts like a DOS program but no problems with XP. Suggest you e-mail George. It may be a faulty CD. Keith, VE3JKC.

Dick wrote:

> Hamcalc V-10 with Windows XP
>
> I receive an error-76 when executing any command from the main menu.
>
> I have set all items that I could to Windows 95 compatibility.
>
> Have tried by typing VE3ERP at c:\ and also by executing the Menu program
> directly from GWBasic. Same error in all cases ?? help
>
> Dick N3HKN

1479. Re: HamCalc & Windows XP ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 23:28:07 UTC
From: "j. keith carter" <j.keith.carter@sympatico.ca>
Message-ID: <3DBDC807.A82E8B8F@sympatico.ca>
Source record: 132319

Dick, I forgot to mention, I boot from a desktop shortcut. Keith, VE3JKC.

Dick wrote:

> Hamcalc V-10 with Windows XP
>
> I receive an error-76 when executing any command from the main menu.
>
> I have set all items that I could to Windows 95 compatibility.
>
> Have tried by typing VE3ERP at c:\ and also by executing the Menu program
> directly from GWBasic. Same error in all cases ?? help
>
> Dick N3HKN

1480. Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-28 23:31:00 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <0chrrusbcfi0hb2kkfe0i8nfkj48d83k47@4ax.com>
Source record: 132418

I live in an area that has a fair amount of wildlife, and have had problems with gophers (I assume) chewing on buried and surface cables. They seem to be attracted to current, even at low levels. The only type of cable they don't seem to mess with is shielded direct burial cable. That stuff has a very hard, thick jacket. Before I install 150 feet of expensive coax for an HF antenna, I wanted to ask if anyone has had problems with rodents chewing their coax.

I know conduit would prevent wire chewing, but it is so much easier to lay the coax on the ground.

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http://www.newsfeed.com The #1 Newsgroup Service in the World!
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1481. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 00:16:46 UTC
From: fractenna@aol.com
Message-ID: <20021028191646.27717.00001046@mb-mf.aol.com>
Source record: 132320

Unfortunately, Mike, it pays to use PVC pipe.

As soon as even a little nibble is done on the jacket, water seeps in and destroys the coax. Its slow, but a year may go by until you wonder why the SWR is so good but you can't break pile ups anymore...

Water seepage is the real problem. The critters are just the delivery system.

Try renting a Ditch Witch and the pipe will go in pronto.

73,
Chip N1IR

1482. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 01:13:51 UTC
From: k9sqg@aol.com
Message-ID: <20021028201351.20302.00001037@mb-cm.aol.com>
Source record: 132322

PVC or metallic pipe underground prevents physical damage to the coax from rodents, pitch forkes, shovels, etc.

1483. Re: G5RV, single or double length ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 01:17:29 UTC
From: "c.wright" <c.wright@auckland.ac.nz>
Message-ID: <3DBDE1A9.BDAE710E@auckland.ac.nz>
Source record: 132323

CAM wrote:

> Andy Cowley wrote:
> >
> > CAM wrote:
> > > As I suspected, the
> > > antenna does a good job on 160m, 80m, & 40m. The SWR's on the 50
> > > ohm coax are 4:1 on 1.95 MHz, 4:1 on 4.0 MHz, and 2.4:1 on 7.19 MHz.
> >
> > A 4:1 SWR on coax is good? Must be some new kind of good you're talking
> > about there. 1.4:1 is O.K. but 4:1 is no way 'good'.
>
> Well, would you believe "not bad"? :-) The loss in 100 ft. of RG213 with
> an SWR of 4:1 would be about 0.01 dB higher than the matched line loss
> according to the chart in _The_ARRL_Handbook_. On 160m, the loss increases
> from about 0.22 dB to about 0.23 dB and on 75m, the loss increases from about
> 0.32 dB to about 0.33 dB. Exactly how does one measure that extra 0.01 dB of
> loss caused by an SWR of 4:1?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

Hi Guys.
Oh Dear!! hasn't anyone heard of a Z match tuner these days!
I've used the G5RV for 30 years and have DXCC and WAC with it. Never running more than 100 watts. All it needs, especially with modern solid state rigs is a Z match tuner (see the old RSGB ham handbook).
With a 102 Ft G5RV you don't just have effectively unity SWR and a genuine 50 Ohm load on all bands but you also have a very good all band SWBC receiving antenna as well.
I haven't tried the 204 Ft version myself as I've never had enough room for one but I guess it would be even better on 160 and 80 metres especially.
Years ago I used the original design with 34 Ft of open wire feeders with coax on the end but I never really found it as satisfactory.
On 20 metres CW it takes a lot of beating especially as a transmitting antenna. I used to use the G5RV on TX and a phased 5/8 vertical array for RX 30 years ago and used to work the antipodes of NZ (Spain and the western Med) when 20 was apparently dead, in the early afternoon local time.
Just recently I worked a Bulgarian station while using an ARRL 1934 2 tube receiver on my G5RV.
For someone like myself who has always been an experimenter the G5RV takes a lot of beating.

Regards Cliff Wright ZL1BDA ex G3NIA.

1484. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 01:23:24 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210281723.121ebe8e@posting.google.com>
Source record: 132324

Richard Clark <kb7qhc@attbi.com> wrote in message
news:<nlpqru4tre2omepigadagdvml1unbkpc82@4ax.com>...
> On 28 Oct 2002 05:18:28 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
> wrote:
>
> >Not sure what you are driving at.
>
> No doubt, it is a condition most of us find ourselves in when having
> read one of your missives; the following being a prime example:
>
> >The question is, shouldn't the tribander
> >be treated differently than a half wave dipole
> >beause it is much longer but only produces the gain
> >of a shorter element? Appears to me that there ia
> >a large difference in efficiency per unit length.
> >Art
>
> Hi Art,
>
> Your nebulous style of writing offers many issues of wonderment.
> Efficiency per unit length? Why not efficiency per cubic mass? If
> one matters and the other doesn't, you are in trouble. Let's add
> another dimension of time and ponder the efficiency per Newton (your
> antenna moves doesn't it? or does the earth revolve around it?).
>
> Don't you already treat a tribander differently? - we do - perhaps
> it's time for you to catch up with the rest of us so you wouldn't be
> plagued with these perceived problems.
>
> We could also consider the implications of the Phonon disturbance,
> that comes with the eating of crackers, to the magnetic coupling
> fields. Certainly you can't reject that as just as important an issue
> as efficiency per calorie, can you?
>
> 73's
> Richard Clark, KB7QHC

Richard there you go again trying to appear extremely smart and deride
anything that does not appear to be up to your standards. I remember
sometime ago that you rejected gain terminology because it was not the
one you like to use.
Another time you recognised that you can get get bidirectional field
patterns
using a phase change on an element that is longer than a half wave and

then pronounced that it could not possibly provide extra
gain.Presumably you reject
that a extended zepp cannot get extra gain by providing two half wave
in phase.
I can therefore understand that you cannot except that an element on a
tribander can provide more gain by using all the physical length to
radiate.
But for those who are willing to discuss things with an open mind
order of merit
is a legitamate discussion where it provides a basis for comparison.
Certainly if a multi band element (tri bander?) is able to use ALL of
its physical length to radiate instead of stopping radiation by the
use of a trap e.t.c then I would consider that should have a better
order of merit.
If you want to suggest a counter proposal of ' efficiency per calorie'
then be my guest. But if you hold on to your prestated ideas that a
'collinear'pattern does NOT provide more gain than a dipole using the
same physical length used in a multibander you would be better off
studying shakespeare instead of deriding others. On the other hand you
could provide interesting responses both for and against. Have you no
ideas regarding order of merit at all?

1485. Re: A Challenge

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 01:31:05 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-2810021731050001@bni030qny8kc.bc.hsia.telus.net>
Source record: 132325

In article <3DBD0497.30D15D41@oda.com.au>, owen@oda.com.au wrote:

> Wayne wrote:
> >
> > While a bit late, here's one possible antenna.
> > A 40 meter dipole, tuned for the center of the portion of the band you will
> > be able to work, and an antenna tuner to use it on other bands.
> > I use a 40/20 dipole myself, and a tuner to use it on 80, and other bands.
>
> I have a similar antenna (without the 20m wires) - a low 40m dipole with
> the ends lower than the centre.
>
> The modeled driving point impedance is 8-j890 ohms at 3.7MHz. It is fed
> by 17m of RG6, which has a loss of 0.21dB at 3.6MHz. There is about 15dB
> loss on the feedline in the mismatched state, impedance seen at the ATU
> end of the feedline is 1.9+j7.9 ohms. A T match tuner should transform
> this to 50 ohms with a loss of around 4dB.

I haven't checked your antenna impedance or feedline loss figures, nor the impedance seen at the end of the feedline. These figures don't surprise me.

Note that 1.9 ohms resistance in series with 7.9 ohms inductive reactance looks like 34.75 ohms resistance in parallel with 8.36 ohms inductive reactance.

An L section should do considerably better than the T match tuner. You would want an effective Q of about 5, so build out the load with an additional 1.66 ohms of inductive reactance or so. That would be about 0.073 microhenrys, pretty small, but even if the coil had a Q of only say 10 it would merely increase the loss a small fraction of a db. The shunt capacitor would then be about 10 ohms reactance or about 0.0044 microfarad and of course it would have to handle quite a lot of current if the power was at all high. A great huge 1950s transmitting mica capacitor might be OK.

If you skipped using the series inductor and just used a shunt capacitor with about 8.36 ohms reactance (about 0.0053 microfarad) the resulting impedance would be about 35 ohms, and that shouldn't displease the transmitter too much.

Perhaps a slightly longer piece of coax would change R+jX from the 1.9+j7.9 value just enough so as to look exactly like 50 ohms in parallel with a certain amount of inductance, and then a single shunt capacitor would get you exactly 50 ohms.

Never use three components when two, or better yet one, will do. When your antenna is that poor, and your feedline loss is that high, every little bit helps.

I leave it to CAM W5DXP to work out how to do it with open wire instead of coax.

David, ex-W8EZE

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

1486. Re: New General looking for antenna ideas for apartment

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 01:36:32 UTC
From: KC5CQW <kc5cqw@excite.com>
Message-ID: <urrph1b7a090fe@corp.supernews.com>
Source record: 132326

This sounds like my QTH. I was given a newtronics/hustler 5BTV. I have a ground wire going down to a 4' ground rod. (not the best setup, but it works) Between the TenTec 1251 RF counterpoise and the MFJ or LDG tuners, it does the job. I wish I could setup radials but that is almost impossible. It is a miracle I haven't been told to remove this thing yet.:-)

"Scott Keller" <yeah_right@noway.com> wrote in message news:3db5742b.6221779@news.verizon.net...
> I just passed my General exam (woo hoo!), and my TS-430 is coming
> tomorrow or Thursday. I live in an apartment, and I have balcony
> access. I was a Tech Plus, so I have been running a 10 meter vertical
> out there without any problems. Any ideas on which bands I should try
> to use? I mostly will operate after 5:00 PT, and I am in Washington.
> What bands would be open after 5:00? Will 20 still be open? I really
> don't know, beause I don't have a good radio to monitor the bands yet.
>
> Also, anyone have some great limited-space antenna ideas for me? I
> have a balcony (with wooden railings) to work with.
>
> Also, what are some of the favorite HF bands that people use in this
> newsgroup, and why?
>
> Thanks,
>
> Scott Keller
> N9WDH / AG

1487. Re: seeking a meter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 01:45:46 UTC
From: KC5CQW <kc5cqw@excite.com>
Message-ID: <urrq2bid5ckpe1@corp.supernews.com>
Source record: 132327

Radio Shack sells one for about $10 or less.
"Louis" <lou1@westnet.com> wrote in message
news:yARu9.1558$Ve3.1105727@monger.newsread.com...
>
>
> hi!
>
> am seeking an old style voltmeter 0 - 15volts dc or 0 - 20.
> needle type, not digital. simpson or weston made them.
> square or round. basially the meter is a panel type that just tests
> voltage. not a multimeter with a switch.
> if you have oen pls email me
>
> thanks
>
> louis

1488. Re: "High Carbon Steel Masts"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 02:01:24 UTC
From: David Ornee <dornee@sbcglobal.net>
Message-ID: <UZlv9.2134$mN6.584717@newssrv26.news.prodigy.com>
Source record: 132321

"Crazy George" <munschNO@attglobal.net.SPAM> wrote in message
news:3dbdba8e_2@news1.prserv.net...
> Look in the "Yellow Pages" of a large city nearby for steel suppliers.
Ask
> for steel tubing with the diameter, wall thickness and yield strength you
> need. In almost every city there is one (or sometimes more) dealer which
> will sell small quantities of steel to walk in retail customers.
>
> --
> Crazy George
> Remove NO and SPAM from return address
> J Tabor <denews@taborsoft.com> wrote in message
> news:urr7jrq6jtknda@corp.supernews.com...
> > Greetings,
> >
> > Can anyone tell me where to purchase "High Carbon Steel Masts"? Tex
Tower
> is
> > out and "can't give a clue" when they will have any.
> >
> > Thanks,
> > Jim - KU5S
"Crazy George" is correct.
While you are at it you might want to check into Chromo (AKA 4130) steel.
It is quite a bit stronger per a given wall thickness.
73, KQ9W, David Ornee

1489. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 02:51:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urrtuatcgc5c2b@corp.supernews.com>
Source record: 132328

Art Unwin KB9MZ wrote:
> . . .
> Jim Ihave only provided a tickler for thought, no body likes change
> so everybody uses different terms where all can justify its merits.
> At the moment we ignor efficiency yet we all know that the ends of a
> radiator
> are the most inefficient portion of a half wave radiator when
> comparing
> to unit length.
> Art

Speaking of using different terms. . .

"Efficiency" has a very well known and universally accepted definition when applied to antennas: it's the fraction of applied power which is radiated. By this definition, an antenna having portions which don't radiate isn't necessarily any less efficient than one in which every part radiates. So if you choose to use "efficiency" in any way other than the accepted manner, please very carefully define what you mean, and note that you're using the term in an unconventional manner. Otherwise you're certain to fail to communicate.

A lot of people are perfectly glad to increase the turning radius of an antenna to pick up some gain, front/back ratio, bandwidth, beamwidth, or other desirable characteristic. And in each situation, one set of characteristics is more important than others, but the set can be different in each case. So making any kind of "figure of merit" or pseudo-gain or -efficiency from combinations particularly important to you is a useless enterprise, no matter how much fun it might be.

Advertisers are fond of inventing a problem, then presenting their product as the solution. And computer hardware and software vendors are fond of creating benchmark tests to show that their product is superior, even though all they prove is that the product is superior in solving a problem carefully contrived to show it in the most favorable light. I sense that's what's happening here.

The reason everyone isn't jumping on the bandwagon to embrace your concept isn't that they don't "like change". It's that it serves no useful purpose for hardly anyone. Everyone and every situation has its own set of factors that are important, so your "figure of merit", pseudo-gain or whatever, is useless to someone else to whom other factors are important.

Roy Lewallen, W7EL

1490. Ant. Tuner Use

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 02:54:08 UTC
From: lizp12th@aol.com
Message-ID: <20021028215408.12871.00001146@mb-fk.aol.com>
Source record: 132329

Hello,

A antenna tuner is a circuit of variable capacitance and variable inductance. A antenna system and feedline that are NOT properly matched to the transmitter will have capacitive reactance or inductive reactance in the circuit. Typically there will be a combination of inductive and capacitive reactance present. The tuner is used to balance or cancel out the reactances. A tuner basically tricks the transmitter into seeing a purely 50 ohm resistive load. A tuner presents its share of problems also. A tuner increases losses in your system but it gives you more flexibility for various band operating. The ideal (in my case, dream...8)) situation would be to have a seperate antenna for each band that would be resistively matched to my transmitter without the need for a tuner. I do not own several acres for a antenna farm so I must accept the tuner losses for multiband single antenna flexibility. A tuner in no way will improve your SWR from the tuner output to the antenna. It improves your SWR from tuner input to your transmitter.

73,
Mike
KB5RF
mwh87120@yahoo.com

1491. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 02:58:02 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <97qrruohal6sdv1cig5i5s2vqspp1ia0ia@4ax.com>
Source record: 132330

On 28 Oct 2002 17:23:24 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>Richard there you go again trying to appear extremely smart and deride
>anything that does not appear to be up to your standards.

I am responding to the failure of much lower standards than that.

> I remember
>sometime ago that you rejected gain terminology because it was not the
>one you like to use.

Actually it was one you invented for the occasion and no one else used
before - or since. Looks like you've forgotten it too.

>Presumably you reject
>that a extended zepp cannot get extra gain by providing two half wave
>in phase.

Then again, presumably I don't.

>I can therefore understand that you cannot except that an element on a

the word is accept (and yes I except which is the opposite of cannot
except).

>tribander can provide more gain by using all the physical length to
>radiate.

Hi Art,

This is the height of ridiculousness.

You are using what is called the Strawman argument. You alone have
made the choice of this so-called "tribander." You seem to be more
than willing to use terms of your own invention and sit back wandering
why no one understands - it is worse when you use existing terms with
new meanings. You would gain much if you observed other advice here
to study the topic.

But let's get back to this Strawman of your choice - tribander.

It is obvious that you have chosen a poor example to take apart that
allows you to then make a discovery hidden to us all (yeah, sure).

>tribander can provide more gain by using all the physical length to
>radiate.

This obviously begs the question: why did you make this poor choice in the first place? Imagine indeed those pitiful, useless two outboard sections that do nothing for the top band operation! Art, can you imagine WHY they call it a tribander? If only they would just go away so they did not upset the turning radius! Only the kid in the street would notice the King had no clothes on. You chose the "tribander" to only condemn it for having other elements to cover two more bands? That is precious by half. Is the next thing on the plate trying to convince us that the 10M section with its 10M trap is enough - why don't we just cut off the rest?

Art, I know what you are talking about. It is poor set-up for your half thought out propositions where you have to cleverly craft a problem your invention will solve. The problem with THAT problem is that no one suffers it because they have the smarts to stay away from it in the first place. Folks here and around have already optimized their antennas for maximum turning radius efficiency - Hams in general aren't the hayseeds you seek to convert.

73's
Richard Clark, KB7QHC

1492. Re: Mobile 144/440 Favorites?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 03:06:05 UTC
From: Dave Staples <dasflies1@comcast.net>
Message-ID: <qy2dnbGkeKOnZCOgXTWcrg@comcast.com>
Source record: 132287

I have a Kenwood TM-G707A and love it!

Dave KB3HIU
dasflies1@comcast.net

"Zasz" <prodroom@hotmail.com> wrote in message
news:o9Zu9.8761$Fj6.789768@newsread1.prod.itd.earthlink.net...
>
> Suggestions wanted for a 144/440 to go on a Ford Explorer, antenna
will
> be mounted to the roof rack with appropriate mount.
>
> Thanks.
>
>
>

1493. Re: Why Do I Neen an Antenna Tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 03:10:07 UTC
From: lizp12th@aol.com
Message-ID: <20021028221007.12871.00001149@mb-fk.aol.com>
Source record: 132331

Hello,

A antenna tuner is a circuit of variable capacitance and variable inductance. A antenna system and feedline that are NOT properly matched to the transmitter will have capacitive reactance or inductive reactance in the circuit. Typically there will be a combination of inductive and capacitive reactance present. The tuner is used to balance or cancel out the reactances. A tuner basically tricks the transmitter into seeing a purely 50 ohm resistive load. A tuner presents its share of problems also. A tuner increases losses in your system but it gives you more flexibility for various band operating. The ideal (in my case, dream...8)) situation would be to have a seperate antenna for each band that would be resistively matched to my transmitter without the need for a tuner. I do not own several acres for a antenna farm so I must accept the tuner losses for multiband single antenna flexibility.

1494. Re: Collins Radio Antenna Compendium

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 03:13:18 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <t1urruk0msnffv0l03bonie6qreodop6hf@4ax.com>
Source record: 132332

On Mon, 28 Oct 2002 22:11:53 GMT, "Harold E. Johnson"
<W4ZCB@mchsi.com> wrote:

|Thanks, must think about that in reference to a radiator much shorter than
|1/4 wave, but it probably is that I remember the initial reference wrongly.

Bingo.

From ON4UN's "Low-Band DXing" Third Edition p 9-13:

"The following rule was experimentally derived by N7CL (a friend of
mine) and seems to be a very sound and easy one to follow. Put
radials down in such a way that the distance between their tips is not
more than 0.015 lambda."

1495. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 03:42:35 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DBE03AB.137F7A39@cwis.net>
Source record: 132333

Randy,
Sure, but not eliminate it.
'Doc

1496. BIG piece of ferrite-WHERE do I begin

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 03:46:41 UTC
From: Joe Strain <yodar@cfl.rr.com>
Message-ID: <Bwnv9.20078$fa.471956@twister.tampabay.rr.com>
Source record: 132334

Electronics Goldmine has a PCB with a piece of ferrite 3' x 5' laid on it.
What do I do? Start cutting it into RODS or start winding a HELLUVA lotta
wire around it for MW - LW DX swl

yodar

1497. Re: seeking a meter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 03:48:02 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <Qxnv9.2080$qD2.489485@news20.bellglobal.com>
Source record: 132335

OT - maybe it's for a PS for an antenna... ;-)

"Louis" is
> seeking an old style voltmeter 0 - 15volts dc or 0 - 20.
> needle type, not digital. simpson or weston made them.
> square or round. basially the meter is a panel type that just tests
> voltage. not a multimeter with a switch.
> if you have oen pls email me

"KC5CQW" suggested...
> Radio Shack sells one for about $10 or less.

Actually US$12.99
www.radioshack.com
Type in product number 22-410 at the top
(specs*, hole template)

* Interesting note: "You must connect the 15 kOhm resistor (supplied)
between the voltmeter and the voltage supply being measured." (.: 1mA
movement.)

or Cdn$17.99 in Canada
www.radioshack.ca/estore/Product.aspx?product=2200410
(nice big picture)

These exact meters were being sold for Cdn$3 a few months back during their
'Inventory Blowout' (at least in Canada). Ask around and maybe you'll find
someone that bought several because they couldn't resist a deal.

1498. Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 04:23:04 UTC
From: Nelson Gietz <ngietz@mb.sympatico.ca>
Message-ID: <tkwv9.2397$b5.12416@news1.mts.net>
Source record: 132361

Hi,
I'm considering winding an "un-un" tranformer, for listening to .54-54 mHz on
a random wire. Thought of using a ferrite ring from a dead computer power supply. Good idea or should I order up a specific ring?
Nelson

1499. Considering adding a vertical to the antenna farm

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 04:25:41 UTC
From: Jason Hissong <jhisson1@columbus.rr.com>
Message-ID: <95ov9.100706$kF.16080162@twister.columbus.rr.com>
Source record: 132336

Hi gang,

I am putting up a Glen Martin roof mounted tower that will put my Hexbeam up at 32' (Incidentally, the Hexbeam performs a little better than my inverted V dipole at 30'... and the Hexbeam is only 8' off the ground at this time! I cannot imagine what this thing will do at 32'!) I will have the Hexbeam that can do 20-10M so that will give me the beam capability. My inverted V dipole is a DXLB+ that will be mounted at 32' at the apex (using the tower). This will cover 160-10 minus WARC bands (which will allow me to do state side QSO's). I am considering adding a GAP Eagle DX to my antenna list. I have a friend that will sell his for a good price (he is upgrading to a tower). I used to own one and I had a bad time with it (which I think it was operator error because the coax connector was not solidly soldered to the feedline of the antenna.) The guy I sold it too is having a great time with it and it is performing very well for him (in fact, his location is worse than mine!!) So I am considering giving it another chance.

So my question is this, would a bad solder joint cause the antenna to be a poor performer? The guy who bought my original Eagle DX pulled the coax connector right off with little effort. The copper braid in the coax was black for about 6". With a properly soldered coax connector, would this make a difference?

Second question, adding the vertical... would this give me a well rounded selection of antennas? (Beam, dipole, vertical).

Thanks es 73!

Jason Hissong
N8XE

1500. Re: Ant. Tuner Use

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 04:51:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urs4tq4lq1197d@corp.supernews.com>
Source record: 132338

LizP12th wrote:
> Hello,
>
> A antenna tuner is a circuit of variable capacitance and variable
> inductance. A antenna system and feedline that are NOT properly
> matched to the transmitter will have capacitive reactance or
> inductive reactance in the circuit.

A mismatched system can also be purely resistive -- that is, with no reactance -- but the wrong resistance. Admittedly, though, this condition is uncommon when dealing with antennas.

> Typically there will be a combination
> of inductive and capacitive reactance present.

One is simply the negative of the other, and the two add up to a single value. For example, 200 ohms of inductive reactance + 50 ohms of capacitive reactance can be written j200 + (-j50) = j150 ohms which is 150 ohms of inductive reactance. 200 ohms of inductive reactance + 300 ohms of capacitive reactance = j200 + (-j300) = -j100 ohms, or 100 ohms of capacitive reactance. So although there might be several or many capacitive or inductive components in a circuit, there's only a single resulting value of reactance, which can be positive (inductive) or negative (capacitive).

The tuner is used to
> balance or cancel out the reactances. A tuner basically tricks the
> transmitter into seeing a purely 50 ohm resistive load. A tuner
> presents its share of problems also. A tuner increases losses in
> your system but it gives you more flexibility for various band operating.
> The ideal (in my case, dream...8)) situation would be to have a seperate
> antenna for each band that would be resistively matched to my
> transmitter without the need for a tuner. I do not own several acres
> for a antenna farm so I must accept the tuner losses for multiband
> single antenna flexibility. A tuner in no way will improve your SWR
> from the tuner output to the antenna. It improves your SWR from tuner
> input to your transmitter.
>
> 73,
> Mike
> KB5RF
> mwh87120@yahoo.com

Roy Lewallen, W7EL

1501. Re: BIG piece of ferrite-WHERE do I begin

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 04:59:08 UTC
From: Zoran Brlecic <WA7AA@attbi.com>
Message-ID: <3DBE1596.4000703@attbi.com>
Source record: 132337

Joe Strain wrote:
> Electronics Goldmine has a PCB with a piece of ferrite 3' x 5' laid on it.
> What do I do?

Call Ripley's.

1502. Re: Considering adding a vertical to the antenna farm

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 05:23:46 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <806sru05h7cg1pdme2kutp646gi0ec0dh9@4ax.com>
Source record: 132339

On Tue, 29 Oct 2002 04:25:41 GMT, "Jason Hissong"
<jhisson1@columbus.rr.com> wrote:

>So my question is this, would a bad solder joint cause the antenna to be a
>poor performer? The guy who bought my original Eagle DX pulled the coax
>connector right off with little effort. The copper braid in the coax was
>black for about 6". With a properly soldered coax connector, would this
>make a difference?

Sounds like it saw a lot of weather too.

>
>Second question, adding the vertical... would this give me a well rounded
>selection of antennas? (Beam, dipole, vertical).

Are there ever really enough?

>
>Thanks es 73!
>
>Jason Hissong
>N8XE
>

Hi Jason,

I've had one up for nearly 10 years. Elevated 10 or 12 feet and
anchored to the corner of a carport, it has operated satisfactorily on
its higher bands. Facing SW into the weather, it has stood all the
strongest winds without guying. Wind has broken 4 of my Maples in
that same time.

You could have twisted wires together and had better conductivity IF
you had weather sealed the connection. From the description of the
condition of the connection, it sounds like you needed a good solder
job, a good seal job, and a good strain-relief job.

You going to hoist this to the top of your new tower?

73's
Richard Clark, KB7QHC

1503. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 05:45:50 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210282145.3f3d3035@posting.google.com>
Source record: 132340

'Doc <w5lz@cwis.net> wrote in message news:<3DBDB466.41B795D6@cwis.net>...
> Art,
> I think the problem is you're refering to a rotatable
> multiband dipole as a 'tribander', which is usually how
> people describe a three-band multielement beam.
> 'Doc

Well it does appear that way, again antenna confusion.
Don't manufactures sell single element tribanders?
What about two element forms ? If I mentioned comparing
multi elements to single elements then I caused the confusion.
But it does appear that most hams have no interest in
antenna efficiency, thus I am out of step with the majority.
On the other hand if any multiband antenna, single element or
otherwise uses a turning radius which is only used effectively
for one band, then it behooves all antenna people to strive to use
the unused inert length as part of the radiator and thus increase
the gain for the majority of frequencies.This to my mind increases the antenna
gain which thus increases the efficiency with respect to unit length.
Chip made the point that this sort of pursuit will just form multi
lobes which ofcourse is incorrect. When a phase change is incorporated
so that the inert lengths radiate it can increase the gain.
I am pleasantly pleased that some posters are not following the
slamming aproach and sticking to polite antenna type responses.
Good on you Doc
Art

1504. Re: Another vertical question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 06:03:03 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apl8an$159$1@helle.btinternet.com>
Source record: 132341

Roy, your reply is not up to your usual high standard.

Reg.
==========
"Roy Lewallen" wrote
> Do you mean we can't get the answer from program MAXLOSS, run
> immediately, not zipped-up?
==========
> Reg Edwards wrote:
> > "Roy Lewallen" wrote
> >
> >>Elevating radials above the ground reduces loss because it reduces the
> >>current in the ground, and ground has relatively high resistance. The
> >>metal in your roof shouldn't have appreciable resistance at RF, so there
> >>probably wouldn't be any advantage to elevating the radials above it.
> >
> > ==========
> >
> > On the other hand, with high resistance soil such as dry rock and desert
> > sand which have the properties of insulators, the loss in the ground
will
> > again be very low.
> >
> > So what value of soil resistivity results in maximum loss ?
> > ---
> > Reg, G4FGQ
> >
> >
> >
>

1505. Re: A Challenge

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 06:42:46 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3DBE2DE6.D615CF4F@oda.com.au>
Source record: 132342

David or Jo Anne Ryeburn wrote:
>
> In article <3DBD0497.30D15D41@oda.com.au>, owen@oda.com.au wrote:
>
> > Wayne wrote:
> > >
> > > While a bit late, here's one possible antenna.
> > > A 40 meter dipole, tuned for the center of the portion of the band you will
> > > be able to work, and an antenna tuner to use it on other bands.
> > > I use a 40/20 dipole myself, and a tuner to use it on 80, and other bands.
> >
> > I have a similar antenna (without the 20m wires) - a low 40m dipole with
> > the ends lower than the centre.
> >
> > The modeled driving point impedance is 8-j890 ohms at 3.7MHz. It is fed
> > by 17m of RG6, which has a loss of 0.21dB at 3.6MHz. There is about 15dB
> > loss on the feedline in the mismatched state, impedance seen at the ATU
> > end of the feedline is 1.9+j7.9 ohms. A T match tuner should transform
> > this to 50 ohms with a loss of around 4dB.
>
> I haven't checked your antenna impedance or feedline loss figures, nor the
> impedance seen at the end of the feedline. These figures don't surprise
> me.
>
> Note that 1.9 ohms resistance in series with 7.9 ohms inductive reactance
> looks like 34.75 ohms resistance in parallel with 8.36 ohms inductive
> reactance.
>
> An L section should do considerably better than the T match tuner. You

Yes, you are correct in that a well implemented L match is likely to be
better than a similarly implemented T match for such a load. I used a T
match example because that is what most people tend to use as a
"universal" fix it for antenna design problems. The 4000pF required for
an L match is also potentially an issue.

But, my observation was that whilst a 40m dipole fed with coax might
work quite well on 40, you cant just wack a tuner on the tx end of the
coax and expect the combination to work well on 80m, indeed it might
work quite poorly... and no tx end tuner configuration can fix up the
problem that the coax operates at very high VSWR and even moderately
good coax will exhibit very high loss in that situation.

Owen

1506. Where can I buy a cheap used tower in Houston Tx area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 06:49:18 UTC
From: Recordking@Hotmail.com
Message-ID: <e8d89b3f.0210282249.1bf8a875@posting.google.com>
Source record: 132343

I am looking to buy a used 40ft to 60ft antenna in Houston Tx area.
Are their any stores that sell any antenna towers or rohn telescoping
masts in Houston. I have also though about checking out junkyard or
scrap dealers in Houston does know of any that sell towers. I need
any stores or people selling a used antenna for $200 or less.

1507. Re: BIG piece of ferrite-WHERE do I begin

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 06:50:59 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <ndqv9.158026$La5.516298@rwcrnsc52.ops.asp.att.net>
Source record: 132344

3 feet by 5 feet? What's the shipping charge on that?
"Joe Strain" <yodar@cfl.rr.com> wrote in message
news:Bwnv9.20078$fa.471956@twister.tampabay.rr.com...
> Electronics Goldmine has a PCB with a piece of ferrite 3' x 5' laid on it.
> What do I do? Start cutting it into RODS or start winding a HELLUVA lotta
> wire around it for MW - LW DX swl
>
> yodar
>
>

1508. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 07:04:01 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBE32E1.3CD8A511@ieee.org>
Source record: 132345

K9SQG wrote:
> PVC or metallic pipe underground prevents physical damage to the coax from
> rodents, pitch forkes, shovels, etc.

When I lived in Queen Creek, AZ, the gophers ate through the PVC pipe.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1509. Re: Where can I buy a cheap used tower in Houston Tx area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 07:17:14 UTC
From: W6DKN <w6dkn-nospam-@qsl.net>
Message-ID: <svqv9.13292$46.8400@fe01>
Source record: 132346

"DJboutit" <Recordking@Hotmail.com> wrote in message
news:e8d89b3f.0210282249.1bf8a875@posting.google.com...
> I am looking to buy a used 40ft to 60ft antenna in Houston Tx area.
> Are their any stores that sell any antenna towers or rohn telescoping
> masts in Houston. I have also though about checking out junkyard or
> scrap dealers in Houston does know of any that sell towers. I need
> any stores or people selling a used antenna for $200 or less.

Locate and check with the local ham clubs. I have acquired four used but like new Tri-Ex crank up towers from older hams that were moving out of state and wanted to give them to anybody that would take them down and remove them from their property (one was a fully motorized crank down/fold over 70 footer with a Ham IV rotor and all control boxes and cables).

I have also passed on numerous other free or nearly free towers just because I am running out of room to store them... :>)

73 de W6DKN

1510. Re: Collins Radio Antenna Compendium

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 07:38:41 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <jiruRJDBsjv9EAzz@ifwtech.co.uk>
Source record: 132348

Wes Stewart wrote:
>On Mon, 28 Oct 2002 22:11:53 GMT, "Harold E. Johnson"
><W4ZCB@mchsi.com> wrote:
>
>|Thanks, must think about that in reference to a radiator much shorter than
>|1/4 wave, but it probably is that I remember the initial reference wrongly.
>
>Bingo.
>
>From ON4UN's "Low-Band DXing" Third Edition p 9-13:
>
>"The following rule was experimentally derived by N7CL (a friend of
>mine) and seems to be a very sound and easy one to follow. Put
>radials down in such a way that the distance between their tips is not
>more than 0.015 lambda."

Several people have done the same, by looking at the experimental graphs of feedpoint resistance versus length and density of radials. All the graphs curve over when you've laid "enough wire", and then you enter a region of diminishing returns. The transition points from whole families of curves all correlate pretty well with a tip-to-tip spacing of about 0.01-0.02 wavelengths.

That makes some sense, because the spacing between the wires will affect how much the fields can induce return currents in the lossy ground instead of taking the preferred route along your wires. In the nature of radial lines, the spacing near to the centre will be closer than needed, so it's only out at the tips that the effect will show.

However, all this business about how best to use a given total length of wire is academic. Wire's cheap, and in most people's backyards the practical limitations are property boundaries, solid obstructions and backache.

But your mileage may vary... in this case quite literally!

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

1511. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 08:22:37 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <hzrv9.2579$z5.1890463@newssvr28.news.prodigy.com>
Source record: 132347

Art...I understand conceptually what you are trying to convey...that it's important to you what the gain is per unit of length (in wavelengths). Unfortunately, electrically using all the element in a 36' long radiator to get extra gain on 15 and 10 will not give a higher gain per unit-length.

For instance...

Gain on 20 would be 2.1 dbi, gain on 10 would be 3.7 dbi when properly fed. You have doubled the length, but have only increased gain by a factor of ~1.45. Therefore, your gain/unit-length (or FOM, or length efficiency, or whatever you might want to call it) based on the above metric, and using a full size dipole as the reference would be..

1.0 for the dipole
1.45/2.0 = .7225 for the collinear dipoles.

In fact, a short dipole...say .25 wavelength long...would outperform either of the longer ones based on that metric. Gain of the short dipole would be ~1.1 dbi assuming a loading coil with a Q of 200 and a 1" element dia.

That would give a ratio of .79/.5=1.58 for the short dipole.

So, the short dipole with only 1.1dbi gain would have a higher gain/unit-length than either of the others. It could easily be shown that gain/unit-length would keep increasing as the element got shorter up to the point where losses in the loading coil would become excessive...even though total gain would be steadily decreasing.

In the case where you count the entire length, even if it doesn't radiate...as in a tri-band trap dipole...you would admittedly get slightly more gain/unit length...

.5 for dipole
.7225 for collinear dipoles...

But...

Using the gain/unit-length metric, and carrying the argument to its absurb conclusion, to make really "efficient" (length-wise) use of the whole element, instead of trying to use the entirety of a 20m element on 10m...it would make more sense to load a 10m element on 20m ;-)

This obviously only makes sense if size is the most important parameter.

73
--
Larry N8LP

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:85ed38d.0210282145.3f3d3035@posting.google.com...
> 'Doc <w5lz@cwis.net> wrote in message news:<3DBDB466.41B795D6@cwis.net>...
> > Art,
> > I think the problem is you're refering to a rotatable
> > multiband dipole as a 'tribander', which is usually how
> > people describe a three-band multielement beam.
> > 'Doc
>
> Well it does appear that way, again antenna confusion.
> Don't manufactures sell single element tribanders?
> What about two element forms ? If I mentioned comparing
> multi elements to single elements then I caused the confusion.
> But it does appear that most hams have no interest in
> antenna efficiency, thus I am out of step with the majority.
> On the other hand if any multiband antenna, single element or
> otherwise uses a turning radius which is only used effectively
> for one band, then it behooves all antenna people to strive to use
> the unused inert length as part of the radiator and thus increase
> the gain for the majority of frequencies.This to my mind increases the
antenna
> gain which thus increases the efficiency with respect to unit length.
> Chip made the point that this sort of pursuit will just form multi
> lobes which ofcourse is incorrect. When a phase change is incorporated
> so that the inert lengths radiate it can increase the gain.
> I am pleasantly pleased that some posters are not following the
> slamming aproach and sticking to polite antenna type responses.
> Good on you Doc
> Art

1512. Re: Can an ICOM-756 Pro2 be modified to TX outside ham bands?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 10:01:06 UTC
From: PA3HGT <PA3HGT@hotmail.com>
Message-ID: <3dbe5c58$0$23717$fb624cd1@news1.zeelandnet.nl>
Source record: 132349

Please explain ????

"Kanberi" <pti@capnet.com> schreef in bericht
news:3DBC4EB1.53AB3658@capnet.com...
> Which S/N should be stayed away from?
>

1513. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 10:55:48 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dbe6934$0$4252$ba620e4c@news.skynet.be>
Source record: 132350

If you figure out the losses in a 450 ohms line, you will see that it's quite below 0.1 dB in most of SWR and cable length cases (in HF) so ...

73 de ON5MJ - Jacques

1514. Re: seeking a meter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 11:05:44 UTC
From: Dean Elwood <dean@legallyspeaking.co.uk>
Message-ID: <aplq27$280$1@sparta.btinternet.com>
Source record: 132351

I'd suggest looking on Ebay for an old AVO. I've seen them go on there for
silly money (<$20 sometimes).

Every radio ham should have one anyway.

D

"J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote in message
news:Qxnv9.2080$qD2.489485@news20.bellglobal.com...
> OT - maybe it's for a PS for an antenna... ;-)
>
> "Louis" is
> > seeking an old style voltmeter 0 - 15volts dc or 0 - 20.
> > needle type, not digital. simpson or weston made them.
> > square or round. basially the meter is a panel type that just tests
> > voltage. not a multimeter with a switch.
> > if you have oen pls email me
>
> "KC5CQW" suggested...
> > Radio Shack sells one for about $10 or less.
>
> Actually US$12.99
> www.radioshack.com
> Type in product number 22-410 at the top
> (specs*, hole template)
>
> * Interesting note: "You must connect the 15 kOhm resistor (supplied)
> between the voltmeter and the voltage supply being measured." (.: 1mA
> movement.)
>
> or Cdn$17.99 in Canada
> www.radioshack.ca/estore/Product.aspx?product=2200410
> (nice big picture)
>
> These exact meters were being sold for Cdn$3 a few months back during
their
> 'Inventory Blowout' (at least in Canada). Ask around and maybe you'll
find
> someone that bought several because they couldn't resist a deal.
>
>

1515. Re: Suggested Content for www.n1ir.com (73 to All, Chip N1IR)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 11:57:25 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <43usrusc08qc6dcsiatusiq3vgfame1ove@4ax.com>
Source record: 132352

On Sun, 27 Oct 2002 13:27:25 -0600, 'Doc <w5lz@cwis.net> wrote:

>
>
>"W.G Ewald",
> And your point is??
> 'Doc'

Hiya, Doc

"A tale told by an idiot, full of sound and fury, signifying nothing"
(i.e., the Fractal Saga)

1516. Re: Where can I buy a cheap used tower in Houston Tx area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 12:04:13 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <1Xi+Parh=ycWjfTn3=hsIRfe4SEs@4ax.com>
Source record: 132353

Recordking@Hotmail.com (DJboutit) wrote:

>I am looking to buy a used 40ft to 60ft antenna in Houston Tx area.
>Are their any stores that sell any antenna towers or rohn telescoping
>masts in Houston. I have also though about checking out junkyard or
>scrap dealers in Houston does know of any that sell towers. I need
>any stores or people selling a used antenna for $200 or less.

You can check with Houston Amateur Radio Supply up in Spring,
http://texasparadise.com/hars/ I don't think the guy there sells towers, but he
may be able to point you to someone. Otherwise, the nearest place may be Texas
Towers in Dallas.

Bob
k5qwg

1517. What'e your favorite method to bring coax into the shack?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 12:29:48 UTC
From: gbrown@nc.rr.com
Message-ID: <3dbe7dcf.29884862@news2.southeast.rr.com>
Source record: 132354

Looking for any "hints and kinks" the group may wish to share. So far I have used the dryer vent, the sewer vent pipe on the roof, and the usual hole in the wall over the past 40 years. And, I've slammed the window sash down on twin-lead!
I've also heard of metal plates and plexiglass inserts for window frames, in basements.

Thanks,
Gary
K4GPB

1518. Re: BIG piece of ferrite-WHERE do I begin

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 12:39:26 UTC
From: fractenna@aol.com
Message-ID: <20021029073926.07646.00001312@mb-mn.aol.com>
Source record: 132355

>
>Electronics Goldmine has a PCB with a piece of ferrite 3' x 5' laid on it.
>What do I do? Start cutting it into RODS or start winding a HELLUVA lotta
>wire around it for MW - LW DX swl
>
>yodar
>

Stealthify an outhouse:-)

73
Chip N1IR

1519. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 12:51:50 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210290451.41ae102e@posting.google.com>
Source record: 132356

Roy Lewallen <w7el@eznec.com> wrote in message news:<urrtuatcgc5c2b@corp.supernews.com>...
> Art Unwin KB9MZ wrote:
> > . . .
> > Jim Ihave only provided a tickler for thought, no body likes change
> > so everybody uses different terms where all can justify its merits.
> > At the moment we ignor efficiency yet we all know that the ends of a
> > radiator
> > are the most inefficient portion of a half wave radiator when
> > comparing
> > to unit length.
> > Art
>
> Speaking of using different terms. . .
>
> "Efficiency" has a very well known and universally accepted definition
> when applied to antennas: it's the fraction of applied power which is
> radiated. By this definition, an antenna having portions which don't

snip

You probably correct Roy. I suppose we will all have to accept that
"There is no BEST antenna" that all people can relate to, just
opinions
Art.

1520. Re: Where can I buy a cheap used tower in Houston Tx area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 12:56:00 UTC
From: richardharrison@webtv.net
Message-ID: <12122-3DBE8560-355@storefull-2313.public.lawson.webtv.net>
Source record: 132358

DJboutit wrote:
"I need any stores or people selling a used antenna tower for $200 or less."

Consult Dorothy`s swap net on 2 meters or almost any of the many 2-meter nets on area repeaters. Most have a sell, swap, or trade segment.

Best regards, Richard Harrison, KB5WZI

1521. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 13:07:17 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210290507.3dbb0463@posting.google.com>
Source record: 132357

Richard Clark <kb7qhc@attbi.com> wrote in message
news:<97qrruohal6sdv1cig5i5s2vqspp1ia0ia@4ax.com>...
> On 28 Oct 2002 17:23:24 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
> wrote:
>
> >Richard there you go again trying to appear extremely smart and deride
> >anything that does not appear to be up to your standards.
>
> I am responding to the failure of much lower standards than that.
>
> > I remember
> >sometime ago that you rejected gain terminology because it was not the
> >one you like to use.
>
> Actually it was one you invented for the occasion and no one else used
> before - or since. Looks like you've forgotten it too.
>
> >Presumably you reject
> >that a extended zepp cannot get extra gain by providing two half wave
> >in phase.
>
> Then again, presumably I don't.
>
> >I can therefore understand that you cannot except that an element on a
>
> the word is accept (and yes I except which is the opposite of cannot
> except).
>
> >tribander can provide more gain by using all the physical length to
> >radiate.
>
> Hi Art,
>
> This is the height of ridiculousness.
>
> You are using what is called the Strawman argument. You alone have
> made the choice of this so-called "tribander." You seem to be more
> than willing to use terms of your own invention and sit back wandering
> why no one understands - it is worse when you use existing terms with
> new meanings. You would gain much if you observed other advice here
> to study the topic.
>
> But let's get back to this Strawman of your choice - tribander.
>

> It is obvious that you have chosen a poor example to take apart that
> allows you to then make a discovery hidden to us all (yeah, sure).
>
> >tribander can provide more gain by using all the physical length to
> >radiate.
>
> This obviously begs the question: why did you make this poor choice in
> the first place? Imagine indeed those pitiful, useless two outboard
> sections that do nothing for the top band operation! Art, can you
> imagine WHY they call it a tribander? If only they would just go away
> so they did not upset the turning radius! Only the kid in the street
> would notice the King had no clothes on. You chose the "tribander" to
> only condemn it for having other elements to cover two more bands?
> That is precious by half. Is the next thing on the plate trying to
> convince us that the 10M section with its 10M trap is enough - why
> don't we just cut off the rest?
>
> Art, I know what you are talking about. It is poor set-up for your
> half thought out propositions where you have to cleverly craft a
> problem your invention will solve. The problem with THAT problem is
> that no one suffers it because they have the smarts to stay away from
> it in the first place. Folks here and around have already optimized
> their antennas for maximum turning radius efficiency - Hams in general
> aren't the hayseeds you seek to convert.
>
> 73's
> Richard Clark, KB7QHC

As always thank you for your contribution. At least this posting
has provided a brief respite to Chip and others from the brunt of
your missives. As far as your comments of above you can run but
not hide, this user group have archives.
Art

1522. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 13:10:55 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <3DBE88DE.3B931C39@ziplog.com>
Source record: 132359

Got news for you you Mikey!

Mike wrote:

> I live in an area that has a fair amount of wildlife, and have had
> problems with gophers (I assume) chewing on buried and surface cables.
> They seem to be attracted to current, even at low levels. The only
> type of cable they don't seem to mess with is shielded direct burial
> cable. That stuff has a very hard, thick jacket. Before I install
> 150 feet of expensive coax for an HF antenna, I wanted to ask if
> anyone has had problems with rodents chewing their coax.
>
> I know conduit would prevent wire chewing, but it is so much easier to
> lay the coax on the ground.
>
> ----------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
> http://www.newsfeed.com The #1 Newsgroup Service in the World!
> -----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

It's arguable that squirrels are the worst! No only do they nibble at what is on the ground, but they chew holes in the insulation and shield from what is up in the air as well! Over many, many attacks and years of 'em I've discovered a couple of things. First, they almost never chew on anything but horizontal runs of the coax! If you pay attention to them in the city environment, they use the phone cables and so on as aerial tramways. Only in the ham radio venue, a coax line strung horizontally will almost always wind up with holes in it! They wander down it .. and chew too! Not all the time! You will discover that if you bind a guy wire to the horizontal run with weatherproof tie wraps and use it together with the coax, they will virtually always leave the pair alone and not nibble on it!

The second interesting tactic you can take to reduce the damage comes from a separate factoid. If you look at lots of hits, you will discover that they almost always do not go after the OLD cable! It is only the new stuff! Sniff... But wait, there's more here! You'll discover that you can take a rag full of Tabasco sauce, the hottest stuff you can find. soak the cable with full coverage of the infernal stuff after/as it goes up or down on the ground.

Yep! It seems to repell the varmints. That lesson learned, you can take an insecticide sprayer. Make up a strong brew of the evil stuff and liquid dishwasher soap for an emulsion ... giggle. Wander around spraying the cable on the ground with the brew every now and then. They do not apparently like Tabasco sauce and will leave you nice cable alone. As the cable ages and the strong odor of the new vinyl decays normally, they will usually leave it alone. From my experience it is the odor of the casing that seems to attract them to chew on it.

Just like deer around a watermelon patch, all they want to do is poke holes in it! Ever watch deer in a melon patch? They'll poke a hole in melon after melon with a hoof and sniff-sample every one of them. Never eat really anything.

Can't say my suggestions totally stop the pests for coax left laying around lose, but it works well here.

W5WQN

--

--> Sleep well; OS2's still awake! ;)

Mike Luther

1523. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 13:39:41 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210290539.33175aa2@posting.google.com>
Source record: 132360

"Larry Phipps" <larry@telepostinc.com> wrote in message
news:<hzrv9.2579$z5.1890463@newssvr28.news.prodigy.com>...
> Art...I understand conceptually what you are trying to convey...that it's
> important to you what the gain is per unit of length (in wavelengths).
> Unfortunately, electrically using all the element in a 36' long radiator to
> get extra gain on 15 and 10 will not give a higher gain per unit-length.
>
> For instance...
>
> Gain on 20 would be 2.1 dbi, gain on 10 would be 3.7 dbi when properly fed.
> You have doubled the length, but have only increased gain by a factor of
> ~1.45. Therefore, your gain/unit-length (or FOM, or length efficiency, or
> whatever you might want to call it) based on the above metric, and using a
> full size dipole as the reference would be..
>
> 1.0 for the dipole
> 1.45/2.0 = .7225 for the collinear dipoles.
>
> In fact, a short dipole...say .25 wavelength long...would outperform either
> of the longer ones based on that metric. Gain of the short dipole would be
> ~1.1 dbi assuming a loading coil with a Q of 200 and a 1" element dia.
>
> That would give a ratio of .79/.5=1.58 for the short dipole.
>
> So, the short dipole with only 1.1dbi gain would have a higher
> gain/unit-length than either of the others. It could easily be shown that
> gain/unit-length would keep increasing as the element got shorter up to the
> point where losses in the loading coil would become excessive...even though
> total gain would be steadily decreasing.
>
> In the case where you count the entire length, even if it doesn't
> radiate...as in a tri-band trap dipole...you would admittedly get slightly
> more gain/unit length...
>
> .5 for dipole
> .7225 for collinear dipoles...
>
> But...
>
> Using the gain/unit-length metric, and carrying the argument to its absurb
> conclusion, to make really "efficient" (length-wise) use of the whole
> element, instead of trying to use the entirety of a 20m element on 10m...it
> would make more sense to load a 10m element on 20m ;-)
>

> This obviously only makes sense if size is the most important parameter.
>
> 73
> --
> Larry N8LP
>
>

Brilliant response, so well thought out.
Yes I am interested in radiator unit lengths because the majority of
hams
do not have the luxury of large plots of land, so getting the maximum
gain
given their lot size, is the primary goal.
Your point on shortened radiators gets to the very heart of
obtaining
maximum gain per unit length. Zukov stated that maximimum efficiency
is when radiation efficiency is from a single point, obviously he was
extrapolating from the fact that max radiation efficiency per unit
length is at the peak current point, and with that in mind efficiency
per unit length can be gained by removing the radiator ends (capacitor
hats e.t.c.) or changing the phase at judicious points.
Thanks Larry

Art

1524. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 14:06:38 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210290606.2e6315e1@posting.google.com>
Source record: 132362

aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message
news:<85ed38d.0210281305.51ac8994@posting.google.com>...
> Jim, I am going to assume that your questions are sincere and not an
> attempt to do something else so I will respond to your post.
>

Art,

Yes, my questions were sincere. I read your post 3 times before I responded. Even then I did not entirely understand what you were saying.

As others have pointed out, you used unconventional definitions for common terms, so naturaly it will be difficult for everyone to understand. In order to communicate ideas effectively we must all agree to a common language.

I have hesitated on this group to 'wave my own flag' because I do not want to sound arrogant, but I have been an engineer for almost 30 years, and a Ham for longer than that. One of the first 'rules' of engineering, that every engineer must know, is that you first study how and why things are done the way they are. ("Those who ignore history are condemed to relive it.") Only then are you prepared to do something new, and any engineering invention is a compromise between requirements. Why some of us appear smarter than others is not that we are more intelligent (hmm, well maybe some of us are ;-)) but we have years and decades of experience in learning the hows and whys of the way things work.

On to antennas...

An antenna does not create energy. When an antenna is said to have gain, what that means is that energy is 'borrowed' from one direction and 'directed' in another direction. A 20 dB gain antenna does not radiate any more energy than a 3 dB gain antenna (with the same transmit power). As I stated previously, all antennas are a compromise between requirements. There is no perfect antenna.

The triband trap dipole that you describe was designed with these compromises in mind. It is a relatively inexpensive low gain bidirectional antenna that will work on three bands. On each band it is essentially a half-wave dipole. For ease of use, it was designed to work with standard 50 ohm coax. Change any part of the design and it would no longer meet its purpose. Instead of thinking of the outside parts being wasted on 10 meters, why not think of the 10 meter part being used to hold up the 15 and 20 meter section? In that way,

the antenna has a higher 'figure of merit'. You get 2 extra bands for a little more than the cost of a 20 meter dipole.

As another post pointed out, 'efficiency' is a measure of how much energy is radiated vs how much is applied to an antenna. If you try to compare a dipole with an extended double Zepp, the Zepp will have more gain, but is not necessarily more efficient. You should also consider the matching network required to allow the use of 50 ohm coax. It will certainly subtract from the efficiency.

Jim
N8EE

1525. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 14:10:04 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210290610.39c326a2@posting.google.com>
Source record: 132363

fractenna@aol.com (Fractenna) wrote in message
news:<20021028191646.27717.00001046@mb-mf.aol.com>...
> Unfortunately, Mike, it pays to use PVC pipe.
>
> As soon as even a little nibble is done on the jacket, water seeps in and
> destroys the coax. Its slow, but a year may go by until you wonder why the SWR
> is so good but you can't break pile ups anymore...
>
> Water seepage is the real problem. The critters are just the delivery system.
>
> Try renting a Ditch Witch and the pipe will go in pronto.
>
> 73,
> Chip N1IR

For some reason animals are attracted to new PVC.

We have had problems in the past with our cat chewing practically
every electric cord we have, particularly brand new ones.

Many years ago our high school ham club did the early set up for field
day, complete with brand new coax. When we went back the next weekend
for the contest we found that the coax was full of teeth marks.

Jim
N8EE

1526. New home suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 14:24:58 UTC
From: Scott Vanzandt <zandt@midsouth.rr.com>
Message-ID: <oa6tru8v80053to55382pj3kgrg6o861d1@4ax.com>
Source record: 132364

We are looking at building a new home. Other than deed prohibitions, what do I need to look at having done to make life easier for my radios? Is there some type of built in I can have installed to pass coax etc into the shack? Normal conduit would never fit the needed coax. Should I prewire coax runs through the walls and then join them to the antenna line to come in or how do most do this. I have drilled and pulled so many runs of coax and cat 5 and telephone in the last year that I hope to make things easier this time building from the ground up.
N2WMD
Scott

1527. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 15:05:30 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apm83p$n8l$1@sparta.btinternet.com>
Source record: 132365

"Nelson Gietz" wrote > Hi,
> I'm considering winding an "un-un" tranformer, for listening to .54-54
> mHz on
> a random wire. Thought of using a ferrite ring from a dead computer power
> supply. Good idea or should I order up a specific ring?
==========

An "un-un" in that application serves no useful purpose. Who told you otherwise ? An "un-un" salesman ? An old-wife who has been conned by the "un-un" adverts but who has never used one ?

If you use a ring of power supply grade you will certainly introduce a loss which increases with frequency.

If you MUST introduce a gadget between the random wire and a receiver then buy or make a simple preselector. (If your receiver does not have one already built in.) Depending on receiver performance without a preselector there may be a considerable advantage in using one.

A preselector helps to prevent the many strong signals, to which the receiver is NOT tuned, from over-loading the receiver input and causing interference with weak wanted signals to which the receiver IS tuned.

Don't bother with a "tuner" intended only to transform the input impedance of an antenna to 50 ohms. The amount of pre-selectivity it may introduce is negligible.

Reg, G4FGQ

1528. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 15:05:30 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apm83q$n8l$2@sparta.btinternet.com>
Source record: 132366

> For some reason animals are attracted to new PVC.
==========
I understand there are creatures at the bottom of the Seas which take a
fancy to plastic-sheathed phone cables.

Reg.

1529. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 15:19:53 UTC
From: fractenna@aol.com
Message-ID: <20021029101953.26004.00001734@mb-fc.aol.com>
Source record: 132367

>Many years ago our high school ham club did the early set up for field
>day, complete with brand new coax. When we went back the next weekend
>for the contest we found that the coax was full of teeth marks.
>
>Jim
>N8EE
>

Must have been soft and chewy with a polyfoam nougat center! mmmMMM!

If someone can figure out why animals eat what they eat, it would solve one of those cosmic puzzles.

My speculation is that rodents eat this stuff because they have a prime directive to eat anything...and that the time scale for getting cancer from it is longer than their lifetimes.

Its a huge recycling act of organic material.

BTW, Mike's Tabasco suggestion sounds great and indicates the lack of taste of the rodentia. It also explains why my peppers can dry on the vine for months and months and months.

73,
Chip N1IR

1530. Re: New home suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 15:23:00 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailnospamorama.com>
Message-ID: <T5Bv9.1229$cz2.1226@news.bellsouth.net>
Source record: 132277

Friend used 2 inch PVC in the walls. He modified a 4x4 plastic electrical box (cut hole and glued a fitting on it. used a plastic cover. Drilled to let cable enter the room. Use a 4x4 at the turns in the conduit in the attic and to use as a pull box. This did limit him to, I seem to remember to 3 RG-1 sized cables.

--
73,
Chuck
KE4ETH
Remove the obvious from Email.

"Scott Vanzandt" <zandt@midsouth.rr.com> wrote in message news:oa6tru8v80053to55382pj3kgrg6o861d1@4ax.com...
> We are looking at building a new home. Other than deed prohibitions,
> what do I need to look at having done to make life easier for my
> radios? Is there some type of built in I can have installed to pass
> coax etc into the shack? Normal conduit would never fit the needed
> coax. Should I prewire coax runs through the walls and then join them
> to the antenna line to come in or how do most do this. I have drilled
> and pulled so many runs of coax and cat 5 and telephone in the last
> year that I hope to make things easier this time building from the
> ground up.
> N2WMD
> Scott
>

1531. Re: New home suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 15:36:33 UTC
From: Ed Juge/NM <ed@juge.org>
Message-ID: <CZxv9.10297$NV.182732@news.direcpc.com>
Source record: 132368

Deed restrictions are the big bugaboo since PRB-1 specifically excludes them. The one I ran into wasn't against antennas, it was against "structures more than one story tall without prior written permission from the architecture control committee." So READ CAREFULLY! (In our case, we had prior written permission before buying our lot.) One neighbor decided he wanted our lot and used my proposed two vertical antennas to start a campaign to drive us off and the architecture committee withdrew its approval. We could have gone to court and probably forced him to reinstate it but decided we didn't want to live in that particular community of assholes. Sold the lot (not to the neighbor) at double what it cost us and left.

I know of other cases where cities and counties have issued permits, then withdrew them part way through tower construction, so there are no guarantees. It's a minefield out there!

Look also at your community (city and county) ordinances... they can contain height limitations and/or specific antenna restrictions. This is the one PRB-1 can help with but it can be a lengthy (and costly if a court is involved) process.

Or, just do what we did... move out to the country on a little acreage. ;-) I've been a city boy all my 65 years. Didn't think I'd ever take to country living. Wife talked me into it. So far, we're absolutely loving it! Peaceful. Quiet. No traffic. Scenic. No pollution. No light pollution. NO TRACE of radio noise. I'm feeling more laid-back than I can ever remember.

Ed, W5EJ

"Scott Vanzandt" <zandt@midsouth.rr.com> wrote in message news:oa6tru8v80053to55382pj3kgrg6o861d1@4ax.com...
> We are looking at building a new home. Other than deed prohibitions,
> what do I need to look at having done to make life easier for my
> radios? Is there some type of built in I can have installed to pass
> coax etc into the shack? Normal conduit would never fit the needed
> coax. Should I prewire coax runs through the walls and then join them
> to the antenna line to come in or how do most do this. I have drilled
> and pulled so many runs of coax and cat 5 and telephone in the last
> year that I hope to make things easier this time building from the
> ground up.
> N2WMD
> Scott
>

1532. Re: What'e your favorite method to bring coax into the shack?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 16:19:45 UTC
From: Randy Ott <randy@iscdata.com>
Message-ID: <Byyv9.1476$8J2.542788745@newssvr11.news.prodigy.com>
Source record: 132269

Spool in one hand, beer in the other.

(sorry)

"Gary Brown" <gbrown@nc.rr.com> wrote in message
news:3dbe7dcf.29884862@news2.southeast.rr.com...
> Looking for any "hints and kinks" the group may wish to share. So far I
have
> used the dryer vent, the sewer vent pipe on the roof, and the usual hole
in the
> wall over the past 40 years. And, I've slammed the window sash down on
> twin-lead!
> I've also heard of metal plates and plexiglass inserts for window frames,
in
> basements.
>
> Thanks,
> Gary
> K4GPB

1533. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 16:29:28 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210290829.39d1c0d@posting.google.com>
Source record: 132270

jim.bolinger@lintek.aeroflex.com (JLB) wrote in message
news:<8d5ec8a2.0210280535.2786935a@posting.google.com>...
> aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message
news:<85ed38d.0210271855.3f0d3f13@posting.google.com>...
> > When using 'Gain' as a comparison term
> > many get mixed up with 'over ground',
snip

> ...And maybe take a class in Antenna Theory first?
>
>
> Jim
> N8EE

Yes Jim I have studied antenna theory so maybe this is a good time
to bring you up to par
The first run at antennas was to form a long wire as an antenna
but it was found that certain parts of the antenna produced
subtractive gains and the Yagi provided a solution for that which
started down the road to the ideal situation of getting maximum
efficiency by reducing element lengths down to a single point as
with a flash light or a lazer. There are a few attempting this pursuit
such as the EH antenna, the contra-wound and yes even the fractal.
In the main however the hobby has gyrated to bigger is better
regardless of efficiency. We also ignore aproaches to simplify our
construction of antennas of which enough is known to tell us that
only skin depth is of real concern and we should wean away from
aluminium tubing to lighter materials to carry the skin.
Of course many attempts of improvement fail but snide remarks do
not help. I was particular interested in how one person added
capacitors along the length of a antenna in a attempt to install many
phase changes in the hope that the radiation current curve would
become a straight line, A wonderfull concept that was poorly thout out.
Ofcource we do have examples where people have nullified negative radiation
such as the extended zepp ie. better efficiency tho I am bewildered why
capacity hats are not used. We also have long wires (bobtail) that
does a similar thing making use of phase changes to remove negative
radiation and increaseefficiency per unit lengtjh.

1534. Re: Collins Radio Antenna Compendium

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 16:37:15 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <5ndtrugirn5enu6stcl21vno3bl9h0t2qr@4ax.com>
Source record: 132271

On Tue, 29 Oct 2002 07:38:41 +0000, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

[snip]
|
|That makes some sense, because the spacing between the wires will affect
|how much the fields can induce return currents in the lossy ground
|instead of taking the preferred route along your wires. In the nature of
|radial lines, the spacing near to the centre will be closer than needed,
|so it's only out at the tips that the effect will show.

That's the way I look at it too, however, the same reference has some
discussion about using a solid plate under the antenna.
|
|However, all this business about how best to use a given total length of
|wire is academic. Wire's cheap, and in most people's backyards the
|practical limitations are property boundaries, solid obstructions and
|backache.

I'm currently in the process of installing a vertical for 40/80 meters
and have yet to decide whether to elevate or bury the radials. When
you see the cactus patch I'm working in, you can see that in addition
to backaches there can be a lot of other aches too if one bends in the
wrong direction.
|
|But your mileage may vary... in this case quite literally!

Very punny.

1535. Re: New home suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 16:58:46 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <e2btrugp9a24tjhvtn0ud9egiv38oeaovg@4ax.com>
Source record: 132272

On Tue, 29 Oct 2002 14:24:58 GMT, Scott Vanzandt
<zandt@midsouth.rr.com> wrote:

>We are looking at building a new home. Other than deed prohibitions,
>what do I need to look at having done to make life easier for my
>radios? Is there some type of built in I can have installed to pass
>coax etc into the shack? Normal conduit would never fit the needed
>coax. Should I prewire coax runs through the walls and then join them
>to the antenna line to come in or how do most do this. I have drilled
>and pulled so many runs of coax and cat 5 and telephone in the last
>year that I hope to make things easier this time building from the
>ground up.

Scott, all I have to ask is "what are you prepared to spend?"

My take on this is "Safety First." Figure out where your house
electrical ground is supposed to be. Invest in a really nice ground
system, not just what's legal under your local electrical codes.

Then, set up an antenna cable entrance plate. If your station is in
the basement this can work very nicely by placing said entrance next
to the ground system. Place all your lightning arrestors and antenna
switches on this entrance plate and then attach one very short,
straight ground strap to the house electrical ground.

Plan on keeping the antennas away from the house. If I were in your
shoes, I'd plan on a set of steel conduits to whatever towers you may
use. Take care to seal up those conduits with something that critters
don't like. You could try spraying lots of hot sauce in to the
electrician's putty and using that to seal up the conduit.

As a "just for grins" system, consider a separate DC battery system
with a battery charger on a timer designed to float charge the
batteries. This will give you emergency power, it will effectively
isolate your shack electrical system from the rest of the house and
it's not particularly expensive.

73,

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

1536. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 17:17:12 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210290917.78f46d39@posting.google.com>
Source record: 132273

> ...And maybe take a class in Antenna Theory first?
>
>
> Jim
> N8EE

Ooops, the other posting slipped away without me finishing.
So to continue
My object in antennas centers on efficiency
per unit length (gain) in a similar fashion as the zepp but to make
radiating length irrelevent (A loop does this also)
When I achieved this and shared the concept some treated it
as heresy and derided me in the hope that I could be burned
at the stake. Eventually somebody modelled it and confirmed
that it stayed bi directional even tho frequency changed.
Some reluctently agreed that I had achieved my aim but then
sniping occured again when I committed heresy by pointing
to my increased gain, when I thought all understood that phasing
produces gain per unit length i.e. the collinear gain aproach
So yes I understand antennas and am pushing the envelope
with respect to efficiency and unit length, you have the choice
of proving me as an idiot but I am not Joan of Arc that will
allow you to burn me at the stake. So why don't we stop this
pattern of slamming people in this antenna group for one reason
or another in futile attempts to muzzle.
If you really believe that I am deficient in knoweledge and
should study up more on antennas, be a bit more constructive
so that interchange can be more pleasant.
Best regards
Art Unwin KB9MZ......XG
in your response.

1537. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 17:40:07 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <vehtrus0qjtajhr268fsa0ruvu423aubqj@4ax.com>
Source record: 132274

On 29 Oct 2002 05:07:17 -0800, aunwin@insightbb.com (Art Unwin KB9MZ) wrote:

>
> As always thank you for your contribution. At least this posting
> has provided a brief respite to Chip and others from the brunt of
> your missives. As far as your comments of above you can run but
> not hide, this user group have archives.
>Art

Hi Art,

I can walk too (you certainly make a lot of presumptions). You are right about the rest of the nut fringe getting a vacation (but that actually comes from the general vacuity they present - their nature abhors facts).

One thing about my comments and the content of the archive, as you put it, there are few genuinely prepared to respond to them in either english or technical and your correspondence is certainly a hallmark of this trend. Do you except this? ;-)

73's
Richard Clark, KB7QHC

1538. Re: seeking a meter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 18:33:40 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210291033.1c7b597c@posting.google.com>
Source record: 132275

Louis<lou1@westnet.com> wrote in message
news:<yARu9.1558$Ve3.1105727@monger.newsread.com>...
> hi!
>
> am seeking an old style voltmeter 0 - 15volts dc or 0 - 20.
> needle type, not digital. simpson or weston made them.
> square or round. basially the meter is a panel type that just tests
> voltage. not a multimeter with a switch.
> if you have oen pls email me
>
> thanks
>
> louis

Do mean a voltmeter or just a meter movement?

If you want just a panel mounted meter movement, most of them measure current, from a few microamps to a few hundred milliamps. To measure voltage you have to put a resistor of the proper value in series.

Don't be fooled by what the numbers are on the face of the meter. That is just a little piece of paper, and does not directly reflect the range of the movement. However, there are usually some tiny numbers in one corner that will tell you the actual characteristics.

To make the numbers on the piece of paper meaningful you have to use the characteristics to calculate the required resistor (for measuring voltage). For example, if the characteristics say '10 mA FS 1kohm' and you want full scale to be 15 volts, that means it has a resistance itself of 1k Ohm and 10 mA will cause full scale deflection. You will then need an external 1k resistor (in series) for full scale to be 20 volts.

If you can't find a meter with the correct scale printed on it, make you own. I think there was a post on rec.amateur.homebrew a short time ago on this topic.

Jim
N8EE

1539. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 19:16:47 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DBEDE9F.3B91E796@cwis.net>
Source record: 132276

Art,
If there were some purpose to your making up
your own terminology rather than using the one
commonly accepted one, you would probably have
much more success in getting your ideas across
to the rest of us. If you keep going as you
are, most of us spend more time trying to decipher
your description than the idea you're trying to
get across to us. As it is, you're just wasting
your time and ours.
'Doc

1540. JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 19:42:32 UTC
From: Vic Fraenckel <vfraenc1@nycap.rr.com>
Message-ID: <IwBv9.40490$c51.11101125@twister.nyroc.rr.com>
Source record: 132278

I am interested in JPole antenna because I support a manned gas (hydrogen) balloon that participates in long distance (100's of miles or more) competition. I need to support voice communications in the 154MHz region at about 10 watts, APRS transmissions in the 2Meter Ham band at 5 watts and Aircraft communications in the 123MHz region at 10 watts occasionally boosted to 20 watts if needed. The average altitude for the balloon is 5-6000 feet but can range up to 15,000 feet and down to 2-300 feet. For many years we have used dipoles worked fine but were "spikey" in the physical sense that subjected the balloon and crew (2 man) to possible physical injury especially during launch and landing. I got onto JPoles two years ago because they could be fabricated from TV Twin Lead and a length of coax. They proved to be safer and were cheap to build. The JPoles were also somewhat luighter than the dipole stuff we were using which was a small bonus.

I would like to hear some comments concerning their use and usefulness.

Any enlightenment will be appreciated.

Vic
--

Victor Fraenckel - The Windman vfraenc1@nycap.rr.com
KC2GUI www.windsway.com

Home of the WindReader Electronic Theodolite
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"Victory at all costs, victory in spite of all terror, victory however long and hard the road may be; for without victory there is no survival."
- Winston [Leonard Spencer] Churchill (1874 - 1965)

Dost thou not know, my son, with how little wisdom the world is governed?
-Count Oxenstierna (ca 1620)

1541. when does small size really reduce radiation?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 20:12:17 UTC
From: Henrik <henrik>
Message-ID: <3dbeeba0$0$34825$edfadb0f@dspool01.news.tele.dk>
Source record: 132280

Hi,
having invested in an automatic tuner (SG-239), I am wondering about the needs of size to secure radiation efficiency....

It made a big impression on me to read an earlier mail here from "Reg", to high pressure clean your brain of the magic of the G5RV....and just erect the biggest dipole as high as possible.....as I really feel we have a statement of general truth here!

I would appreciate comments to the above statement, when I use the tuner (coax fed) at the aerial....what it brings to make a loop (in the same space) compared to the dipole.....with the view to secure highest possible radiation of RF, and quietness of reception.

When does size really become critical...is it the 1/3 of a wavelength for both elements/loop circumference...before radiation is significantly compromised, when the match is secured at the antenna with the auto tuner?

Thanks in advance for your competent comments.
Henrik.

(I filed a similar question at the tuner makers forum, but it is not that populated it seems, so I hope it is OK to ask here too (www.sgcworld.com))

1542. Re: What'e your favorite method to bring coax into the shack?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 20:12:18 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <4OicnWDjMOn7diOgXTWcoA@comcast.com>
Source record: 132279

Gary,
I use UHF bulhead connectors to bring the signals into the house (actually garage). The bulkheads go through the rear garage wall. Cables with 259 connectors screw into the bulkheads from inside and from outside. There are 4 of these. Instead of putting a big washer on each bulkhead, I have about a 2 x 6 inch piece of aluminum sheet (with 4 holes drilled in it). One of the mounting screws for the aluminum sheet connects to a ground strap, on the outside. To keep it neat, I have a second, identical, aluminum plate on the inside.

The nice thing is I can unscrew all the coaxes from the outside, and be completely lightning proof. OK, if it is alrerady raining, I do it on the inside. I found the 2 inch bulkheads won't quite reach through the siding and plywood, so had to go up to the next size. You can buy bulkhead connectors from Cablexperts. The whole ouside of the bulkhead connector is threaded with the same pitch as a 259 connector. They give you 2 nuts that go on there for nounting.

I have one antenna at the other end of the house, where I drilled a hole from the outside into the basement, next to the telephone and cable wires. Wall is too thick to put a bulkhead there.

Tam/WB2TT
"Gary Brown" <gbrown@nc.rr.com> wrote in message
news:3dbe7dcf.29884862@news2.southeast.rr.com...
> Looking for any "hints and kinks" the group may wish to share. So far I
have
> used the dryer vent, the sewer vent pipe on the roof, and the usual hole
in the
> wall over the past 40 years. And, I've slammed the window sash down on
> twin-lead!
> I've also heard of metal plates and plexiglass inserts for window frames,
in
> basements.
>
> Thanks,
> Gary
> K4GPB

1543. Re: What'e your favorite method to bring coax into the shack?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 20:12:28 UTC
From: Andy KC2SSB <vhfradiobuff@yahoo.com>
Message-ID: <8oqtru85csf8gn5p19vqai3asap700cveu@4ax.com>
Source record: 132281

On Tue, 29 Oct 2002 12:29:48 GMT, gbrown@nc.rr.com (Gary Brown) wrote:

>Looking for any "hints and kinks" the group may wish to share. So far I have
>used the dryer vent, the sewer vent pipe on the roof, and the usual hole in the
>wall over the past 40 years. And, I've slammed the window sash down on
>twin-lead!
>I've also heard of metal plates and plexiglass inserts for window frames, in
>basements.

I have two windows in my shack. One has an air conditioning unit.
Under the AC unit are two slabs of wood, to keep the AC unit off of
the ledge, level and to provide some support. There is a small gap in
between the two pieces of wood. I have 5 lengths of RG-8 coax coming
in between the wood and under the AC unit, with a bunch of insulation
stuffed in the spaces to keep the heat/AC in the room. My other option
was to run the coax into my crawlspace under the house, and drill a
hole in the floor of the shack, much in the same way that the TV cable
comes in.
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com

1544. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 20:21:07 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dbeedb5$0$6010$ba620e4c@news.skynet.be>
Source record: 132282

Vertical Jpoles have some more horizontal gain vs vertical dipoles but at this height omnidirectional radiation could be a +.

73 de ON5MJ - Jacques.

1545. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 20:26:25 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBEEEF1.B4CB78FD@ieee.org>
Source record: 132283

Vic Fraenckel wrote:
>
> I am interested in JPole antenna because I support a manned gas (hydrogen)
> balloon that participates in long distance (100's of miles or more)
> competition. I need to support voice communications in the 154MHz region at
> about 10 watts, APRS transmissions in the 2Meter Ham band at 5 watts and
> Aircraft communications in the 123MHz region at 10 watts occasionally
> boosted to 20 watts if needed. The average altitude for the balloon is
> 5-6000 feet but can range up to 15,000 feet and down to 2-300 feet. For many
> years we have used dipoles worked fine but were "spikey" in the physical
> sense that subjected the balloon and crew (2 man) to possible physical
> injury especially during launch and landing. I got onto JPoles two years ago
> because they could be fabricated from TV Twin Lead and a length of coax.
> They proved to be safer and were cheap to build. The JPoles were also
> somewhat luighter than the dipole stuff we were using which was a small
> bonus.
>
> I would like to hear some comments concerning their use and usefulness.
>
> Any enlightenment will be appreciated.

The J-pole is essentially the same thing as a Zepp antenna which was
trailed from the Zepp airships. Sounds like exactly what you need.
feed a 1/2WL monopole (wire) with 1/4WL of ladder-line and let it
hang down, just like the Zepp airships. One wire in the ladder-line
goes to the 1/2WL wire and the other wire goes nowhere.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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1546. Re: when does small size really reduce radiation?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 20:30:24 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBEEFE0.9F0DFF78@ieee.org>
Source record: 132284

Henrik wrote:
> When does size really become critical...is it the 1/3 of a wavelength for
> both elements/loop circumference...before radiation is significantly
> compromised, when the match is secured at the antenna with the auto tuner?

Walter Maxwell, in "Reflections", says a dipole should be a minimum
of 3/8WL. This is, admittedly, an arbitrary length but is, IMO, a
good rule of thumb. Note that the G5RV is about 3/8WL on 80m. Any
shorter and the SWR becomes a problem since the feedpoint resistance
is decreasing while the feedpoint reactance is increasing.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1547. Re: New home suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 20:32:36 UTC
From: lizp12th@aol.com
Message-ID: <20021029153236.00244.00001226@mb-fz.aol.com>
Source record: 132285

Scott,

I'm in the process of building a dedicated
ham shack in the corner of an existing
enclosed garage. This will be insulated
for year round use. I had to tear out sheet rock from the garage corner walls
in order to insulate them and run
electrical wiring. My existing framing is
2 by 4s spaced 16" on center. My plan
is to use a rather large electrical junction
box that is also very deep. Most
electrical supply houses have them.
The largest I've seen at Home Depot,
Lowe's, etc. is about 10 by 10 by 4".
The electrical stores have many sizes
...much larger. My plan is to use a
large one and fasten it between the
existing studs close to the floor. I'll
use a hole saw in the back of the box
for multiple large size conduit fittings.
I will avoid using an "LB" type fitting
due to the tight bending radius (Not
good for coax) but instead will use
the prebent conduit 90 degree bends.
This will call for a larger hole on the house
exterior but some mortar and a well placed
landscape bush will take care of that.
I'll have the box grounded. I'll use
bulkhead type lightning/surge arrestors
and mount them to the box cover. Hope these ideas help.

73,
Mike
mwh87120@yahoo.com

1548. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 20:52:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <urtt8qiflj7jba@corp.supernews.com>
Source record: 132286

Striving for maximum gain for a given lot size is a good goal only if you have the option of rotating your antenna or you're interested only in communicating only in a small number of particular directions. It makes no sense to increase the gain of an antenna (which has to narrow its beamwidth) if the narrower beam limits the directions in which you can effectively communicate.

In your earlier post, you supposed that there won't be a "best" antenna, only opinions. Yes, that's true, but the reason there's not a "best" antenna is that "best" is different for different people and different applications.

Roy Lewallen, W7EL

Art Unwin KB9MZ wrote:
>
> Brilliant response, so well thought out.
> Yes I am interested in radiator unit lengths because the majority of
> hams
> do not have the luxury of large plots of land, so getting the maximum
> gain
> given their lot size, is the primary goal.
> Your point on shortened radiators gets to the very heart of
> obtaining
> maximum gain per unit length. Zukov stated that maximimum efficiency
> is when radiation efficiency is from a single point, obviously he was
> extrapolating from the fact that max radiation efficiency per unit
> length is at the peak current point, and with that in mind efficiency
> per unit length can be gained by removing the radiator ends (capacitor
> hats e.t.c.) or changing the phase at judicious points.
> Thanks Larry
>
> Art

1549. Re: Mobile 144/440 Favorites?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 21:19:31 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <apmu15$369hu$1@ID-52642.news.dfncis.de>
Source record: 132288

I also have a Kenwood G707 and like it very much. My favorite is the D700,
but that is expensive and has APRS with it.

...hasan

"Zasz" <prodroom@hotmail.com> wrote in message
news:o9Zu9.8761$Fj6.789768@newsread1.prod.itd.earthlink.net...
>
> Suggestions wanted for a 144/440 to go on a Ford Explorer, antenna
will
> be mounted to the roof rack with appropriate mount.

1550. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 21:23:25 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210291323.41320fd2@posting.google.com>
Source record: 132289

'Doc <w5lz@cwis.net> wrote in message news:<3DBDB3C5.FC769160@cwis.net>...
> Robert,
> Using a tapped coil at the base of the vertical
> would eliminate or reduce losses in the feed line.
> It also makes it a bit more inconvenient because you
> have to go out to change the tap when changing bands.
> So, which would you rather do?
> 'Doc

How does the feedline 'know' what it is connected to so it can then
change its attenuation?

Jim
N8EE

1551. Re: when does small size really reduce radiation?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 22:00:53 UTC
From: Henrik <henrik>
Message-ID: <3dbf0514$0$34812$edfadb0f@dspool01.news.tele.dk>
Source record: 132290

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DBEEFE0.9F0DFF78@ieee.org...
> Henrik wrote:
> > When does size really become critical...is it the 1/3 of a wavelength
for
> > both elements/loop circumference...before radiation is significantly
> > compromised, when the match is secured at the antenna with the auto
tuner?
>
> Walter Maxwell, in "Reflections", says a dipole should be a minimum
> of 3/8WL. This is, admittedly, an arbitrary length but is, IMO, a
> good rule of thumb. Note that the G5RV is about 3/8WL on 80m. Any
> shorter and the SWR becomes a problem since the feedpoint resistance
> is decreasing while the feedpoint reactance is increasing.
> --
> cheers, CAM http://www.qsl.net/w5dxp

Well, thanks...and ehhh....
If SWR is properly taken care of, with the tuner in the antenna
centre....what is then the situation in respect to loss of radiation with
the short radiator?

Rgds
Henrik

1552. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 22:32:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uru33gl3trh699@corp.supernews.com>
Source record: 132293

Your posting makes it sound like bigger antennas are less efficient. On the contrary, it's difficult to make a small (in terms of wavelength) antenna that's efficient, and just about impossible to make a very small one that is. By contrast, most antennas on the order of a half wavelength or larger are very efficient without even trying. (The exception is when there's strong coupling to or current flowing in the ground, as with a ground mounted vertical.) The EH and "cross field" antennas are no exception -- they're very small antennas, and all objective and credible measurements and modeling results show them to be very inefficient.

Roy Lewallen, W7EL

Art Unwin KB9MZ wrote:
>
> Yes Jim I have studied antenna theory so maybe this is a good time
> to bring you up to par
> The first run at antennas was to form a long wire as an antenna
> but it was found that certain parts of the antenna produced
> subtractive gains and the Yagi provided a solution for that which
> started down the road to the ideal situation of getting maximum
> efficiency by reducing element lengths down to a single point as
> with a flash light or a lazer. There are a few attempting this pursuit
> such as the EH antenna, the contra-wound and yes even the fractal.
> In the main however the hobby has gyrated to bigger is better
> regardless of efficiency. We also ignore aproaches to simplify our
> construction of antennas of which enough is known to tell us that
> only skin depth is of real concern and we should wean away from
> aluminium tubing to lighter materials to carry the skin.
> Of course many attempts of improvement fail but snide remarks do
> not help. I was particular interested in how one person added
> capacitors along the length of a antenna in a attempt to install many
> phase changes in the hope that the radiation current curve would
> become a straight line, A wonderfull concept that was poorly thout out.
> Ofcource we do have examples where people have nullified negative radiation
> such as the extended zepp ie. better efficiency tho I am bewildered why
> capacity hats are not used. We also have long wires (bobtail) that
> does a similar thing making use of phase changes to remove negative
> radiation and increaseefficiency per unit lengtjh.

1553. Re: New home suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 22:49:17 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <HfEv9.4883$h_4.689683@news20.bellglobal.com>
Source record: 132295

"Scott Vanzandt" is
> ...looking at building a new home.
> ...conduit...
<snip>

My house (as opposed to where I am living right now) has pretty much every room equipped with the following arrangement...

A outlet box (or several) with a short length of conduit that runs down to the unfinished basement. For the second floor rooms, each rooms' conduit runs up to the loft and from there is a collective honking big conduit that runs down to the basement. The boxes are installed in the corner of each room (usually the best locations are obvious). Installation is trivial for the first floor rooms - a suitable outlet box and a length of conduit joined with the appropriate pressure-fit fitting (about $2 per room). Second floor rooms is just a bit more work.

The applicability of this arrangement to ham radio antenna coaxial cable (high power HF, length sensitive V/UHF) depends upon the layout of your house and your own plans. Outlet boxes are a bit small for the bend radius of anything larger than about RG-8X minifoam. One could rig up larger homemade "outlet" boxes of course - especially on an inside wall (or in the floor). These would be planned to end up under the operating desk.

On the other hand, this arrangement is perfect for all sorts of smaller cables (SWL antennas, satellite or cable TV, telephone, intercom, PC Network, temperature sensors, security cameras, etc.). I've been able to change my mind and swap TV and telephone locations very quickly. I feel happy that I could add a new cable without tearing the house up (saves time, saves effort). Most hams are interested in these sorts of gadgets as well...right ?

1554. Re: "High Carbon Steel Masts"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 22:55:14 UTC
From: derswede@aol.comspam.com
Message-ID: <20021029175514.11132.00000040@mb-fe.aol.com>
Source record: 132294

>While you are at it you might want to check into Chromo (AKA 4130) steel.
>It is quite a bit stronger per a given wall thickness.

Yup...we built airplane fuselages out of it....had a piece used as a mast (wrong size for landing gear!!) on a 100' tower in NC which was up for 20+ years after my dad died (W4QAZ Dick Austin). Never had a problem, even went thru a few major storms w/o blinking. Tough stuff!

Andrew

1555. Re: New home suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 22:59:01 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <VoEv9.2762$z5.1966364@newssvr28.news.prodigy.com>
Source record: 132291

Why not make your dedicated garage shack available for remote control over a LAN? My station's in the basement, but I can control it from anywhere in the house over a wireless LAN from my notebook computer, and monitor all important aspects of operation. For audio within the house you can use Personal Radio band transceivers, or with less quality you can use NetMeeting over the LAN.

Larry N8LP

"LizP12th" <lizp12th@aol.com> wrote in message
news:20021029153236.00244.00001226@mb-fz.aol.com...
> Scott,
>
> I'm in the process of building a dedicated
> ham shack in the corner of an existing
> enclosed garage. This will be insulated
> for year round use. I had to tear out sheet rock from the garage corner
walls
> in order to insulate them and run
> electrical wiring. My existing framing is
> 2 by 4s spaced 16" on center. My plan
> is to use a rather large electrical junction
> box that is also very deep. Most
> electrical supply houses have them.
> The largest I've seen at Home Depot,
> Lowe's, etc. is about 10 by 10 by 4".
> The electrical stores have many sizes
> ...much larger. My plan is to use a
> large one and fasten it between the
> existing studs close to the floor. I'll
> use a hole saw in the back of the box
> for multiple large size conduit fittings.
> I will avoid using an "LB" type fitting
> due to the tight bending radius (Not
> good for coax) but instead will use
> the prebent conduit 90 degree bends.
> This will call for a larger hole on the house
> exterior but some mortar and a well placed
> landscape bush will take care of that.
> I'll have the box grounded. I'll use
> bulkhead type lightning/surge arrestors
> and mount them to the box cover. Hope these ideas help.
>
> 73,

> Mike
> mwh87120@yahoo.com

1556. Re: when does small size really reduce radiation?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 23:03:54 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <utEv9.35018$Mb3.1495074@bgtnsc04-news.ops.worldnet.att.net>
Source record: 132296

"Henrik" <henrik> wrote in message
news:3dbf0514$0$34812$edfadb0f@dspool01.news.tele.dk...
>
> Well, thanks...and ehhh....
> If SWR is properly taken care of, with the tuner in the antenna
> centre....what is then the situation in respect to loss of radiation with
> the short radiator?
>
> Rgds
> Henrik

Several factors can contribute to a "loss of radiation". Their practical significance may be a matter of some debate. Some of these issues are system gain issues and some of them are antenna efficiency issues.

1) The tuner will introduce some loss into the system. For practical matters this may be negligible.

2) With increased SWR, the absolute power loss in the transmission line increases.

Part A. Assume the same forward power arrives at the antenna. With a matched antenna there is no reflected power. With a mismatched antenna, there is some level of reflected power. Some of this reflected power is dissipated in the transmission line. This increases the absolute power loss in the transmission line.

Part B. The SWR between the tuner and the antenna will be the same as without the tuner. The tuner essentially compensates for the mismatch loss introduced by the high SWR by increasing the total forward power arriving at the antenna. The relative level of power reflection at the antenna remains unchanged. With the tuner, the absolute forward and reflected power in the transmission line increase. Therefore, the absolute power dissipation in the transmission line increases.

3) The total power delivered to the antenna is a direct function of the antenna's resistance, which is comprised of two components - radiation resistance and loss resistance. As the antenna becomes smaller, the total resistance decreases. However, the radiation resistance decreases at a faster rate and the antenna efficiency decreases with smaller size.

Steve VE9SRB

1557. Re: when does small size really reduce radiation?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 23:08:56 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <cyEv9.2763$z5.1968148@newssvr28.news.prodigy.com>
Source record: 132292

The SGC will work fine with .25 wavelength at the lowest frequency...I believe it will match down to 8 ohms...but they have so many models, I don't remember which is which. There will be some loss...maybe a db or two depending on the Q of the coils in the SGC...certainly nothing that would prevent you from getting out solidly.

I have an SG-237, and have used it with .25 wavelength dipoles. The main thing to remember about these tuners is that they are inherently unbalanced...and for the auto circuitry to work right...the "cold" side needs to be well defined. SGC recommends lengthening the cold side about 5% to facilitate this. If this is not possible, then you'll need to provide a counterpoise to connect to the cold side.

Be careful about using a length that will be near 1 or 2 wavelengths on any band, since the voltage will be very high and hard to tune.

--
Larry N8LP

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DBEEFE0.9F0DFF78@ieee.org...
> Henrik wrote:
> > When does size really become critical...is it the 1/3 of a wavelength
for
> > both elements/loop circumference...before radiation is significantly
> > compromised, when the match is secured at the antenna with the auto
tuner?
>
> Walter Maxwell, in "Reflections", says a dipole should be a minimum
> of 3/8WL. This is, admittedly, an arbitrary length but is, IMO, a
> good rule of thumb. Note that the G5RV is about 3/8WL on 80m. Any
> shorter and the SWR becomes a problem since the feedpoint resistance
> is decreasing while the feedpoint reactance is increasing.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
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1558. O'Reilly's Antenna Shootout

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 23:12:19 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <q05uruom9uvdt50ufj832sh1hn7qhrhmu2@4ax.com>
Source record: 132297

Article
http://slashdot.org/articles/02/02/17/026208.shtml?tid=99

Homebrew Antenna Shootout
http://www.turnpoint.net/wireless/has.html

Could Fracky, et al., add their products to the line-up for a
ranking? It seems simpler than FOMs and GOs.

Results in a format like this would settle the question, would they
not?

http://www.turnpoint.net/wireless/antennas/performance.html

1559. Re: when does small size really reduce radiation?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 23:21:39 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBF1803.208D74FF@ieee.org>
Source record: 132298

Henrik wrote:
>
> "CAM" <Cecil.A.Moore@ieee.org> wrote in message
> > Walter Maxwell, in "Reflections", says a dipole should be a minimum
> > of 3/8WL. This is, admittedly, an arbitrary length but is, IMO, a
> > good rule of thumb. Note that the G5RV is about 3/8WL on 80m. Any
> > shorter and the SWR becomes a problem since the feedpoint resistance
> > is decreasing while the feedpoint reactance is increasing.
>
> Well, thanks...and ehhh....
> If SWR is properly taken care of, with the tuner in the antenna
> centre....what is then the situation in respect to loss of radiation with
> the short radiator?

The rule of thumb is still good. Let's turn it around. How much loss
are you willing to tolerate? half your power? 3/4 of your power?
The losses in the tuner at the antenna increase as the antenna is
shortened radically less than 3/8 WL. The 'Q' of the coils in the
SGC-230, for instance, is not all that high being wrapped on
iron-core toroids.
--
cheers, CAM http://www.qsl.net/w5dxp

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1560. Re: when does small size really reduce radiation?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 23:25:25 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBF18E5.83852AC9@ieee.org>
Source record: 132299

Larry Phipps wrote:
>
> The SGC will work fine with .25 wavelength at the lowest frequency...I
> believe it will match down to 8 ohms...but they have so many models, I don't
> remember which is which. There will be some loss...maybe a db or two
> depending on the Q of the coils in the SGC...certainly nothing that would
> prevent you from getting out solidly.
>
> I have an SG-237, and have used it with .25 wavelength dipoles. The main
> thing to remember about these tuners is that they are inherently
> unbalanced...and for the auto circuitry to work right...the "cold" side
> needs to be well defined. SGC recommends lengthening the cold side about 5%
> to facilitate this. If this is not possible, then you'll need to provide a
> counterpoise to connect to the cold side.
>
> Be careful about using a length that will be near 1 or 2 wavelengths on any
> band, since the voltage will be very high and hard to tune.

I don't think that would be a problem. I've seen the SGC-230 used on 75m
with a CB whip. Now there's a high voltage.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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1561. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 23:28:24 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0210291528.6ed5114c@posting.google.com>
Source record: 132300

fractenna@aol.com (Fractenna) wrote in message
news:<20021028191646.27717.00001046@mb-mf.aol.com>...
> Unfortunately, Mike, it pays to use PVC pipe.
>
> As soon as even a little nibble is done on the jacket, water seeps in and
> destroys the coax. Its slow, but a year may go by until you wonder why the SWR
> is so good but you can't break pile ups anymore...
>
> Water seepage is the real problem. The critters are just the delivery system.
>
> Try renting a Ditch Witch and the pipe will go in pronto.
>
> 73,
> Chip N1IR

It ain't just rodents . . I wuz pounding 40cw in some dx contest or
another back when at the W3WJD multi-multi and all of a sudden the amp
went bonkers. Got down to hoofing along the the coax to the 40m tower
with a flashlight at 2am or whatever ugly hour it was . . turned out
that the station owner's big outdoor guard mutt decided to have a
snack on the cable. Output suds from the 4-1000A be damned.

w3rv

1562. Re: HamCalc & Windows XP ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 23:49:33 UTC
From: Jesse <jplummer@bluefrognet.net>
Message-ID: <3DBF1E8D.3B5D8F8@bluefrognet.net>
Source record: 132302

Where can I get a working copy, I downloaded it and it failed to install,
some missing files. Redownloaded and same thing...

Dick wrote:

> Hamcalc V-10 with Windows XP
>
> I receive an error-76 when executing any command from the main menu.
>
> I have set all items that I could to Windows 95 compatibility.
>
> Have tried by typing VE3ERP at c:\ and also by executing the Menu program
> directly from GWBasic. Same error in all cases ?? help
>
> Dick N3HKN

1563. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-29 23:56:01 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DBF2011.CBEA590A@cwis.net>
Source record: 132301

Jim,
This was the choices given, "A tapped coil at the base or just a fixed length vertical with an antenna tuner?". With that in mind, where would you think the 'best' place to match impedances would be, at the input of the antenna, or at the transmitter end of the feed line? Remember, this is a multi-band antenna. The feed line doesn't have to know when to change it's attenuation, or even have to change at all.
'Doc
PS - Besides, I have 'smart' coax.

1564. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 00:16:36 UTC
From: fractenna@aol.com
Message-ID: <20021029191636.02913.00000163@mb-dd.aol.com>
Source record: 132304

>Got down to hoofing along the the coax to the 40m tower
>with a flashlight at 2am or whatever ugly hour it was . . turned out
>that the station owner's big outdoor guard mutt decided to have a
>snack on the cable. Output suds from the 4-1000A be damned.
>
>w3rv
>

I'm sure dog saliva is more destructive than dew seepage;-)

73,
Chip N1IR

1565. "Drive-On" Antenna Mounting Base

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 00:16:46 UTC
From: horseshoe7@yahoo.com
Message-ID: <5f4fe4c2.0210291616.14604580@posting.google.com>
Source record: 132303

I'm looking for commercial source(s) for a "Drive-On" Antenna Mounting Base Plate System(where you drive your vehicle onto the base plate to secure the antenna base from toppling). This is for mounting a fairly large Shakespeare Military wideband(30-512Mhz) Vertical Omni Antenna. Since it is for a military application, I'm looking for commercial solutions(not home-brewed). Anyone got any suggestions for sources?

Thanks, Stewart

1566. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 01:08:05 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <jtburuga21npg1d8ivv1tk99g42cvk5hcp@4ax.com>
Source record: 132305

Sounds like I really need to use outdoor PVC conduit. My back hurts
just thinking about the trenches I'll need to dig. On second thought,
I think I'll lay the PVC on the surface, and kick a little dirt over
it to hide it.

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1567. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 01:28:38 UTC
From: Nelson Gietz <ngietz@mb.sympatico.ca>
Message-ID: <%BGv9.2678$b5.13854@news1.mts.net>
Source record: 132306

Reg,
My mistake... I want to use the transformer between the random wire and a coax leadin to minimize local noise. Random wire antenna is somewhere, if I remember correctly, around 500-700 ohms impedance, coax in this case is 75 ohms. Trying to match them....
Nelson

Reg Edwards <g4fgq.regp@btinternet.com> wrote in message news:apm83p$n8l$1@sparta.btinternet.com...
>
>
> "Nelson Gietz" wrote > Hi,
> > I'm considering winding an "un-un" tranformer, for listening to .54-54
> > mHz on
> > a random wire. Thought of using a ferrite ring from a dead computer power
> > supply. Good idea or should I order up a specific ring?
> ==========
>
> An "un-un" in that application serves no useful purpose. Who told you
> otherwise ? An "un-un" salesman ? An old-wife who has been conned by the
> "un-un" adverts but who has never used one ?
>
> If you use a ring of power supply grade you will certainly introduce a loss
> which increases with frequency.
>
> If you MUST introduce a gadget between the random wire and a receiver then
> buy or make a simple preselector. (If your receiver does not have one
> already built in.) Depending on receiver performance without a preselector
> there may be a considerable advantage in using one.
>
> A preselector helps to prevent the many strong signals, to which the
> receiver is NOT tuned, from over-loading the receiver input and causing
> interference with weak wanted signals to which the receiver IS tuned.
>
> Don't bother with a "tuner" intended only to transform the input impedance
> of an antenna to 50 ohms. The amount of pre-selectivity it may introduce is
> negligible.
> ---

> Reg, G4FGQ
>
>
>
>
>
>
>

1568. Re: Considering adding a vertical to the antenna farm

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 01:30:58 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <mDGv9.21899$hp5.2899676@twister.southeast.rr.com>
Source record: 132308

Hi Jason,

I think the answer to both questions is "Absolutely". The black coax shield indicates the coax has been around for some time and may have accumulated water, so I'd get new coax. Take a look at RG-58 characteristics compared to RG-8. If you are running HF and no amp, you may find RG-58 very useable. Certainly a loose coax fitting would not help your reception or transmission.

Good luck and Good DX,

Bill, W4WNT
"Jason Hissong" <jhisson1@columbus.rr.com> wrote in message news:95ov9.100706$kF.16080162@twister.columbus.rr.com...
> Hi gang,
>
> I am putting up a Glen Martin roof mounted tower that will put my Hexbeam up
> at 32' (Incidentally, the Hexbeam performs a little better than my inverted
> V dipole at 30'... and the Hexbeam is only 8' off the ground at this time! I
> cannot imagine what this thing will do at 32'!) I will have the Hexbeam
> that can do 20-10M so that will give me the beam capability. My inverted V
> dipole is a DXLB+ that will be mounted at 32' at the apex (using the tower).
> This will cover 160-10 minus WARC bands (which will allow me to do state
> side QSO's). I am considering adding a GAP Eagle DX to my antenna list. I
> have a friend that will sell his for a good price (he is upgrading to a
> tower). I used to own one and I had a bad time with it (which I think it
> was operator error because the coax connector was not solidly soldered to
> the feedline of the antenna.) The guy I sold it too is having a great time
> with it and it is performing very well for him (in fact, his location is
> worse than mine!!) So I am considering giving it another chance.
>
> So my question is this, would a bad solder joint cause the antenna to be a
> poor performer? The guy who bought my original Eagle DX pulled the coax
> connector right off with little effort. The copper braid in the coax was
> black for about 6". With a properly soldered coax connector, would this
> make a difference?
>
> Second question, adding the vertical... would this give me a well rounded

> selection of antennas? (Beam, dipole, vertical).
>
> Thanks es 73!
>
> Jason Hissong
> N8XE
>
>

1569. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 01:34:36 UTC
From: artie <silli_artie@hotmail.com>
Message-ID: <291020021734260584%silli_artie@hotmail.com>
Source record: 132307

I
I've used a spray-on mix of armor-all, bitter apple (available at pet stores) and Dave's Insanity Sauce (VERY hot). Protects the cable and makes it unpalatable at the same time.

Tip: Wear latex gloves if you do this.

1570. Re: What'e your favorite method to bring coax into the shack?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 02:35:02 UTC
From: "Thomas C. Sefranek" <WA1RHP@ARRL.net>
Message-ID: <qzHv9.2319$lk6.238820@newsread1.prod.itd.earthlink.net>
Source record: 132309

This is the closest to the real way to do the job.

Use a 1/8" thick aluminum panel to mount the polyphaser lightning arrestors.
Add a heavy ground lug to the panel to a SHORT THICK wire to your outside
ground rod.

Tarmo Tammaru <t-tammaru@home.com> wrote in message
news:4OicnWDjMOn7diOgXTWcoA@comcast.com...
> Gary,
> I use UHF bulhead connectors to bring the signals into the house (actually
> garage). The bulkheads go through the rear garage wall. Cables with 259
> connectors screw into the bulkheads from inside and from outside. There
are
> 4 of these. Instead of putting a big washer on each bulkhead, I have about
a
> 2 x 6 inch piece of aluminum sheet (with 4 holes drilled in it). One of
the
> mounting screws for the aluminum sheet connects to a ground strap, on the
> outside. To keep it neat, I have a second, identical, aluminum plate on
the
> inside.
>
> The nice thing is I can unscrew all the coaxes from the outside, and be
> completely lightning proof. OK, if it is alrerady raining, I do it on the
> inside. I found the 2 inch bulkheads won't quite reach through the siding
> and plywood, so had to go up to the next size. You can buy bulkhead
> connectors from Cablexperts. The whole ouside of the bulkhead connector is
> threaded with the same pitch as a 259 connector. They give you 2 nuts that
> go on there for nounting.
>
> I have one antenna at the other end of the house, where I drilled a hole
> from the outside into the basement, next to the telephone and cable wires.
> Wall is too thick to put a bulkhead there.
>
> Tam/WB2TT
> "Gary Brown" <gbrown@nc.rr.com> wrote in message
> news:3dbe7dcf.29884862@news2.southeast.rr.com...
> > Looking for any "hints and kinks" the group may wish to share. So far I
> have
> > used the dryer vent, the sewer vent pipe on the roof, and the usual hole
> in the
> > wall over the past 40 years. And, I've slammed the window sash down on
> > twin-lead!
> > I've also heard of metal plates and plexiglass inserts for window
frames,

> in
> > basements.
> >
> > Thanks,
> > Gary
> > K4GPB
>

--
*
| __O Thomas C. Sefranek WA1RHP@ARRL.net
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

1571. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 02:47:48 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210291847.62d4fe72@posting.google.com>
Source record: 132310

jim.bolinger@lintek.aeroflex.com (JLB) wrote in message
news:<8d5ec8a2.0210290606.2e6315e1@posting.google.com>...
> aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message
news:<85ed38d.0210281305.51ac8994@posting.google.com>...
> > Jim, I am going to assume that your questions are sincere and not an
> > attempt to do something else so I will respond to your post.
> >
>
>
> Art,
>
> Yes, my questions were sincere. I read your post 3 times before I
> responded. Even then I did not entirely understand what you were
> saying.
>
> As others have pointed out, you used unconventional definitions for
> common terms, so naturaly it will be difficult for everyone to
> understand. In order to communicate ideas effectively we must all
> agree to a common language.
>
> I have hesitated on this group to 'wave my own flag' because I do not
> want to sound arrogant, but I have been an engineer for almost 30
> years, and a Ham for longer than that. One of the first 'rules' of
> engineering, that every engineer must know, is that you first study
> how and why things are done the way they are. ("Those who ignore
> history are condemed to relive it.") Only then are you prepared to do
> something new, and any engineering invention is a compromise between
> requirements. Why some of us appear smarter than others is not that
> we are more intelligent (hmm, well maybe some of us are ;-)) but we
> have years and decades of experience in learning the hows and whys of
> the way things work.
>
Snip
>
> Jim
> N8EE

Hi Jim,As a retiree I am now a 'nothing' but we have the same
background except you are electrical where I was mechanical albiet at
G.E.and English to boot.
You make excellent points and I was speaking somewhat tongue in cheek,
but I do feel there should be a common 'best antenna' chart possibly
based on efficiency or what ever.But let us look at the latest "new "
idea, the IR antenna which appears in great demand because it can

pursue a constant 'high' gain across a
band, which if you compare to other multi frequency antennas is quite an achievement and realistic (higher merit), whereas other manufactures claim a 'point' gain without reference to drop off in gain at band edges ! But the fact is that one could increase gain even more, much more, by using the total physical length, what ever length one wishes to use, to radiate on 'All' frequencies by incorporating a collinear aproach or design, tho some would argue that a collinear aproach does NOT supply extra gain ! So I used that as a background to emphasize some way of getting an 'order of merit' so that efficient use of 'dormant' parts of an antenna, say in a triband element,aproach other than bottom edge of twenty metres would reflect a true merit index increase.
Now ofcourse it will not take off. Some will argue that traffic lights are blue if one says it was red but it can be a lot of fun if no malice was intended. One person explained in excellent detail the technical side of the question and another urged that we all use similar definitions before we decide to generate new ones, both of which are excellent points.Yes, there are undoubtedly some very knowledgable people in this group and when they are encouraged to partake in true debate instead of sarcasm then we all get to learn a bit more, this being the main reason that I am here. Yes I am not good at communicating but for me it is better than being silent.
By the way I like your reference to history since it reflects the amateurs antenna aproach to reach a point where all radiation is generated from a flashlight.This is a difficult task and many are derided for even pursuing the idea but then even Gallaleo was villified for presenting new ideas. Even the inventor of the typewriter was ignored for over twenty years before one finally got installed in an office. Obviously in both cases the opposition were skilled debaters lacking in knoweledge and intent in killing the messenger, some of which are still around today.
Have a great week Jim, I enjoyed the interchange.
Art

1572. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 02:55:51 UTC
From: dplatt@radagast.org
Message-ID: <uruihn32cv7te1@corp.supernews.com>
Source record: 132312

>I've used a spray-on mix of armor-all, bitter apple (available at pet
>stores) and Dave's Insanity Sauce (VERY hot). Protects the cable and
>makes it unpalatable at the same time.

Yeesh. "Unpalatable" is putting it mildly. That's a very inventive
mixture!

>Tip: Wear latex gloves if you do this.

... and perhaps a respirator and mask as well. Dave's is high-test
capsicum oleoresin. You really don't want to be inhaling this mixture
or getting it in your eyes... it'd hurt like hell.

Unless your local rodents have been raised on a diet of bitter melon
and habaneros, I'd expect them to stay far away from this potion!

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1573. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 03:06:27 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210291906.52d2d00f@posting.google.com>
Source record: 132311

tayl0rr@yahoo.com (Robert) wrote in message
news:<ff33c2c3.0210281059.4ecded93@posting.google.com>...
> Which is preferable on a homebrew multiband vertical antenna. A
> tapped coil at the base or just a fixed length vertical with an
> antenna tuner? I'm thinking the tapped coil, with a tuner, but would
> like a little explanation if possible?
>
> What band should the radials be set for? If full size radials are not
> possible should they just be made as long as possible?
>
> Is there a faq for vertical antennas?
>
> I would like to build a simple multiband antenna for 10-80 meter, but
> I have limited space, only about 30' horizontal for something like a
> dipole, but the neighbors wouldn't mind seeing a single vertical
> sticking up above the house 20-30'.
>
> Thanks
> Robert

Robert,I have only experimented a little with verticals
but may I suggest a different direction to the norm for you to review.
Since radials are a necessity for 'efficient' verticals why not think
of using a vertical dipole form ? This puts the feed point away from
the ground and where the coax feed can be "shielded" by routing it
thru the center of the vertical arrangement and then routed
underground. I have heard that such arrangements provide a lower angle
of radiation than the standard vertical which makes it useful for DX.
It also would meet your needs as far as neighbors are concerned. I am
sure that others could add to this aproach in such a way that we all
could learn more.Just a thought.
Art

1574. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 03:14:10 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210291914.754a1a6e@posting.google.com>
Source record: 132313

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<apm83p$n8l$1@sparta.btinternet.com>...
> "Nelson Gietz" wrote > Hi,
> > I'm considering winding an "un-un" tranformer, for listening to .54-54
> > mHz on
> > a random wire. Thought of using a ferrite ring from a dead computer power
> > supply. Good idea or should I order up a specific ring?
> ==========
>
> An "un-un" in that application serves no useful purpose. Who told you
> otherwise ? An "un-un" salesman ? An old-wife who has been conned by the
> "un-un" adverts but who has never used one ?
>
> If you use a ring of power supply grade you will certainly introduce a loss
> which increases with frequency.
>
> If you MUST introduce a gadget between the random wire and a receiver then
> buy or make a simple preselector. (If your receiver does not have one
> already built in.) Depending on receiver performance without a preselector
> there may be a considerable advantage in using one.
>
> A preselector helps to prevent the many strong signals, to which the
> receiver is NOT tuned, from over-loading the receiver input and causing
> interference with weak wanted signals to which the receiver IS tuned.
>
> Don't bother with a "tuner" intended only to transform the input impedance
> of an antenna to 50 ohms. The amount of pre-selectivity it may introduce is
> negligible.
> ---
> Reg, G4FGQ

Excellent advice Reg. Brought back to mind how the front end tune on
my old
HRO 50T1 came to life as I turned the knob for maximum receive.That
was in the old days when 2RF and 3IF stages was considered the state
of the art.
Art

1575. Homebrew Force 12 Sigma 5

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 04:01:01 UTC
From: theplanters95@aol.comnospam
Message-ID: <20021029230101.27831.00001215@mb-mf.aol.com>
Source record: 132314

Anybody have any suggestions for homebrewing a Sigma 5 vertical dipole. The main change will be to use 450 ohm ladder line instead of the matching circuit in the center of the dipole. Please email me directly.

Randy ka4nma
theplanters95@aol.com

1576. Re: O'Reilly's Antenna Shootout

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 04:19:18 UTC
From: k3bu@aol.com
Message-ID: <20021029231918.26576.00000189@mb-ci.aol.com>
Source record: 132315

>
>Could Fracky, et al., add their products to the line-up for a
>ranking? It seems simpler than FOMs and GOs.
>
>Results in a format like this would settle the question, would they
>not?

>
>Could Fracky, et al., add their products to the line-up for a
>ranking? It seems simpler than FOMs and GOs.
>
>Results in a format like this would settle the question, would they
>not?

Naaah!
That wouldn't be scientwiphic :-)

BUm

1577. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 04:42:54 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apno0d$ml8$1@helle.btinternet.com>
Source record: 132316

"Nelson Gietz" wrote
> Reg,
> My mistake... I want to use the transformer between the random wire and
> a coax leadin to minimize local noise. Random wire antenna is somewhere,
if
> I remember correctly, around 500-700 ohms impedance, coax in this case is
75
> ohms. Trying to match them....

==========

Nelson, I've thought a little more about it.

You have a receiver with a 50-ohm input impedance. It is preceded by a length of coax cable. But the input impedance of the cable is still 50 0hms. So the 600 ohms down to 75 ohms problem (if it is a problem) is exactly the same whether the coax is inserted between antenna wire and receiver or not. There is just a small fraction of a dB extra signal loss in the coax. The loss in the un-un is the same whether the coax is there or not.

It is true that the characteristic impedance Zo of a high, long length of 14-gauge wire is crudely 600 ohms. But because the the far end of the wire is unterminated the angle of the 600-ohms input impedance will vary with frequency between 0 and 360 degrees and the resistive component of input impedance will vary between about 40 and 2500 ohms with a mean of about 350 ohms.

So the mismatch loss at a particular frequency without an un-un is anybody's guess. An un-un will reduce the MEAN mismatch loss by crudely 4-5 dB. At some unkown frequencies, where antenna impedance is already less than 75 ohms, it will actually increase loss. But this is hardly relevant since what matters is signal-to-noise ratio and an un-un can have no effect on this all-important feature.

Suggestion - borrow an un-un and see what practical difference it makes (in or out) over the whole MF and HF bands.

1578. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 06:26:07 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DBF7B7F.EAEF16A9@ieee.org>
Source record: 132317

Reg Edwards wrote:
> Suggestion - borrow an un-un and see what practical difference it makes (in
> or out) over the whole MF and HF bands.

Isn't ten turns of coax on a ferrite toroid a unun if it connects
coax to coax and a balun if it connects coax to ladder-line?
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1579. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 13:24:25 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apomi9$8j3$1@venus.btinternet.com>
Source record: 132219

I think an un-un is an unbalanced-to-unbalanced wide-band auto transformer
of unspecified ratio with one end of the winding grounded.

By making the right connections an ordinary 4-to-1 impedance-ratio balun
becomes a 4-to-1 un-un.

But I don't want to make a Federal case out of it. I'd never heard of the
thing before yesterday.

Reg, G4FGQ

==========

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DBF7B7F.EAEF16A9@ieee.org...
> Reg Edwards wrote:
> > Suggestion - borrow an un-un and see what practical difference it makes
(in
> > or out) over the whole MF and HF bands.
>
> Isn't ten turns of coax on a ferrite toroid a unun if it connects
> coax to coax and a balun if it connects coax to ladder-line?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1580. Looking for:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 13:24:48 UTC
From: Roger Peterson <kc8qr@neo.rr.com>
Message-ID: <A4Rv9.5407$yY.791562@twister.neo.rr.com>
Source record: 132318

Looking for Hustler mobile antenna stuff. Need 40 meter kw load and 20 meters. I also need the mast to mount them on.
Tnx Pete Kc8qr u can send replies to kc8qr@neo.rr.com

1581. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 13:47:04 UTC
From: Nelson Gietz <ngietz@mb.sympatico.ca>
Message-ID: <4qRv9.2954$b5.14919@news1.mts.net>
Source record: 132220

Reg, Cam, Art et al,
Yeah, that's what I'm talking about... thought the term was in more
common use, but perhaps I fell
into the trap of one or two purists who insisted on differentiating.
The scenario here, is that I was putting up a random wire at some little
distance from the house wiring
and consequent noise, and using coax to feed it to the receiver. The coax
is 72 or 75 ohm impedance,
I forget which, because I had it on hand. The receiver (SP600) input is 100
ohms impedance. So...
unbalanced to unbalanced.
And Reg, maybe you can correct me on this. My understanding is that by
using the coax with grounded
shielding to feed to the receiver, I can reduce local noise pickup. Also
that an unun (or reconnected
balun), can match the impedances, at least somewhat, and smooth out the
nulls-peaks of the antenna
over a broader bandwidth. The original question was simply whether a small
ferrite toroid core out of
dead computer power supply would be suitable as a core for homebrewing the
unun/balun.
Nelson

Reg Edwards <g4fgq.regp@btinternet.com> wrote in message
news:apomi9$8j3$1@venus.btinternet.com...
> I think an un-un is an unbalanced-to-unbalanced wide-band auto transformer
> of unspecified ratio with one end of the winding grounded.
>
> By making the right connections an ordinary 4-to-1 impedance-ratio balun
> becomes a 4-to-1 un-un.
>
> But I don't want to make a Federal case out of it. I'd never heard of the
> thing before yesterday.
> ---
> Reg, G4FGQ
>
> ==========
>
> "CAM" <Cecil.A.Moore@ieee.org> wrote in message
> news:3DBF7B7F.EAEF16A9@ieee.org...
> > Reg Edwards wrote:
> > > Suggestion - borrow an un-un and see what practical difference it
makes
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> > > or out) over the whole MF and HF bands.
> >
> > Isn't ten turns of coax on a ferrite toroid a unun if it connects
> > coax to coax and a balun if it connects coax to ladder-line?
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>
>

1582. Re: Homebrew Force 12 Sigma 5

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 14:08:12 UTC
From: sburgoyne@faux9bit.qc.ca
Message-ID: <3dbfe5dd.2461724@news.9bit.qc.ca>
Source record: 132221

From a previous post, 5 days ago:

This is a great antenna for a newbie to build and to model using NEC.
I did that 2weeks ago to get some antenna up for this weekends CQ WW
DX SSB contest. Here are the construction details.
2 6' 3/4" 0.125 thickness Al tubes
2 6' 5/8" 0.125 thickness Al tubes
15' Fiberglass Wind surfing pole
2 2" Stainless Steel Hose clamps
3 3" Stainless Steel Hose clamps
2 5" Stainless Steel Hose clamps.
2 1"x5" Strips of 1/8" thickness Al
1' 1" Sched 40 PVC pipe
8 2" #8 Stainless Steel Machine Screws + washers + nuts
4 2" #8 brass Machine Screws + washers + nuts
Silicone Caulking
450 ohm Ladder line
Tuner

Building procedure:
The holes you will be drilling should be big enough for #8 Machine
screw.
1. Take the 5/8" Tubes and Drill Holes at 36" and 39" from one of the
ends.
Sand the areas around the 36" Hole.

2. Take the 3/4" Tubes and Drill Holes at 2" and 5" from one and a
0.5" from the other end. Sand areas around the 2" and 0.5" sets of
holes.

3. Take the PVC pipe and Drill holes at 5" and 7" from one end. Widen
the hole on one of the sides of the PVC pipe so that the head of the
brass screw will completely go through the hole. Make sure you do not
widen the hole on the other side.

4. Take the 2 metal strips and drill 2 holes 4.25" inches apart along
the centerline of the strip.

5. Take a hacksaw and cut a few 1.4" slits on both ends of the PVC
pipe.

Assembly.
1. Take the 3/4" tube and push the end with the hole at the 0.5" into
the PVC tube. When the hole shows up on the first 5" hole put a brass
screw through the side with the big hole. The head of your brass screw
will be directly contacting the Al tubing. Put a washer and a nut and

tighten it down. Repeat the proceedure for the other side. Now Slide the 2 2" hose clamps over the PVC pipes. Align the clamp to one end over the slits and tighten using a nut driver. The PCV will compress and grip the AL tubing. Repeate proceedure with the other clamp.

2 Now take the 5/8" Al tubing. Line up the hole at 36" with the hole at 2" on the 3/4" tube and put a brass screw though. Tighten. Put stainless steel screws through the hole at 5" on the 3/4" tube and the hole at 39" on the 5/8". Put the metal strip in and tighten. You should have a T which not going to wiggle or droop. Repeat process at the other end.

3. Take the ladder line and hook the 2 ends to the Brass screws in the PVC pipe.

4. Apply caulk liberaly at all the points that have brass screws.

5. Overlap 3' of the bottom end of the antenna with the Fiberglass pole. Spread out the 3 3" hose clamps in the 3' overlap zone and tighten.

6. You are almost there. Lift the whole asembly and tie the fiberglass pole to a vertical support using the 5" hose clamps.

7. Run into the shack and tune it to the band of interest. 20 15 and 10 work real well.

The first contact for me with this antenna was RZ4FA on 14.225 and he gives me a 5/6 Followed by AA3b on 21.387. The next day was LW9DHR on 28.344. NEC tells me that the radiation resistance on 20 is about 15 ohms, on 15Mtrs it is about 35, on 10 it is about 60.

I used the Al from a Full size 20M beam I used to have. The Fiberglass pole was picked up for free during the Dumpster Day in our community. Hose clamps and screws etc were from Home Depot.

Build and have fun. See you on the Air.
Regards
Nat Gurumoorthy AB6SJ

---
to reply direct, remove "faux" from e-mail address

1583. help shunting feeding tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 15:57:26 UTC
From: me@nowwhere.com
Message-ID: <3DC00162.9759602A@swbell.net>
Source record: 132222

hi

i've got a question about shunt feeding a us towers tx455
crank up tower. the tower is a 3 section, telescoping tower.
each section is hooked to the next section with 1/4 inch
steel cable and secured with large galvanized bolts at each
end. my question is, does the bolted steel cable from one
section to the next, consistute a good electrical/rf connection?
my initial thoughts say no, it is not a good connection, and
trying to use the tower as a shunt feed 160m vertical will
probably generate swr that varies as well as rfi problems
as well. anyone got comments, thoughts they would like
to share, either pro or con?

larry
kd5foy

1584. Re: "Drive-On" Antenna Mounting Base

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 16:49:36 UTC
From: jder8745@aol.com
Message-ID: <20021030114936.00134.00001266@mb-fs.aol.com>
Source record: 132223

Howdy,

I'm sure I've seen them advertised in the AES catalog. Why not give then a call?

73 de Jack, K9CUN

1585. Re: Homebrew Force 12 Sigma 5

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 16:50:18 UTC
From: burgoyne@faux9bit.qc.ca
Message-ID: <3dc00ccc.12430711@news.9bit.qc.ca>
Source record: 132224

Oops, if you look at the previous post, it is not built like a force 12.

How about someone out there tell us how to make a sigma 80, 40 or 20 ?.

What would analysis say about these sigma antennas ? I mean, about using long T-bars at the end of their dipoles, what does it say for efficiency, radiation angle, etc ?

I think the sigma 20 is roughly 16 feet overall with 13 feet T-bars at the ends?
the sigma 40 is roughly 24 feet overall with 10.5 feet T-bars ?
the sigma 80 is roughly 36 feet overall with 14 feet T-bars ?

Maybe 450 ohms line and tuners would tune these on other bands ...

---
to reply direct, remove "faux" from e-mail address

1586. Re: New home suggestions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 16:59:05 UTC
From: jder8745@aol.com
Message-ID: <20021030115905.00134.00001267@mb-fs.aol.com>
Source record: 132225

Howdy,

If you have a basement you can have the rf ground installed through the basement floor or, for that matter, through a basement wall.

Provide means to run lots of wires from the outside of the house to the inside, including means to remove and pull in new or additional wires.

One ham buddy of mine has made provisions to disconnect ALL such wires at the outside of his house before they ever get in. He has been hit by lightning twice and is kind of gunshy.

It may be a good idea to bury plastic pipe under driveways or other paved areas by the house in case you want to run underground wires. (I wish I had done that when I had a new drieway poured many years ago.)

73 de Jack, K9CUN

1587. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 17:08:12 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210300908.158d54e0@posting.google.com>
Source record: 132226

Roy Lewallen <w7el@eznec.com> wrote in message news:<uru33gl3trh699@corp.supernews.com>...

> Your posting makes it sound like bigger antennas are less efficient.

Well I intended to say "amateurs are gyrating towards bigger is
better"
and there is nothing wrong with that if you have money.

On the contrary, it's difficult to make a small (in terms of
wavelength)
> antenna that's efficient,

NOT if you look at it from a gain per unit length aproach which most
seem to dislike. As you well know a capacity hat can make a difference
in length with only minimul effect to gain, very important to those
who do not have money.

and just about impossible to make a very small
> one that is.

'Just about but not quite' is subject to change as the state
of the art improves is it not?

> By contrast, most antennas on the order of a half
> wavelength or larger are very efficient without even trying.

Stands to reason they would be larger in gain unless they are
also encumbered with inert non radiating elements. To have extra
elements on a multi bander array to only accomodate a single band
gyrates towards a negative in my mind

> The exception is when there's strong coupling to or current flowing in the
> ground, as with a ground mounted vertical.) The EH and "cross field"
> antennas are no exception -- they're very small antennas, and all
> objective and credible measurements and modeling results show them to be
> very inefficient.

>Very true. But difficulty has not stopped the quest for smaller
antennas to achieve Zukof's statement about 'point radiation' in a
similar fashion to a flashlight (torch in the U.K.) and such a quest
will produce many failures on the way tho each failure also
constitutes a small advance.
If I remember correctly ,you yourself worked hard and long on a
verticle phasing problem and eventually met with success, but only
after unsuccessful attempts. It didn't stop you in your quest and you
finally won so we can hardly ridicule those who are experiecing
failure at the present time.

But for all the above I am heartened by your comment "it is difficult
to make a small...." which I totally agree with and I am encouraged
that you didn't say "impossible" which puts me on the same wavelength
as yourself.

Personaly I believe that my antenna work (I know ,it agravates many
of the members every year of this news group who deny my claim) is a
move forward in the state of the art. Like the typewriter it may take
twenty years before it is built upon, but I will not walk away from
what I do because many see it as a total failure and a 'waste' of
peoples time, the reason being is that I enjoy this type of
experimenting and sharing.

(Naysayers, I am in no way saying that I am an equal to Roy in
antennas and hopefully he is not 'wasting' his time with his 'sharing'
efforts with this newsgroup)

Best regards
Art

>
> Roy Lewallen, W7EL
>
> Art Unwin KB9MZ wrote:
> >
> > Yes Jim I have studied antenna theory so maybe this is a good time
> > to bring you up to par
> > The first run at antennas was to form a long wire as an antenna
> > but it was found that certain parts of the antenna produced
> > subtractive gains and the Yagi provided a solution for that which
> > started down the road to the ideal situation of getting maximum
> > efficiency by reducing element lengths down to a single point as
> > with a flash light or a lazer. There are a few attempting this pursuit
> > such as the EH antenna, the contra-wound and yes even the fractal.
> > In the main however the hobby has gyrated to bigger is better
> > regardless of efficiency. We also ignore aproaches to simplify our
> > construction of antennas of which enough is known to tell us that
> > only skin depth is of real concern and we should wean away from
> > aluminium tubing to lighter materials to carry the skin.
> > Of course many attempts of improvement fail but snide remarks do
> > not help. I was particular interested in how one person added
> > capacitors along the length of a antenna in a attempt to install many
> > phase changes in the hope that the radiation current curve would
> > become a straight line, A wonderfull concept that was poorly thout out.
> > Ofcource we do have examples where people have nullified negative radiation
> > such as the extended zepp ie. better efficiency tho I am bewildered why
> > capacity hats are not used. We also have long wires (bobtail) that
> > does a similar thing making use of phase changes to remove negative
> > radiation and increaseefficiency per unit lengtjh.

1588. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 18:05:18 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210301005.71957c3f@posting.google.com>
Source record: 132227

'Doc <w5lz@cwis.net> wrote in message news:<3DBF2011.CBEA590A@cwis.net>...
> Jim,
> This was the choices given, "A tapped coil at the base or
> just a fixed length vertical with an antenna tuner?". With
> that in mind, where would you think the 'best' place to match
> impedances would be, at the input of the antenna, or at the
> transmitter end of the feed line? Remember, this is a multi-
> band antenna. The feed line doesn't have to know when to
> change it's attenuation, or even have to change at all.
> 'Doc
> PS - Besides, I have 'smart' coax.

What you are refering to, Doc, is extra loss due to SWR mismatch,
which is in addition to the loss in the feedline.

I have done it both ways---match at the antenna or match at the rig
end of the coax. They both work.

But if you put the matching network at the feedpoint you will have to
1) run outside at 2am in the snow to change bands, 2) use a broadband
matching network (not easy to come by!), or 3) have a remote
switching/tuning system.

I think it is a matter of personal preference. Most recently I have
connected the coax directly to the bottom of my 35 foot vertical, and
use a matchbox at the rig. Seems to work fine, 160 to 40 meters.

Remember, most hams put too much emphasis on SWR anyway.

Jim
N8EE

1589. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 18:10:22 UTC
From: richardharrison@webtv.net
Message-ID: <6100-3DC0208E-63@storefull-2317.public.lawson.webtv.net>
Source record: 132230

Nelson Gietz wrote:
"The receiver (SP600) input is 100 ohms impedance. So....unbalanced to unbalanced."

Like Reg, I doubt any significant benefit from an impedance transformer between the antenna and receiver.

I used a SP-600 with a Beverage antenna in Europe to listen to US medium wave broadcasts for yearts after midnight when the locals signed off. This was on one of the world`s largest shortwave broadcast plant sites, we thought it was the biggest at the time, and we weren`t signed off! We also used SP-600`s with our Wayne Kerr admittance bridge for antenna adjustments while all the 100KW transmitters were shaking the aether all around us. We also had 51-J`s which proved worthless on the site due to overload and birdies.

Alas, I don`t have a SP-600 now, only a much more modest HQ-170 ham band only receiver. Its manual says:
"The HQ-170 is designed to operate with either single wire antenna or a balanced transmission line type."

It`s been about 45 years since I was operating SP-600`s but surely they are similarly equipped for either balanced or unbalanced antenna input. So, Nelson should be well equipped without any isolation signal transformer at the receiver.

Hammarlund also says of the HQ-170:
"The single wire or balanced antenna for the remaining bands (other than 6-meters) is connected as shown in Figure 2 or 3.
The front panel antenna trimmer control (Figure-5) permits a good impedance match to most antenna systems of 50 to 600 ohms (on all bands).
For general coverage, single wire antenna of 20 to 50 feet length will provide surprisingly good reception. (We nearly always used rhombics.) A long single wire outdoor antenna, such as the one shown in Figure 2, will generally provide entirely satisfactory performance. This wire may be 50 to 150 feet long.

For best reception, the antenna should be isolated as much as possible from neighboring objects and at right angles to power lines or busy highways so as to minimize interference pickups.

Optimum performance on a particular amateur band or other narrow tuning range will be obtained by using a tuned half-wave dipole or folded dipole using 300 ohm transmission line or other suitable lead-in, as shown in Figure 3.

To tune the one-half wave length dipole use the following formula to determine the length of the antenna:
Length (feet) = 468 / Freq. (MHz)

Each arm (1/4 wave length) is half the length obtained from the above formuls.

A good ground, although not always necessary, will generally aid reception and reduce stray line hum.

Best regards, Richard Harrison, KB5WZI

1590. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 18:12:04 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210301012.6f2578b7@posting.google.com>
Source record: 132228

"Vic Fraenckel" <vfraenc1@nycap.rr.com> wrote in message
news:<IwBv9.40490$c51.11101125@twister.nyroc.rr.com>...

[snipped]

> I am interested in JPole antenna because I support a manned gas (hydrogen)
> balloon that participates in long distance (100's of miles or more)

Question for you, Vic....

You actually use Hydrogen?? Remember what happened to the Hindenberg?

Wouldn't Helium be safer?

Jim
N8EE

1591. Re: help shunting feeding tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 18:45:16 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DC028BC.F34745A2@cwis.net>
Source record: 132229

Larry,
I would tend to think that shunt feeding your tower
should work, there's one easy way to find out. Try it.
'Doc

1592. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 18:49:03 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DC0299F.111006DD@cwis.net>
Source record: 132231

Jim,
Which is what I said to start with...
'Doc

1593. Re: help shunting feeding tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 19:14:59 UTC
From: Bill Ogden <ogden@us.ibm.com>
Message-ID: <3DC02FB3.62C08BC2@us.ibm.com>
Source record: 132232

U.S.Towers said the answer is "no", there is not sufficient connectivity in the crankup tower. However, it appears that the tower manufacturers' answers to almost any question is "no" due to potential legal exposures.

I asked the question on the Towertalk server, and a number of people replied that they are using their crankup towers (including the TX455) as verticals without problems. A few said that they ran a separate wire from the top to the bottom. Most did not. No one said that they had tried it and it failed. YMMV.

I plan to try it (using a half-sloper instead of shunt feeding) when I get my TX-455 in place. (I am currently wondering how much over specification there is in the concrete requirements for the base. I have 150% of the amount of concrete they specify, but mine is not as deep as they specify.)

Bill Ogden
W2WO

1594. Re: Homebrew Force 12 Sigma 5

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 19:34:33 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <d5a0su04iu1nkcbb008hr0pd71sf0884dm@4ax.com>
Source record: 132233

On Wed, 30 Oct 2002 16:50:18 GMT, burgoyne@faux9bit.qc.ca (Stephan) wrote:

>What would analysis say about these sigma antennas ? I mean, about
>using long T-bars at the end of their dipoles, what does it say for
>efficiency, radiation angle, etc ?
>
>I think the sigma 20 is roughly 16 feet overall with 13 feet T-bars at
>the ends?

Hi Stephan,

You can do this yourself with the free version of EZNEC (become one of that army of experts that populate the wide world web).

For the rest:
the Sigma 20 looks its best at 25ï¿½ with an astounding -0.08dBi....
drivepoint Z = 69.45 + J 192.2 ohms
(if we flung it high, into outerspace, Z = 43 + J 182 ohms)

Analysis reveals that the antenna structure is naturally resonant at a much lower frequency of 11.6MHz. So, as the SWR of the naked structure does not compare to the advertising literature claims, some mild speculation (in their ad's favor) would tend toward there being a passive component added to shift the frequency. This speculation is supported by their claim of a direct 50 Ohm feed.

Again, using EZNEC, I added a -200 Ohm load near the source feed (a cap in series) and the resonance dropped dead on to 20M. Further, the SWR shows a BW of 13.4MHz..14.7MHz - and conforms to their ad:
>The operating bandwidth is <1.5:1 across the whole 20 meter band.

This being a short near ground antenna sparked a moment of reflection with a derivative design, an "optimal" one from the fractal kitchen:
http://www.qsl.net/kb7qhc/antenna/fractal/n1ir/k2/index.htm
which, when you scroll down to the simple alternative, you will find to be the Sigma style doing quite well (even if not optimal :-)

73's
Richard Clark, KB7QHC

1595. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 19:47:15 UTC
From: richardharrison@webtv.net
Message-ID: <23174-3DC03743-118@storefull-2318.public.lawson.webtv.net>
Source record: 132235

Art Unwin, KB9MZ wrote:
"---the Yagi provided a solution for that (long-wire destructive interference in the desired direction) which started down the road to an ideal situation by reducing element lengths down to a single point as with a flash light or lazer.'

Antenna loading coils started down the road to a single point source antenna. Gain is produced with equal, if not better, control by using all driven-elements instead of parasitic elements. This predates the parasitic-element Yagi. The Yagi advantage is the convenience of a single feedpoint.

No mystery exists. An elemental (very small) dipole can radiate unlimited energy given unlimited current. Problem is system efficiency in making energy flow into a very small antenna. The flash light and laser aren`t really small in terms of wavelength. The flash light reflector is bigger than most microwave reflectors I`ve heard of in terms of wavelength.

Fame and fortune might come to the inventor of a tiny antenna system with a large radiation resistance and a small total loss resistance.

Best regards, Richard Harrison, KB5WZI

1596. Re: Homebrew Force 12 Sigma 5

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 19:53:28 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <vgd0suc77pnha7j70pn98nbjnecmhtj592@4ax.com>
Source record: 132234

On Wed, 30 Oct 2002 19:34:33 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

>
>This being a short near ground antenna sparked a moment of reflection
>with a derivative design, an "optimal" one from the fractal kitchen:
>http://www.qsl.net/kb7qhc/antenna/fractal/n1ir/k2/index.htm
>which, when you scroll down to the simple alternative, you will find
>to be the Sigma style doing quite well (even if not optimal :-)
>
>73's
>Richard Clark, KB7QHC

Hi All,

Odd how thoughts borne of one idea careen into other threads. In
reflecting on the simple side-by-side comparison made between the
Sigma style and fractal style antennas, a revelation came in terms of
Cost and FOM.

Which of these two (if the book-cooks could jimmy this in their favor,
they would) has proven to be more successful in the real world?

1.) The fractal with an 0.0138 FOM advantage - and never built after
its inception much less produced for sale to the 20M community?

Or

2.) The Sigma with the Cost advantage selling quite well for years,
thank you, to that same 20M community?

73's
Richard Clark, KB7QHC

1597. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 20:22:22 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210301222.776d1435@posting.google.com>
Source record: 132236

tayl0rr@yahoo.com (Robert) wrote in message
news:<ff33c2c3.0210281059.4ecded93@posting.google.com>...
> Which is preferable on a homebrew multiband vertical antenna. A
> tapped coil at the base or just a fixed length vertical with an
> antenna tuner? I'm thinking the tapped coil, with a tuner, but would
> like a little explanation if possible?

You don't say where the tuner would be mounted.. A tapped coil would probably be less loss than using an autotuner at the base of the antenna. The reason I say this is because the tapped coil would likely be a larger and more efficient inductor than the likely smaller one in an autotuner. But the autotuner would be much easier to change bands. If you use a tapped coil, you really don't need a tuner. You may well need a bit of impedance matching though. Think of the antenna as a tall "bugcatcher". Using a tuner at the shack, feeding coax, and then a vertical with no coil, would be the worst way to go. Quite a bit of loss on certain bands due to the high SWR on the coax. You should match at the antenna.
>
> What band should the radials be set for? If full size radials are not
> possible should they just be made as long as possible?

If a ground mount, the most loss is at the base. So thats where you want the bulk of the wire. Many short radials are better than just a few long ones for a certain amount of wire. Of course, the more of them, and the longer, the better.
>
> Is there a faq for vertical antennas?

Dunno...
>
> I would like to build a simple multiband antenna for 10-80 meter, but
> I have limited space, only about 30' horizontal for something like a
> dipole, but the neighbors wouldn't mind seeing a single vertical
> sticking up above the house 20-30'.

If this antenna is elevated, the radials must be resonant for each band used. That means for each band used, you need at least one or more 1/4 wave radial. On certain bands, a lower band 1/4 wave radial can be used as a 3/4 wave radial on a higher band if it works out that way. IE: a 40 m 1/4 wave radial will function on 15m as a 3/4 wave radial. 1/2 wave radials will not work. Random length radials on an elevated antenna will not work well either. They must be resonant and show a low impedance to function. If you plan on 80-10 use, it may well be easier to use a ground mount. That way radial length doesn't

matter, and you can get to a tapped coil to change bands on the antenna. Also , you have access to any matching device used, if you would need to adjust it. MK

1598. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 20:43:37 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC04479.F980905A@ieee.org>
Source record: 132237

Mark Keith wrote:
> You don't say where the tuner would be mounted.. A tapped coil would
> probably be less loss than using an autotuner at the base of the
> antenna. The reason I say this is because the tapped coil would likely
> be a larger and more efficient inductor than the likely smaller one in
> an autotuner. But the autotuner would be much easier to change bands.

Incidentally, High Sierra has a screwdriver vertical for fixed or
portable use.
--
cheers, CAM http://www.qsl.net/w5dxp

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1599. building medium / shortwave loops ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 21:04:15 UTC
From: rsnijders@hetnet.nl
Message-ID: <ee0c80f6.0210301304.26972466@posting.google.com>
Source record: 132238

Hello,

I am planning to make a Loop antenne to use on mediumwave and perhaps on shortwave, now i would like to now the following:

1) is there a formula to calculate the wire lenght ?

2) is there a formula to calculate the frame size ?

Perhaps its seem stuppid, but i find a few pictures of this loops, but there are no calculation on FREQUENCY versus WIRELENGHT

So if you can give me the answer or someone nows that can help me, i will be thankfull.

Greetings and gd dx-ing

Ron (pd1anb)

1600. Re: building medium / shortwave loops ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 21:24:38 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC04E16.8614B61D@ieee.org>
Source record: 132239

ron wrote:
>
> Hello,
>
> I am planning to make a Loop antenne to use on mediumwave and perhaps
> on shortwave, now i would like to now the following:
> 1) is there a formula to calculate the wire lenght ?

A common value to use is 1005/F where the result is in feet. For
instance, a loop for 10.05 MHz would be 100 ft around.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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1601. Re: building medium / shortwave loops ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 21:29:24 UTC
From: Bill M <exray@no>
Message-ID: <us0jlhejorr57d@corp.supernews.com>
Source record: 132240

ron wrote:
>
> Hello,
>
> I am planning to make a Loop antenne to use on mediumwave and perhaps
> on shortwave, now i would like to now the following:
>
> 1) is there a formula to calculate the wire lenght ?
>
> 2) is there a formula to calculate the frame size ?
>
> Perhaps its seem stuppid, but i find a few pictures of this loops, but
> there are no calculation on FREQUENCY versus WIRELENGHT
>
> So if you can give me the answer or someone nows that can help me, i
> will be thankfull.
>
> Greetings and gd dx-ing
>
> Ron (pd1anb)

You'll find everything you need here. If you have Excel there is an
excellent calculator link.
http://www.mindspring.com/~brucec/amloop.htm
I don't think you'll find much on SW loops because they generally are
not very effective.

-BM

1602. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 21:35:02 UTC
From: "Eric C. Weaver" <weav@sigma.net>
Message-ID: <3dc05094@news.announcetech.com>
Source record: 132241

JLB wrote:

> You actually use Hydrogen?? Remember what happened to the Hindenberg?

What happened on the Hindenberg was that the paint, which they didn't know was formulated rather like rocket fuel, caught fire and roasted people. The H2 flared off upward away from the people, as it tends to do.

Helium is much rarer (and I expect more expensive) than plain H2.

Not speaking for Vic here.

1603. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 21:52:20 UTC
From: fractenna@aol.com
Message-ID: <20021030165220.10817.00002282@mb-mq.aol.com>
Source record: 132242

>The flash light
>reflector is bigger than most microwave reflectors I`ve heard of in
>terms of wavelength.
>

Its fun to do this calculation Richard; I used to assign it in my bioastronomy class:-) Actually, you are being a bit conservative in your statement.

73,
Chip N1IR

1604. Anybody want to check out pics of my antenna setup

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 22:21:16 UTC
From: Recordking@Hotmail.com
Message-ID: <e8d89b3f.0210301421.d2853e7@posting.google.com>
Source record: 132243

Take a look a look at these pics and tell my what you think of the setup and what I should do differently. Their are three antennas in these pics 1 5/8 wave 2 scanner 3 tv/fm. I can only Email these pics to you so give me your Emaill address if you want to check these pics out.

1605. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 22:27:59 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <P1Zv9.15312$VJ5.899050@bgtnsc05-news.ops.worldnet.att.net>
Source record: 132244

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:23174-3DC03743-118@storefull-2318.public.lawson.webtv.net...

> Fame and fortune might come to the inventor of a tiny antenna system
> with a large radiation resistance and a small total loss resistance.
>
> Best regards, Richard Harrison, KB5WZI
>

Hi Richard,

I doubt the fame and fortune part. To a great extent, the small antenna issue has been solved however.

Less than 0.06 WL tall, self-resonant, 55 ohm radiation resistance, efficiency greater than 95%, Q within 1.5X fundamental limit, operates in a vertically polarized monopole/dipole mode.

Steve VE9SRB

1606. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 22:36:57 UTC
From: richardharrison@webtv.net
Message-ID: <17759-3DC05F09-5@storefull-2315.public.lawson.webtv.net>
Source record: 132245

Chip, N1IR wrote:
"It`s fun to do this calculation (scale of microwaves vs light
waves)---."

Yes. We tend to think of microwaves in the millimeter range as small. An Angstrom unit (micrometer) is smaller. A nm (nanometer) is very small indeed.

I hoped to avoid hyperbole and was guilty instead of understatement.

Best regards, Richard Harrison, KB5WZI

1607. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 22:57:26 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DC063C4.68EF0BEB@bellatlantic.net>
Source record: 132246

Art Unwin KB9MZ wrote:

> Think about it, we think of gain as an order of merit
> so the tribander with double the element length of a 1/2 wave
> dipole has the SAME 'order of merit".

Your equation seems to be merit = gain/length.
Use upper case for the dipole and lower case for the
tribander. You specified M = m and L = l/2.
Substituting: G/L = g/l; G/L = g/2L; therefore G = g/2

If that is true, then the gain for each band in the
tribander must be 2/3 the gain of the dipole.

Real world, the gain on each of those bands is ballpark
4 Dbd greater than a dipole if you are talking about a
yagi. You seem to be, as you mentioned turning radius.
If you are talking about a trapped dipole, then the
length is approximately the same.

So the conclusion is:
1) merit cannot equal gain/length
or
2) if merit does equal gain/length, then
the merit for a dipole cannot equal the merit for
a tribander twice as long.
or
3) I have not understood what you said.

And I am really lost on where you get the length.
Dipole length is clear, but how do you arrive
at the length for the tribander? If it is a
yagi and you are talking total element length,
wouldn't the tribander length be roughly 3 times
the dipole length? Does turning radius fit in
to the length computation somehow?

> We complain of those who misuse 'gain' figures
> as an order of merit where the average amateur is
> more interested in max gain per turning radius (unit length)
> over real ground.
> Is it time to put our own house in order ?
>
> Art

1608. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 23:16:07 UTC
From: richardharrison@webtv.net
Message-ID: <11977-3DC06837-39@storefull-2318.public.lawson.webtv.net>
Source record: 132247

Steve, VE9SRB wrote:
"Less than 0.06 WL tall, self-resonant, 55 ohm radiation resistance,
efficiency greater than 95%, Q within 1.5x fundamental limit---."

OK. I am an ignoramus. There must be a rub. The conductor must be cooled near absolute zero? The antenna wave propagation must be slowed by a special unobtainium dielectric material to shrink antenna size? Or, what`s the trick?

I think I qualified my statement, saying something about TOTAL system efficiency just to try to avoid mis-statement on a technicality.

Best regards, Richard Harrison, KB5WZI

1609. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-30 23:48:01 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC06FB1.7989CE62@ieee.org>
Source record: 132248

"Eric C. Weaver" wrote:
> Helium is much rarer (and I expect more expensive) than plain H2.

Texas has a corner on the helium market. :-) They wouldn't give any
to the Nazis and that's why the Hindenburg blew up.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1610. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 00:00:33 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <Bo_v9.5351$et4.933892@news20.bellglobal.com>
Source record: 132249

"VE9SRB" mentioned:
> To a great extent, the small antenna issue has
> been solved however. Less than 0.06 WL tall,
> self-resonant, 55 ohm radiation resistance,
> efficiency greater than 95%, Q within 1.5X
> fundamental limit, operates in a vertically
> polarized monopole/dipole mode.

If you could also make it frequency agile from 2MHz to (X)X GHz (upper limit seems to vary), then there are some "MIB" that might be interested. I trust that they're not asking for too much... ;-)

> I doubt the fame and fortune part.

Oh, cost is no object.

1611. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 00:08:09 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <Jv_v9.37081$Mb3.1621677@bgtnsc04-news.ops.worldnet.att.net>
Source record: 132250

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:11977-3DC06837-39@storefull-2318.public.lawson.webtv.net...

>
> OK. I am an ignoramus.

I don't think so.

>There must be a rub. The conductor must be cooled
> near absolute zero? The antenna wave propagation must be slowed by a
> special unobtainium dielectric material to shrink antenna size? Or,
> what`s the trick?
>

No trick at all. It's a real antenna. Designed, modeled, built and tested.
Electrically small (h < 0.06 WL), radiation resistance matched to 50 ohms,
high efficiency (low loss resistance), low Q, vertically polarized monopole
pattern.

Steve VE9SRB

1612. end loaded antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 00:37:40 UTC
From: inagaddadavida@webtv.net
Message-ID: <24435-3DC07B54-47@storefull-2176.public.lawson.webtv.net>
Source record: 132252

i use a dx399 shortwave radio in a dumptruck. my antenna is six feet of wire strung from the mirror down to the dog on the hood. (the bulldog looks like it is straining at a leash) daytime shortwave reception is surprisingly good but medium wave is terrible. (the antenna jack uncouples the ferrite antenna) as i was driving today i wondered if a coiled length of wire at the end would help, if for no other reason then by getting more wire into the air. is there any benefit to a wide band antenna to be loaded in some manner? (those fiberglass cb antennas for trucks seem to be like that, all coiled at the end) or would this narrow the frequencies received? is there a formula that tells how much wire i can coil before it starts to choke out the frequencies of interest? would this small amount of added wire add enough signal to bother with? and how can i get enough wire out the window of a dumptruck to receive medium wave?

1613. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 01:19:12 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <ky%v9.37221$Mb3.1629514@bgtnsc04-news.ops.worldnet.att.net>
Source record: 132253

"Larry Phipps" <larry@telepostinc.com> wrote in message
news:Jz%v9.3014$z5.2142853@newssvr28.news.prodigy.com...
> .06 WL tall dipole with huge tophats......or small loop made of 2"
diameter
> gold plated tubing?
>
> --

It operates in a fundamental series resonance and operates in a
monopole/dipole mode. There is no top lodaing. It is however more of a
loop configuration than a monopole. The wire diameter is about 2.6 mm and
is made of copper.

Steve VE9SRB

1614. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 01:20:41 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <Jz%v9.3014$z5.2142853@newssvr28.news.prodigy.com>
Source record: 132251

.06 WL tall dipole with huge tophats......or small loop made of 2" diameter
gold plated tubing?

--
Larry N8LP

"VE9SRB" <srbest@att.net> wrote in message
news:Jv_v9.37081$Mb3.1621677@bgtnsc04-news.ops.worldnet.att.net...
>
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:11977-3DC06837-39@storefull-2318.public.lawson.webtv.net...
>
> >
> > OK. I am an ignoramus.
>
> I don't think so.
>
> >There must be a rub. The conductor must be cooled
> > near absolute zero? The antenna wave propagation must be slowed by a
> > special unobtainium dielectric material to shrink antenna size? Or,
> > what`s the trick?
> >
>
> No trick at all. It's a real antenna. Designed, modeled, built and
tested.
> Electrically small (h < 0.06 WL), radiation resistance matched to 50 ohms,
> high efficiency (low loss resistance), low Q, vertically polarized
monopole
> pattern.
>
> Steve VE9SRB
>
>

1615. Re: help shunting feeding tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 01:59:30 UTC
From: k9sqg@aol.com
Message-ID: <20021030205930.29518.00000456@mb-cm.aol.com>
Source record: 132254

Larry,

Your best bet would be to use some finger stock, stainless steel strapping, or something that allows a movable, electrically conductive connection at each tower section.

73s,

Evan

1616. Mini Quad Web Page Update

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 02:13:37 UTC
From: G&R <"stop the spam"@limbo.hell>
Message-ID: <Vh0w9.4817$qD2.922784@news20.bellglobal.com>
Source record: 132255

We have done a major update on our web site www.degendesigns.com.

We have added photos and reviews of our products.

Looking forward to your visits and comments.

73,

Guenther Schweigl VE3CVS
info@degendesigns.com

1617. help needed in microstrip antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 02:36:35 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0210301836.17aa6188@posting.google.com>
Source record: 132256

Hi there,
I am doing my thesis on microstrip antennas for mobile
communication. I need some fresh ideas regarding this. I am struck
because i could not find any new topic in this. Kindly help.

Thanks in advance.

1618. Re: help needed in microstrip antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 02:52:01 UTC
From: fractenna@aol.com
Message-ID: <20021030215201.07703.00001519@mb-mn.aol.com>
Source record: 132257

>Hi there,
> I am doing my thesis on microstrip antennas for mobile
>communication. I need some fresh ideas regarding this. I am struck
>because i could not find any new topic in this. Kindly help.
>
>Thanks in advance.
>
>

Where are you from ? Institution? Location?

Best,
Chip N1IR

1619. Re: "Drive-On" Antenna Mounting Base

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 03:09:49 UTC
From: George Kinzer <horseflygk@worldnet.att.net>
Message-ID: <1a1w9.37399$Mb3.1640649@bgtnsc04-news.ops.worldnet.att.net>
Source record: 132258

why not a tube of steel (slightly larger) welded to a 10" plate, holes to mount
to spare tire,(3 or 4 lugs is enough) tube is to be 1 foot per 10 feet of mast. Dont forget to properly ground the antenna per ground wire, ect.. Lay out mast on ground, attach ant, mount plate, lean it to insert mast, lay it upright, waa laa.
I dont like the idea of having to drive on to a plate..has anyone been injured when you drive off? does using your idea
require two or more individuals? How high is the mast?
--
If first you don't succeed, do the same thing again...see what happens

Those who want to be successful, will find a way,
those that don't, will find an excuse!

1620. Re: Looking for:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 03:11:04 UTC
From: George Kinzer <horseflygk@worldnet.att.net>
Message-ID: <cb1w9.37406$Mb3.1641897@bgtnsc04-news.ops.worldnet.att.net>
Source record: 132259

do a search using your search engine.....i came up with 30 sites...

--
If first you don't succeed, do the same thing again...see what happens

Those who want to be successful, will find a way,
those that don't, will find an excuse!

1621. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 03:12:59 UTC
From: Vic Fraenckel <vfraenc1@nycap.rr.com>
Message-ID: <%c1w9.43967$c51.13103898@twister.nyroc.rr.com>
Source record: 132260

Jim,

Hydrogen is used all the time in Europe and the balloon I crew for was built in Germany and is dual rated for both hydrogen and helium. It has only been the last few years that hydrogen has been used here in the US. It is somewhat safer to use helium, but it is perhaps 4-6 times as expensive. The high expense has hindered growth of the gas balloon pilot population in the US.

Sorry to get off topic.

Vic
--

_____

Victor Fraenckel - The Windman vfraenc1@nycap.rr.com
KC2GUI www.windsway.com

Home of the WindReader Electronic Theodolite
Read the WIND

"Victory at all costs, victory in spite of all terror, victory however long and hard the road may be; for without victory there is no survival."
- Winston [Leonard Spencer] Churchill (1874 - 1965)

Dost thou not know, my son, with how little wisdom the world is governed?
-Count Oxenstierna (ca 1620)

"JLB" <jim.bolinger@lintek.aeroflex.com> wrote in message news:8d5ec8a2.0210301012.6f2578b7@posting.google.com...
| "Vic Fraenckel" <vfraenc1@nycap.rr.com> wrote in message news:<IwBv9.40490$c51.11101125@twister.nyroc.rr.com>...
|
| [snipped]
|
| > I am interested in JPole antenna because I support a manned gas (hydrogen)
| > balloon that participates in long distance (100's of miles or more)
|
| Question for you, Vic....
|
| You actually use Hydrogen?? Remember what happened to the Hindenberg?
|
| Wouldn't Helium be safer?
|
| Jim
| N8EE

1622. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 03:16:38 UTC
From: scott <acepilot@bloomer.net>
Message-ID: <3DC0A096.C4C3C163@bloomer.net>
Source record: 132261

Please clarify (I'm tired and cranky)...is the antenna to be mounted on the airship or for use by a ground station? If ground based, I would suggest the "Copper Cactus" J-Pole. Works really nice...use mine on 2M and 440.

Scott
N0EDV

Vic Fraenckel wrote:

> I am interested in JPole antenna because I support a manned gas (hydrogen)
> balloon that participates in long distance (100's of miles or more)
> competition. I need to support voice communications in the 154MHz region at
> about 10 watts, APRS transmissions in the 2Meter Ham band at 5 watts and
> Aircraft communications in the 123MHz region at 10 watts occasionally
> boosted to 20 watts if needed. The average altitude for the balloon is
> 5-6000 feet but can range up to 15,000 feet and down to 2-300 feet. For many
> years we have used dipoles worked fine but were "spikey" in the physical
> sense that subjected the balloon and crew (2 man) to possible physical
> injury especially during launch and landing. I got onto JPoles two years ago
> because they could be fabricated from TV Twin Lead and a length of coax.
> They proved to be safer and were cheap to build. The JPoles were also
> somewhat luighter than the dipole stuff we were using which was a small
> bonus.
>
> I would like to hear some comments concerning their use and usefulness.
>
> Any enlightenment will be appreciated.
>
> Vic
> --
> ____
>
> Victor Fraenckel - The Windman vfraenc1@nycap.rr.com
> KC2GUI www.windsway.com
>
> Home of the WindReader Electronic Theodolite
> Read the WIND
>
> "Victory at all costs, victory in spite of all terror, victory however long
> and hard the road may be; for without victory there is no survival."
> - Winston [Leonard Spencer] Churchill (1874 - 1965)
>
> Dost thou not know, my son, with how little wisdom the world is governed?
> -Count Oxenstierna (ca 1620)

--

Scott
http://corbenflyer.tripod.com
http://groups.yahoo.com/group/ParasolAirplanes
Building RV-4
Gotta Fly or Gonna Die!

1623. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 03:27:25 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DC0B161.26D6FFBB@townsqr.com>
Source record: 132262

Brian Kelly wrote:

> fractenna@aol.com (Fractenna) wrote in message
news:<20021028191646.27717.00001046@mb-mf.aol.com>...
> > Unfortunately, Mike, it pays to use PVC pipe.
> >
> > As soon as even a little nibble is done on the jacket, water seeps in and
> > destroys the coax. Its slow, but a year may go by until you wonder why the SWR
> > is so good but you can't break pile ups anymore...
> >
> > Water seepage is the real problem. The critters are just the delivery system.
> >
> > Try renting a Ditch Witch and the pipe will go in pronto.
> >
> > 73,
> > Chip N1IR
>
> It ain't just rodents . . I wuz pounding 40cw in some dx contest or
> another back when at the W3WJD multi-multi and all of a sudden the amp
> went bonkers. Got down to hoofing along the the coax to the 40m tower
> with a flashlight at 2am or whatever ugly hour it was . . turned out
> that the station owner's big outdoor guard mutt decided to have a
> snack on the cable. Output suds from the 4-1000A be damned.
>
> w3rv

One TUFF puppy!

Dick

1624. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 04:27:10 UTC
From: tdonaly@aol.com
Message-ID: <20021030232710.21371.00001915@mb-mu.aol.com>
Source record: 132264

>
>"Eric C. Weaver" wrote:
>> Helium is much rarer (and I expect more expensive) than plain H2.
>
>Texas has a corner on the helium market. :-) They wouldn't give any
>to the Nazis and that's why the Hindenburg blew up.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>
>
Which end is it produced from?
73,
Tom Donaly, KA6RUH

1625. Re: end loaded antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 04:27:19 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DC0B127.8F1D1345@cwis.net>
Source record: 132263

Jim,
Adding a loading coil can't hurt. I doubt if it's going to make a 'world' of difference, though. Try down loading one of Reg's programs called 'Botload" (I think?). Plug in the numbers for your wire and see what you get.
'Doc

1626. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 04:46:35 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DC0B5AB.6D97A542@cwis.net>
Source record: 132265

ehsjr,
You haven't discovered the trick of reading Art's
post yet. First you have to decode what he means
when he says 'tribander'. An 'Art' tribander isn't
a three band yagi like you might suspect. In this
case, it happens to be a three band rotatable dipole.
And he seems to think that removing the traps and
using the 'full length' of the dipole on all three
bands should be not only possible, but 'better'.
The 'decoding' process isn't too difficult, it
just takes time (or in my case, someone told me),
but is essential for understanding...
'Doc

1627. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 05:52:52 UTC
From: richardharrison@webtv.net
Message-ID: <23872-3DC0C534-66@storefull-2317.public.lawson.webtv.net>
Source record: 132268

I wrote:
"An Angstrom unit (micrometer) is smaller. A nm (nanometer) is very small indeed."

Bart Rowlett e-mailed me to say an Angstrom unit is not a micrometer. It`s smaller. My dictionary agrees with Bart. It says an Angstrom unit is a tenth of a millimicron. I believe that makes the Angstrom unit 10 to the minus 10th meter.

Sorry I didn`t check the number I took from a handbook.

Best regards, Richard Harrison, KB5WZI

1628. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 05:55:23 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC0C5CB.C9144133@ieee.org>
Source record: 132266

'Doc wrote:
>
> ehsjr,
> You haven't discovered the trick of reading Art's
> post yet. First you have to decode what he means
> when he says 'tribander'. An 'Art' tribander isn't
> a three band yagi like you might suspect. In this
> case, it happens to be a three band rotatable dipole.
> And he seems to think that removing the traps and
> using the 'full length' of the dipole on all three
> bands should be not only possible, but 'better'.

I use a 33 ft rotatable dipole for 20m, 17m, 15m, 12m, & 10m.
It is an even better antenna on 10m than it is on 20m. I feed
it with a variable length 300 ohm ladder-line and it requires
no antenna tuner.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1629. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 06:14:14 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apqhnmjmc1@sparta.btinternet.com>
Source record: 132267

"CAM" wrote -
> I use a 33 ft rotatable dipole for 20m, 17m, 15m, 12m, & 10m.
> It is an even better antenna on 10m than it is on 20m.
============================

Not after midnight it isn't. ;o)

Reg.

1630. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 06:22:51 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DC0CC3B.41B8AA18@cwis.net>
Source record: 132169

Richard,
Don't sweat the 'small' stuff...
'Doc

1631. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 07:13:06 UTC
From: richardharrison@webtv.net
Message-ID: <12720-3DC0D802-74@storefull-2312.public.lawson.webtv.net>
Source record: 132171

Doc, W5LZ wrote:
"Don`t sweat the small stuff."

Thank you for the advice. My unfamiliarity with optical wavelengths is obvious.

I`ve sometimes wished Johnson & Smith or someone sold fantastic eye glasses which converted r-f to the visible spectrum for easy exhibition of radiation patterns. J&S used to advertise "X-ray glasses" but I suspected they operated via the user`s imagination. Film and other media can be sensitive to radiation outside the limited spectrum humans are sensitive to, but all the r-f patterns I`ve seen were plots.

Best regards, Richard Harrison, KB5WZI

1632. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 07:41:13 UTC
From: dplatt@radagast.org
Message-ID: <us1nkp7sittj8a@corp.supernews.com>
Source record: 132170

> You haven't discovered the trick of reading Art's
>post yet. First you have to decode what he means
>when he says 'tribander'. An 'Art' tribander isn't
>a three band yagi like you might suspect. In this
>case, it happens to be a three band rotatable dipole.
>And he seems to think that removing the traps and
>using the 'full length' of the dipole on all three
>bands should be not only possible, but 'better'.

Seems to me that in principle, it _might_ be possible to do a dualbander (10/20) somewhat along the lines of what Art is proposing. Rather than a simple set of traps, you'd install some sort of phasing section in the middle... maybe a bent-around transmission-line loop like the Maritime Super J-Pole uses. This would, in principle, allow the two halves of each element to act in a collinear fashion and give a bit of directional gain.

I think you'd still need to install a set of traps (or a relay) inside the loop of each phasing section, to "short it out" for operation on 20 meters. Otherwise, you'd end up with a really funky 20... quarterwave radiator on the inside, a quarterwave non-radiating phasing loop, and then another quarterwave radiator on the outside which would be entirely out of phase with the inner quarterwave. I don't imagine that the combination would radiate terribly well ;-)

I'm not sure how you could shoehorn a 15-meter antenna into this arrangment... use a standard 15M trap outside the phasing section, I guess. I can't see any way to fit a two-segment 15-meter collinear into a 20 and make it work.

I'm not convinced that this approach is at all worth doing, though. Yes, it could give a few dBd of gain on 10 meters, compared to a standard triband trap dipole having the same element length. However, the added phasing sections would be quite a lot heavier than a standard trap and would add significantly to the antenna's wind cross-section. They'd add weight, hassle, and might require the use of thicker elements to hold up the weight (which would be halfway out the element, adding quite a bit of lever arm).

I'd probably just go with a triband short-boom two-element trap Yagi, since that would give (I suspect) equal or better forward gain on 10 (and quite a bit better on 15 and 20), and a useful front-to-back ratio (which a phased collinear dipole would lack), with only a very modest increase in turning radius compared to the original trap dipole.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1633. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 08:19:50 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apqp34jso1@helle.btinternet.com>
Source record: 132172

> My understanding is that by
> using the coax with grounded
> shielding to feed to the receiver,
> I can reduce local noise pickup.
==========
There's only one thing I'm sure of - it won't make it worse!

If depends on noise characteristics and what sort of parasitic antennas it radiates from. It's all near-field stuff. In the domestic situation with wires galore, unless the receiving antenna runs alongside a power or lighting cable for an appreciable distance, screening the antenna wire might not make much difference. If it's noise spikes as from on/off switches and thermostats in the neighborhood much of the rubbish will be picked up by the unprotected parts of the antenna anyway.

If the noise sources are very local fluorescent lights, TV receivers, computers, switcher power supply harmonics, etc., and the coax is long enough to remove the whole of the antenna right into the back yard, then there should be an improvement. I have often been in that sort of situation myself but I confess I have never done any A-B tests. And I have never kept any antenna long enough to make an indoors permanent installation of it.

Perhaps grounding BOTH ends of the coax would be beneficial. It would certainly change the circuit configuration and the sort of coupling which takes place.

The usual connection to 'ground' from the receiver itself is an integral part of the receiving system. It is surrounded by noise radiators and ends by being connected to a noise generator - the incoming domestic power supply. To ask a rhetorical question - should the receiver power lead be replaced with twin-ax ?

I have found a choke wound on a ferrite rod inserted in the 50Hz mains lead to be beneficial. At least it makes one feel more relaxed until the XYL's vaccuum cleaner is switched on!

(PS. Switcher power supply ferrites should NOT be used for HF wideband transformers. And un-un's do not smooth out the peaks and troughs in antenna impedances. The peak/trough ratio remains unchanged. But the MEAN mismatch loss between a 600-ohm antenna wire and a 50-ohm receiver, over the MF and HF bands, is reduced by a few dB.)

Reg, G4FGQ

1634. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 10:22:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us213fg5ek0f9d@corp.supernews.com>
Source record: 132173

Reg Edwards wrote:
> . . .
> (PS. Switcher power supply ferrites should NOT be used for HF wideband
> transformers. . .

Why is this? Low frequency ferrites (e.g. Fair-Rite 70 series or type 43) are commonly used for HF wideband transformers, except for very high power levels where heating might be a problem. The two switching supplies I've designed for production have used ferrites which would be very suitable for HF wideband transformers. What ferrite characteristics are you thinking of that would make some unsuitable?

Roy Lewallen, W7EL

1635. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 10:43:09 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <5RLYdBC9kQw9EA6m@ifwtech.co.uk>
Source record: 132174

Reg Edwards wrote:
>
>I have found a choke wound on a ferrite rod inserted in the 50Hz mains
>lead to be beneficial.

Adding to Reg's good advice...

A number of people have done the same with a stack of 6-7 2in ferrite rings, and it seems to work well. The single mains feed to *all* the radio gear goes through this choke - with British mains wiring, that is three wires: live, neutral and safety ground.

The reason for using so many ferrite rings is that there's a limit to the number of turns of triple heavy mains wire that you can wind on a 2in core. Therefore you need either bigger cores or more of them in a stack (superglued together). Another way of getting a big chunk of suitable ferrite is to use the core from a scrapped TV deflection yoke - apparently about 10 turns is good for HF. It's not pretty, but at least it's free.

The choke prevents RF from either entering or leaving the radio gear via the mains wiring. It does not affect the mains safety ground connection, but it means that the mains ground is not trying to act as your RF ground as well.

It's generally better not to attempt an RF ground connection from the shack, especially not if it's upstairs. Balanced antennas don't need an RF ground, and attempting to provide one may make the RFI situation worse. For antennas that do need an RF ground, it should be right out there at the antenna.

>At least it makes one feel more relaxed until the XYL's vaccuum cleaner
>is switched on!
>
Nothing cures that - especially when it's being used right outside the shack door, as a form of heavy hint!

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

1636. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 14:16:21 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DC1497D.21AF6DDC@townsqr.com>
Source record: 132175

CAM wrote:

> Mark Keith wrote:
> > You don't say where the tuner would be mounted.. A tapped coil would
> > probably be less loss than using an autotuner at the base of the
> > antenna. The reason I say this is because the tapped coil would likely
> > be a larger and more efficient inductor than the likely smaller one in
> > an autotuner. But the autotuner would be much easier to change bands.
>
> Incidentally, High Sierra has a screwdriver vertical for fixed or
> portable use.

Now they're also advertising a twin-screwdriver dipole. 80-10 meters in twelve feet!

Dick

1637. Re: Homebrew Force 12 Sigma 5

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 14:36:54 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <aprf64$11sa@r02n01.cac.psu.edu>
Source record: 132176

Hi All:

I believe that it's clear from reviews and adds for the antenna that its a
center loaded (coil) link coupled,with bandswithching taps for changing
bands, vertical dipole.
The efficiency of the antenna is strongly effected by the Q of the loading
coils. The capacitive end loading from the "T" bars reduce the size of the
coil need to resonate the antenna there by lowering losses.
I modeled the 80m version, and it's down in gain (I can't remember how much
right now, I'm at work) from a full size vertical, (surprise surprise) but
much better at the low angles for dx than my low (40') dipole.
And with much reduced response to high angle signals it would reduce the
signal strength of local stations increasing the signal to interference
level. Coupled with not benefiting from radials it's an attractive antenna.
It still suffers from the ground loss in the far field that all vertical
over imperfect ground suffer though.

--
John Passaneau, W3JXP
Physics Dept. Electronics Shop
Penn State University
104 Davey Lab, University Park , Pa. 16802
814.863.4297, jxp16@psu.edu

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:d5a0su04iu1nkcbb008hr0pd71sf0884dm@4ax.com...
> On Wed, 30 Oct 2002 16:50:18 GMT, burgoyne@faux9bit.qc.ca (Stephan)
> wrote:
> snip
>> the Sigma 20 looks its best at 25° with an astounding -0.08dBi....
> drivepoint Z = 69.45 + J 192.2 ohms
> (if we flung it high, into outerspace, Z = 43 + J 182 ohms)
>
> Analysis reveals that the antenna structure is naturally resonant at a
> much lower frequency of 11.6MHz. So, as the SWR of the naked
> structure does not compare to the advertising literature claims, some
> mild speculation (in their ad's favor) would tend toward there being a
> passive component added to shift the frequency. This speculation is
> supported by their claim of a direct 50 Ohm feed.
>
> Again, using EZNEC, I added a -200 Ohm load near the source feed (a
> cap in series) and the resonance dropped dead on to 20M. Further, the
> SWR shows a BW of 13.4MHz..14.7MHz - and conforms to their ad:
> >The operating bandwidth is <1.5:1 across the whole 20 meter band.
>

> This being a short near ground antenna sparked a moment of reflection
> with a derivative design, an "optimal" one from the fractal kitchen:
> http://www.qsl.net/kb7qhc/antenna/fractal/n1ir/k2/index.htm
> which, when you scroll down to the simple alternative, you will find
> to be the Sigma style doing quite well (even if not optimal :-)
>
> 73's
> Richard Clark, KB7QHC
>

1638. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 14:44:05 UTC
From: SeeSignature@below.com
Message-ID: <3dc14098.222218987@news.ga.comcast.giganews.com>
Source record: 132177

Roy, is there a quickie test one could do with simple test equipment
like a grid dip meter or MFJ259 at the intended freq of operation to
verify that an unknown core is suitable there?

Jerry W4UK

On Thu, 31 Oct 2002 02:22:37 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Reg Edwards wrote:
>> . . .
>> (PS. Switcher power supply ferrites should NOT be used for HF wideband
>> transformers. . .
>
>Why is this? Low frequency ferrites (e.g. Fair-Rite 70 series or type
>43) are commonly used for HF wideband transformers, except for very high
>power levels where heating might be a problem. The two switching
>supplies I've designed for production have used ferrites which would be
>very suitable for HF wideband transformers. What ferrite characteristics
>are you thinking of that would make some unsuitable?
>
>Roy Lewallen, W7EL
>

1639. Free Space analysis useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 15:46:25 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DC15051.E3A6D8@netscape.net>
Source record: 132178

I have spent months using NEC Win Plus (NEC2) to come up with a 4 element Yagi to fit my needs. I mostly use free space to start out tweaking. Ok - Now I have that "perfect" pattern with deep back corner nulls - but when I actually build this antenna and mount it up on the roof have I wasted my time? Should I be using the "Real Ground" or some other (non free space) option to make sure I get the rear pattern I want when I actually build the antenna?

Thanks!

Scott.

1640. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 15:50:10 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210310750.38b3e061@posting.google.com>
Source record: 132179

dplatt@radagast.org (Dave Platt) wrote in message
news:<us1nkp7sittj8a@corp.supernews.com>...
> > You haven't discovered the trick of reading Art's
> >post yet. First you have to decode what he means
> >when he says 'tribander'. An 'Art' tribander isn't
> >a three band yagi like you might suspect. In this
> >case, it happens to be a three band rotatable dipole.
> >And he seems to think that removing the traps and
> >using the 'full length' of the dipole on all three
> >bands should be not only possible, but 'better'.
>
> Seems to me that in principle, it _might_ be possible to do a
> dualbander (10/20) somewhat along the lines of what Art is proposing.
> Rather than a simple set of traps, you'd install some sort of phasing
> section in the middle... maybe a bent-around transmission-line loop
> like the Maritime Super J-Pole uses. This would, in principle, allow
> the two halves of each element to act in a collinear fashion and give
> a bit of directional gain.
>
> I think you'd still need to install a set of traps (or a relay) inside
> the loop of each phasing section, to "short it out" for operation on
> 20 meters. Otherwise, you'd end up with a really funky 20...
> quarterwave radiator on the inside, a quarterwave non-radiating
> phasing loop, and then another quarterwave radiator on the outside
> which would be entirely out of phase with the inner quarterwave. I
> don't imagine that the combination would radiate terribly well ;-)
>
> I'm not sure how you could shoehorn a 15-meter antenna into this
> arrangment... use a standard 15M trap outside the phasing section, I
> guess. I can't see any way to fit a two-segment 15-meter collinear
> into a 20 and make it work.
>
> I'm not convinced that this approach is at all worth doing, though.
> Yes, it could give a few dBd of gain on 10 meters, compared to a
> standard triband trap dipole having the same element length. However,
> the added phasing sections would be quite a lot heavier than a
> standard trap and would add significantly to the antenna's wind
> cross-section. They'd add weight, hassle, and might require the use
> of thicker elements to hold up the weight (which would be halfway out
> the element, adding quite a bit of lever arm).
>
> I'd probably just go with a triband short-boom two-element trap Yagi,
> since that would give (I suspect) equal or better forward gain on 10
> (and quite a bit better on 15 and 20), and a useful front-to-back

> ratio (which a phased collinear dipole would lack), with only a very
> modest increase in turning radius compared to the original trap
> dipole.

David,
Very good. Ofcourse we first have to decide whether we have "our
house in order" If not we try to pursue a better more uniform way.
The latest antenna is the IR antenna which is a measurable advance
over others.
It reference to gain was what was actualy measured and I like that
real term.
It then was able to talk of gain that referred to the WHOLE band and
I like that. Can we improve on this good method of reporting the
measure of the product, and this is what I focussed on.
So the multi bander offered was a single element that could reflect a
dipole
in many ways until it reached the 1/2 wave point, after which the rest
is dormant and any extension beyond that just adds to turning radius.
Ofcourse all tribander forms do this because of traps. So tho the
tribander has the same gain as a dipole the penalty is that it is
twice as long (using 10
metres as a standard) so I thought that they don't have the same order
of merit.
If a new design came along where say the IR element continued to
increase gain
by continueing the the element travel to equal its turning radius I
would consider that as an increase in merit but then the cry would
really come along
by detractors that Hey, it is twice as long ! Where as I say if he has
to have that turning radius then more power to him for using it all to
radiate.
In my case when I did this by using the whole turning radius to form
in phase
radiation plus removal of the less efficient ends ala of the radiation
pattern ala capacity hat, there was uproar when gain was mentioned
So now we have a problem in some ways, when an element uses all
its
physical length to radiate in an additive way similar to the Zepp
aproach
only constricted to a single half wave or less, or more, produces
collinear
radiation form ? If such a design is not accepted as giving more gain
than a dipole (see archives) How should we give it some order of merit
when
theIR designers introduce the same with their designs ! The design is
now
established so how are we going to rate it if this august group
rejects the
norm.
regards

Art

Note.
DOCTOR, If I am wasting your time do what I do with TV. Look to see
what the program is,if disliked go somewhere else or turn the TV off !
Throwing a brick at the TV does not help.

1641. Need

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 16:10:52 UTC
From: Roger Peterson <kc8qr@neo.rr.com>
Message-ID: <gCcw9.18256$yY.1302085@twister.neo.rr.com>
Source record: 132180

I need hustler antenna parts and pieces. I need the loads for all bands. I need the masts. I have a mount. I will also consider the proam whips or something smilar. I thank you

Pete Kc8qr or kc8qr@neo.rr.com

1642. Re: Free Space analysis useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 16:18:46 UTC
From: fractenna@aol.com
Message-ID: <20021031111846.28814.00002742@mb-mv.aol.com>
Source record: 132181

>
>I have spent months using NEC Win Plus (NEC2) to come up with a 4
>element Yagi to fit my needs. I mostly use free space to start out
>tweaking. Ok - Now I have that "perfect" pattern with deep back corner
>nulls - but when I actually build this antenna and mount it up on the
>roof have I wasted my time? Should I be using the "Real Ground" or some
>other (non free space) option to make sure I get the rear pattern I want
>when I actually build the antenna?
>
>Thanks!
>
>Scott.
>

If the antenna is mounted 3/4 or more waves above ground, the general azimuthal pattern will be correct. Of course, you now have an antenna with a launch angle which is not at the horizon (such as you get with free space), and certainly has no response at negative elevation angles.

I suspect that if you tweak the sim with real ground, you will find you already did pretty well from free space, and its probably not worth re-doing. At worst, your SWR will be off slightly (doubt moderately) and the F/B will not prove quite as deep.

73,
Chip N1IR

1643. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 16:28:39 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC15A37.7F548DEB@ieee.org>
Source record: 132182

Reg Edwards wrote:
>
> "CAM" wrote -
> > I use a 33 ft rotatable dipole for 20m, 17m, 15m, 12m, & 10m.
> > It is an even better antenna on 10m than it is on 20m.
> ============================
>
> Not after midnight it isn't. ;o)

Does it lose it's quasi-EDZ characteristics after midnight?
--
cheers, CAM http://www.qsl.net/w5dxp

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1644. Re: help needed in microstrip antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 16:32:08 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0210310832.56c33773@posting.google.com>
Source record: 132183

I am from University of Central Florida, Florida, USA. Doing masters
in microwave area.

> >Hi there,
> > I am doing my thesis on microstrip antennas for mobile
> >communication. I need some fresh ideas regarding this. I am struck
> >because i could not find any new topic in this. Kindly help.
> >
> >Thanks in advance.
> >
> >
>
> Where are you from ? Institution? Location?
>
> Best,
> Chip N1IR

1645. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 16:33:20 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC15B50.3A39BCDB@ieee.org>
Source record: 132184

Dave Platt wrote:
> Seems to me that in principle, it _might_ be possible to do a
> dualbander (10/20) somewhat along the lines of what Art is proposing.

Here's an easier way. Use a resonant 20m dipole and feed it with
an integral number of 1/2 wavelengths of ladder-line. No tuner
needed. Add a quarter-wave transformer (7.8') of ladder-line when
you want to use the 20m dipole on 10m. No tuner needed.
--
cheers, CAM http://www.qsl.net/w5dxp

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1646. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 16:35:04 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC15BB8.3977D7A6@ieee.org>
Source record: 132185

Dick Carroll wrote:
>
> CAM wrote:
> > Incidentally, High Sierra has a screwdriver vertical for fixed or
> > portable use.
>
> Now they're also advertising a twin-screwdriver dipole. 80-10 meters in
> twelve feet!

Heck, you could even off-center feed that beast. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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1647. Re: Homebrew Force 12 Sigma 5

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 16:42:43 UTC
From: burgoyne@faux9bit.qc.ca
Message-ID: <3dc14a07.3460649@news.9bit.qc.ca>
Source record: 132186

Richard Clark <kb7qhc@attbi.com> wrote:

>
>You can do this yourself with the free version of EZNEC (become one of
>that army of experts that populate the wide world web).
>
I prefer to ask first, before trying to reinvent the wheel !

>the Sigma 20 looks its best at 25° with an astounding -0.08dBi....

>
a full size dipole is 2.35 dBi isn't it ? hmmm
What's the "gain" when it is "on the ground" mounted 2 ft up ?

I can see that design turn into a nice antenna construction project .
And it is portable ... and seem easy to set up .. I see the usefulness
while camping or during the IOTA contest .. as I had to use trees this
summer to get a dipole up .

How about a wire version ? If I get one of those German pull up
fiberglass mast (32 ft?), then stretch 2 top wires 12 Ga of 7 ft
attached to guy wires on each side 50 ft away, 2 bottom wires also ?
Would the dimensions of 16 ft in the middle stay the same, and using
the cap of 200 pF in series also ?

Stephan, VE2OWL
---
to reply direct, please use: Vee ee too oh double-you ell at arrl.org

1648. Re: Homebrew Force 12 Sigma 5

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 16:51:21 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <TV3BPTmvpw1eUfqCNcOgkDgaDVje@4ax.com>
Source record: 132187

"John Passaneau" <jxp16@psu.edu> wrote:

>Hi All:
>
>I believe that it's clear from reviews and adds for the antenna that its a
>center loaded (coil) link coupled,with bandswithching taps for changing
>bands, vertical dipole.

According to the QST review, it has five loading coils at the dipole feedpoint,
and energized relays activate different sets of coils on each side of the feed
point, controlled by a bandswitch in the shack.

Sounds a little complicated -- there may be some way to simplify in a homebrew
version.

Bob
k5qwg

>The efficiency of the antenna is strongly effected by the Q of the loading
>coils. The capacitive end loading from the "T" bars reduce the size of the
>coil need to resonate the antenna there by lowering losses.
>I modeled the 80m version, and it's down in gain (I can't remember how much
>right now, I'm at work) from a full size vertical, (surprise surprise) but
>much better at the low angles for dx than my low (40') dipole.
>And with much reduced response to high angle signals it would reduce the
>signal strength of local stations increasing the signal to interference
>level. Coupled with not benefiting from radials it's an attractive antenna.
>It still suffers from the ground loss in the far field that all vertical
>over imperfect ground suffer though.

1649. Re: Mini Quad Web Page Update

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 17:06:53 UTC
From: Kanberi <pti@capnet.com>
Message-ID: <3DC1632D.BB8DBB84@capnet.com>
Source record: 132188

How do you think your antenna would perform compared
to a HexBeam??????

G&R wrote:

> We have done a major update on our web site www.degendesigns.com.
>
> We have added photos and reviews of our products.
>
> Looking forward to your visits and comments.
>
> 73,
>
> Guenther Schweigl VE3CVS
> info@degendesigns.com

1650. Stacking Halos?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 17:45:55 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DC15E14.EC5EA74@uwe.ac.uk>
Source record: 132190

Anyone help with stacking halos (folded dipoles bent into a near circle)?
Phasing? spacing? What I'd like to build is a horizontally polarised
omnidirectional antenna with moderate gain. For 2 metres 144 - 146
(later possibly for 6 m).

Intuitively I feel that stacking halos should squeeze
the donut down toward the horizon but I've not found
any examples on the web so I have this sinking feeling
that there must be something obvious I'm missing.

Any pointers would be much appreciated.

vy 73 and TIA

Andy, M1EBV/M3ABC

1651. Re: building medium / shortwave loops ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 17:51:15 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0210310951.21b6e786@posting.google.com>
Source record: 132189

rsnijders@hetnet.nl (ron) wrote in message
news:<ee0c80f6.0210301304.26972466@posting.google.com>...
> Hello,
>
> I am planning to make a Loop antenne to use on mediumwave and perhaps
> on shortwave, now i would like to now the following:
>
> 1) is there a formula to calculate the wire lenght ?
>
> 2) is there a formula to calculate the frame size ?
>
>
> Perhaps its seem stuppid, but i find a few pictures of this loops, but
> there are no calculation on FREQUENCY versus WIRELENGHT
>
>
> So if you can give me the answer or someone nows that can help me, i
> will be thankfull.

Reg has a program the works pretty well for that. It's at
http://www.btinternet.com/~g4fgq.regp/page3.html
The program for small receive loops is rjeloop3
You can build small loops for SW use, but there may be a limit to how
high a frequency, due to the stray capacitance in the windings. I
built a few of them just testing them out. I settled on a round 16
inch loop with about 12 turns as my "everyday" MW loop. It worked out
just about right for my uses. Covers from 500-2000 kc with the cap I
am using. Works well for MW, and also can use it for 160m at the upper
end of it's range.
MK

1652. Re: help needed in microstrip antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 18:11:15 UTC
From: fractenna@aol.com
Message-ID: <20021031131115.11033.00000687@mb-fe.aol.com>
Source record: 132191

You might get a good sense of some new work by others in the IEEE APS-URSI Proceedings. I am sure there are folks at UCF that have these.

Fujimoto and James' book is also quite good but a bit outdated at this point.

73,
Chip N1IR

1653. Re: when does small size really reduce radiation?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 18:11:34 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DC16418.43F12CE8@uwe.ac.uk>
Source record: 132192

Henrik wrote:
>
> Hi,
> having invested in an automatic tuner (SG-239), I am wondering about the
> needs of size to secure radiation efficiency....
>
> It made a big impression on me to read an earlier mail here from "Reg", to
> high pressure clean your brain of the magic of the G5RV....and just erect
> the biggest dipole as high as possible.....as I really feel we have a
> statement of general truth here!
>
> I would appreciate comments to the above statement, when I use the tuner
> (coax fed) at the aerial....what it brings to make a loop (in the same
> space) compared to the dipole.....with the view to secure highest possible
> radiation of RF, and quietness of reception.
>
> When does size really become critical...is it the 1/3 of a wavelength for
> both elements/loop circumference...before radiation is significantly
> compromised, when the match is secured at the antenna with the auto tuner?
>
> Thanks in advance for your competent comments.
> Henrik.
>
> (I filed a similar question at the tuner makers forum, but it is not that
> populated it seems, so I hope it is OK to ask here too (www.sgcworld.com))

Dear Henrik,

I use an SGC 230 which feeds a 102' wire, centre fed with 28' or so of home brewed 600 ohm ladder. No relation to the G5RV ;-). It tunes fine on all bands including 160 m. I recon that, taking the Q of the pretty crappy inductors in the 230 as 100 (I'm being a little generous there I think) the efficiency on top band is roughly 30 - 35%. I'm restricted by my licence to 10 W at the aerial feed point so I limit myself to 25 W into the SGC. I get good reports. I've had 57 and 58 reports from western Russia and Lithuania and usually get 59 from the U.K. under reasonable condx.

I have choke baluns made with 1' x 10 turn coils in both the feed to the SGC and the control cable. The antenna is roughly 0.2 lambda overall on top band.

Any shorter and the efficiency really starts to plummet as the reactance climbs and the radiation resistance falls off. There really isn't too much room inside the SGC to get higher quality coils in. Be aware that the rest of the power is being dissipated in the coils, so overheating may be a problem if you approach the rated power of the unit. Most of us are forced to use fairly

short aerials on low bands and radiated power is often quite low.

vy 73

Andy, M3ABC

1654. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 18:24:57 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DC1673C.7569A1B5@uwe.ac.uk>
Source record: 132195

Reg Edwards wrote:
>
> > My understanding is that by
> > using the coax with grounded
> > shielding to feed to the receiver,
> > I can reduce local noise pickup.
> ==========
> There's only one thing I'm sure of - it won't make it worse!
>
> If depends on noise characteristics and what sort of parasitic antennas it
> radiates from. It's all near-field stuff. In the domestic situation with
> wires galore, unless the receiving antenna runs alongside a power or
> lighting cable for an appreciable distance, screening the antenna wire might
> not make much difference. If it's noise spikes as from on/off switches and
> thermostats in the neighborhood much of the rubbish will be picked up by the
> unprotected parts of the antenna anyway.
>
> If the noise sources are very local fluorescent lights, TV receivers,
> computers, switcher power supply harmonics, etc., and the coax is long
> enough to remove the whole of the antenna right into the back yard, then
> there should be an improvement. I have often been in that sort of situation
> myself but I confess I have never done any A-B tests. And I have never kept
> any antenna long enough to make an indoors permanent installation of it.
>
> Perhaps grounding BOTH ends of the coax would be beneficial. It would
> certainly change the circuit configuration and the sort of coupling which
> takes place.
>
> The usual connection to 'ground' from the receiver itself is an integral
> part of the receiving system. It is surrounded by noise radiators and ends
> by being connected to a noise generator - the incoming domestic power
> supply. To ask a rhetorical question - should the receiver power lead be
> replaced with twin-ax ?
>
> I have found a choke wound on a ferrite rod inserted in the 50Hz mains lead
> to be beneficial. At least it makes one feel more relaxed until the XYL's
> vaccuum cleaner is switched on!
>
> (PS. Switcher power supply ferrites should NOT be used for HF wideband
> transformers. And un-un's do not smooth out the peaks and troughs in antenna
> impedances. The peak/trough ratio remains unchanged. But the MEAN mismatch
> loss between a 600-ohm antenna wire and a 50-ohm receiver, over the MF and
> HF bands, is reduced by a few dB.)
> ---

> Reg, G4FGQ

Isn't a length of coax in an unmatched situation like that just the same as a capacitor in parallel with the aerial?

vy 73

Andy, M3ABC

1655. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 18:25:33 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210311025.682e@posting.google.com>
Source record: 132193

dplatt@radagast.org (Dave Platt) wrote in message
news:<us1nkp7sittj8a@corp.supernews.com>...
> > You haven't discovered the trick of reading Art's
> >post yet. First you have to decode what he means
> >when he says 'tribander'. An 'Art' tribander isn't
> >a three band yagi like you might suspect. In this
> >case, it happens to be a three band rotatable dipole.
> >And he seems to think that removing the traps and
> >using the 'full length' of the dipole on all three
> >bands should be not only possible, but 'better'.
>
> Seems to me that in principle, it _might_ be possible to do a
> dualbander (10/20) somewhat along the lines of what Art is proposing.
> Rather than a simple set of traps, you'd install some sort of phasing

snip

> Yes, it could give a few dBd of gain on 10 meters, compared to a
> standard triband trap dipole having the same element length.

David, that statement is yet to be fully acknowledged with the
"names "in this group..

snip

> and a useful front-to-back
> ratio (which a phased collinear dipole would lack),

I am not sure you are totally correct saying that.
If I put two of my elements as an array form it would be
extremely similar to the "Lazy H '. Can't such an array
be made directive with a good front to back i.e. all
radiation being additive ?

Best regards David

Art

1656. Re: Homebrew Force 12 Sigma 5

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 18:29:50 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <bks2susd0qodr0tvepaun84i9r6db3nihr@4ax.com>
Source record: 132194

On Thu, 31 Oct 2002 16:42:43 GMT, burgoyne@faux9bit.qc.ca (Stephan)
wrote:

>Richard Clark <kb7qhc@attbi.com> wrote:
>
>
>>
>>You can do this yourself with the free version of EZNEC (become one of
>>that army of experts that populate the wide world web).
>>
>I prefer to ask first, before trying to reinvent the wheel !
>
>
>>the Sigma 20 looks its best at 25ï¿½ with an astounding -0.08dBi....
>
>>
>a full size dipole is 2.35 dBi isn't it ? hmmm
>What's the "gain" when it is "on the ground" mounted 2 ft up ?

You got it the first time.

>
>I can see that design turn into a nice antenna construction project .
>And it is portable ... and seem easy to set up .. I see the usefulness
>while camping or during the IOTA contest .. as I had to use trees this
>summer to get a dipole up .
>
>How about a wire version ? If I get one of those German pull up
>fiberglass mast (32 ft?), then stretch 2 top wires 12 Ga of 7 ft
>attached to guy wires on each side 50 ft away, 2 bottom wires also ?
>Would the dimensions of 16 ft in the middle stay the same, and using
>the cap of 200 pF in series also ?
>
>Stephan, VE2OWL

Hi Stephan,

Wire models would work just as well, whatever support system you
provide. Given the original employed 3/4" components and you describe
interest using 12ga wire - there will be some difference. Don't stray
from the geometry. Aside from that, everything should be the same
(ï¿½3dB).

That was NOT a 200pf cap I described:
>>Again, using EZNEC, I added a -200 Ohm load near the source feed
C = 1 / (2 * pi * f * Xc)

You may also wish to simply substitute a popular air variable cap and adjust to discover the actual, in-place value. If this is to be a wire antenna, and temporary at that, you may just wish to keep it a variable cap.

73's
Richard Clark, KB7QHC

1657. Re: Stacking Halos?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 18:34:40 UTC
From: Martin Hibbs <mhibbs@ipeg.com>
Message-ID: <3DC177BD.A42EEF71@ipeg.com>
Source record: 132196

Andy Cowley wrote:

> Anyone help with stacking halos (folded dipoles bent into a near circle)?
> Phasing? spacing? What I'd like to build is a horizontally polarised
> omnidirectional antenna with moderate gain. For 2 metres 144 - 146
> (later possibly for 6 m).

Here you are: http://www.kb6kq.com/index.html

Marty...
N7MX

1658. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 18:52:09 UTC
From: Sylvan Butler <Znospam+noZs_0210@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrnas2uup.bis.Znospam+noZs_0210@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 132197

On Wed, 30 Oct 2002 17:48:01 -0600, CAM <Cecil.A.Moore@ieee.org> wrote:
> Texas has a corner on the helium market. :-) They wouldn't give any
> to the Nazis and that's why the Hindenburg blew up.

The Hindenburg did not "blow up", it burned. It would have burned
had it been helium, because it was the envelope burning before the
gas caught fire.

sdb

--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. >>>> change ^ to @ <<<< |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Stop Senator Fritz Hollings-S2048, Palladium, and TCPA, NOW!
http://www.freedom-to-tinker.com/archives/cat_fritzs_hit_list.html
Or else like Fritz, fight piracy -- regulate potty chairs!

1659. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 20:00:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us32v75a8odka5@corp.supernews.com>
Source record: 132198

Yes. Wind a couple of turns on the core (each pass through the hole of a toroid equals one turn) and measure the impedance over the range of frequencies of interest. (The impedance is proportional to the square of the number of turns.) What you strive for in a wideband transformer is to have the winding impedance be much higher (a factor of 5 - 10 is a generally good working number) than the impedance connected to the winding, so in general, the higher the impedance you measure, the better.

Let's see, if you had a winding to be connected to a 50 ohm impedance, you'd want about 500 ohms. To get that with 5-10 turns would require an impedance per turn squared of 5 - 20 ohms, or 20 - 80 ohms for two turns. Low frequency ferrites provide a relatively high impedance over a very wide frequency range. (See the Fair-Rite web site for graphs.) The impedance you get with low frequency ferrites is essentially resistive over most of the HF range, and it doesn't vary a great deal with frequency, which is ideal for wideband transformer applications. By contrast, high frequency ferrites provide an impedance that's primarily reactive, which is ok, but you don't get as much impedance. By the time you wind enough turns to get the high impedance you need, you might end up above self-resonance where the impedance is lower.

The only exception is if you're dealing with a lot of power. In that case, the low frequency cores can heat due to simple resistive loss (which is often mistaken for saturation), even if the loss is completely insignificant in terms of dB. Then, you're stuck with using a higher frequency ferrite. Type 43 is often a good compromise between impedance and loss -- its resistance equals its reactance in the middle of the HF band.

Low frequency ferrites are obviously not suitable for use as inductors at HF. For most amateur applications, powdered iron is better than even high frequency ferrites for HF inductor applications.

Roy Lewallen, W7EL

SeeSignature@below.com wrote:
> Roy, is there a quickie test one could do with simple test equipment
> like a grid dip meter or MFJ259 at the intended freq of operation to
> verify that an unknown core is suitable there?
>
> Jerry W4UK

1660. Re: Free Space analysis useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 20:09:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us33flihfb0q88@corp.supernews.com>
Source record: 132199

After you model the antenna in free space and tweak it, then model it over ground. You'll find that the strength of the rear lobe depends on the elevation angle. If there's one particular angle or range of angles where you need especially high front/back, you might be able to tweak a little more to get the smallest radiation from the rear at that angle.

But nulls are a lot tougher to accomplish in practice than gain or forward pattern. The reason is that nulls are brought about by subtracting a number of large fields to get a result near zero. Even a slight percentage disturbance in any of the large fields has a big effect on the nulls, while its effect on gain or forward pattern will be minimal. So nulls also suffer from environmental factors such as nearby conductors, slight asymettry in the antenna, and so forth. In practice, you might not see quite as much front/back as the program predicts, no matter how much you tweak the model. So it's worthwhile to get a good front/back ratio on the model, but probably not worthwhile to spend hours squeezing the last few dB out of it.

Roy Lewallen, W7EL

Scott wrote:
> I have spent months using NEC Win Plus (NEC2) to come up with a 4
> element Yagi to fit my needs. I mostly use free space to start out
> tweaking. Ok - Now I have that "perfect" pattern with deep back corner
> nulls - but when I actually build this antenna and mount it up on the
> roof have I wasted my time? Should I be using the "Real Ground" or some
> other (non free space) option to make sure I get the rear pattern I want
> when I actually build the antenna?
>
> Thanks!
>
> Scott.
>
>
>

1661. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 20:12:44 UTC
From: dplatt@radagast.org
Message-ID: <us33lsechufa26@corp.supernews.com>
Source record: 132200

>> Seems to me that in principle, it _might_ be possible to do a
>> dualbander (10/20) somewhat along the lines of what Art is proposing.
>
>Here's an easier way. Use a resonant 20m dipole and feed it with
>an integral number of 1/2 wavelengths of ladder-line. No tuner
>needed. Add a quarter-wave transformer (7.8') of ladder-line when
>you want to use the 20m dipole on 10m. No tuner needed.

This gives you the ease-of-driving-it, certainly, and eliminates the
trap losses.

I don't see that it gives you any directional gain (compared to a
standard dipole), which seems to be part of what Art was trying to
accomplish.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1662. Re: Free Space analysis useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 20:30:48 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210311230.7514df24@posting.google.com>
Source record: 132201

Scott <scott2rp789@netscape.net> wrote in message news:<3DC15051.E3A6D8@netscape.net>...
> I have spent months using NEC Win Plus (NEC2) to come up with a 4
> element Yagi to fit my needs. I mostly use free space to start out
> tweaking. Ok - Now I have that "perfect" pattern with deep back corner
> nulls - but when I actually build this antenna and mount it up on the
> roof have I wasted my time? Should I be using the "Real Ground" or some
> other (non free space) option to make sure I get the rear pattern I want
> when I actually build the antenna?
>
> Thanks!
>
> Scott.

Scott, I always use real ground and height because it is realistic and
you can measure its parameters. If you use real space you cannot
measure it when you have installed you antenna and,more important of
all, the free space
form of design cannot duplicate what one sees in the real world,
especialy the true pattern. This is not to say that measurements in
outer space do not have any use especially for true mathmaticians or
other scientific people including those 'aliens', but the average ham
wants to use his antenna on this earth, talking to people on this
earth and to get maximumum efficiency from the area he has chosen for
himself and to measure it in the event of conflicts.
Art

1663. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 20:34:18 UTC
From: dplatt@radagast.org
Message-ID: <us34ua74r6tf38@corp.supernews.com>
Source record: 132202

In article <85ed38d.0210311025.682e@posting.google.com>,
Art Unwin KB9MZ <aunwin@insightbb.com> wrote:

>David, that statement is yet to be fully acknowledged with the
>"names "in this group..

So, model it out in a NEC variant and post the model, perhaps? Give
us something concrete to look at and analyze?

>> and a useful front-to-back
>> ratio (which a phased collinear dipole would lack),
>
>I am not sure you are totally correct saying that.
>If I put two of my elements as an array form it would be
>extremely similar to the "Lazy H '. Can't such an array
>be made directive with a good front to back i.e. all
>radiation being additive ?

If you put the second (phased) collinear off to one side, you'll get more
directional gain in both forwards and backwards direction... but the
"turning radius" for the array will be huge (maybe 4x the turning
radius of a single collinear). And, because the arrangement is
symmetric, you'll have a F/B ratio of 0 dB.

If you put one of the collinears 1 wavelength "in front" of the other,
and size/tune/phase them identically, you'll end up with a narrower
beamwidth... but, again, you'll have a huge turning radius and no
forward-to-backward selectivity.

Best approach would be to put one a quarter-wavelength ahead of the
other and add a quarter-wavelength phasing line... this would give you
roughly 3 dB (I think) of additional forward gain, and a big deep null
off of the back. Not too shabby, with an increase in turning radius
of only about 6%.

The forward pattern would, I think, not be as "clean" as you'd get
from a Yagi having a similar boom length. You'll end up with a
complex series of lobes and nulls, due to cancellations and
reinforcements between the different quarter-wave radiating sections.
You'll get a similar set of effects off of the back end. Interesting
things might happen to the feedpoint impedance.

And, I'm far from sure how this sort of array would behave if you try
to use it on 15 or 20 meters. If you'd implemented the elements as I
suggested (phasing sections, plus a trap to short them out) you'd end
up with two identical halfwave dipole radiators, separated by somewhat
less than 1/2 wavelength... so it'd provide some modest gain and a few

dB of front-to-back.

The real question, once again, will be whether this sort of array provides more useful gain (and a more useful pattern) on 20 meters than a conventional two-element Yagi with an ordinary half-wave resonant radiator and a single reflector or director. And, how will it compare with a conventional multiband Yagi (e.g. one trapped radiator, and either two reflectors or a single trapped reflector)?

It'd be great if you'd propose a design in sufficient detail (and with unambiguous, industry-standard use of technical terminology) to allow it to be modeled.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

1664. Re: Free Space analysis useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 20:37:15 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0210311237.4d00a464@posting.google.com>
Source record: 132203

Scott <scott2rp789@netscape.net> wrote in message news:<3DC15051.E3A6D8@netscape.net>...
> I have spent months using NEC Win Plus (NEC2) to come up with a 4
> element Yagi to fit my needs. I mostly use free space to start out
> tweaking. Ok - Now I have that "perfect" pattern with deep back corner
> nulls - but when I actually build this antenna and mount it up on the
> roof have I wasted my time? Should I be using the "Real Ground" or some
> other (non free space) option to make sure I get the rear pattern I want
> when I actually build the antenna?
>
> Thanks!
>
> Scott.

Since you have a design in free space that you like, why not try it
over 'real ground' and see what it looks like?

You can also predict what the optimum height will be.

By the way, what band are you talking about?

Jim
N8EE

1665. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 20:43:33 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <df43sucprbt6opajpdqm246a70of0ohejc@4ax.com>
Source record: 132204

On Thu, 31 Oct 2002 20:12:44 -0000, dplatt@radagast.org (Dave Platt) wrote:

>>> Seems to me that in principle, it _might_ be possible to do a
>>> dualbander (10/20) somewhat along the lines of what Art is proposing.
>>
>>Here's an easier way. Use a resonant 20m dipole and feed it with
>>an integral number of 1/2 wavelengths of ladder-line. No tuner
>>needed. Add a quarter-wave transformer (7.8') of ladder-line when
>>you want to use the 20m dipole on 10m. No tuner needed.
>
>This gives you the ease-of-driving-it, certainly, and eliminates the
>trap losses.
>
>I don't see that it gives you any directional gain (compared to a
>standard dipole), which seems to be part of what Art was trying to
>accomplish.

Hi Dave,

A half wave 20M length 10M radiator has more gain that a half wave 10M length 10M radiator (about 2.4dB). There is certainly no mystery about that (and no recent discovery either).

Cecil provides for a way to match to that mismatch (a 20M size dipole with a 10M drive, or a 17M drive, or a 15M drive, or a 12M drive) that is simple and as lossless as you will find. I am sure there are variations that allow us to build loss back into the picture - Art simply hasn't gotten around to it yet. When he does, it will be to prove his is more "efficient" or easier than Cecil. The problem is that Cecil's idea suffers from lack of Patent Gain (which being good is not as good as the additional 3dB found in Patent Pending Gain so often non-observed in fractals).

Cecil and the rest of us are yet to catch on to the fact that Patented antennas are 3dB superior to wire antennas - until after 17 years when they slowly lose that gain and become normal. ;-)
Hence, Patent Pending antennas are the most sought after because their, uh, virility is artificially enhanced immensely by lawyers and advertising agents.

73's
Richard Clark, KB7QHC

1666. Re: Free Space analysis useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 20:54:50 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DC1989A.EBE32DF6@netscape.net>
Source record: 132205

Your words about those nulls being difficult to achieve is disappointing! A 30dB F/B is great, but it became obvious if I could make these deep ("corner") nulls occur in real life, a little adjustment of the rotor off into the -50dB null, no F/B ratio could match! The environmental factors you mention are definitely going to exist for me - There are some 220V lines that run the length of the attic that will (probably) influence the pattern. I was just hoping that once I built the antenna, I could find that pattern I saw on my design frequency maybe somewhere off to either side, but close!

You mention that it is worthwhile to squeeze a higher F/B ratio out - so does this still apply some what to these "back corner" nulls i've tried to maximize? They are -70dB in free space and -50dB when I model over ground. Jeezzzz, I'd like to keep them!

Thanks!

Scott.

Roy Lewallen wrote:

> After you model the antenna in free space and tweak it, then model it
> over ground. You'll find that the strength of the rear lobe depends on
> the elevation angle. If there's one particular angle or range of angles
> where you need especially high front/back, you might be able to tweak a
> little more to get the smallest radiation from the rear at that angle.
>
> But nulls are a lot tougher to accomplish in practice than gain or
> forward pattern. The reason is that nulls are brought about by
> subtracting a number of large fields to get a result near zero. Even a
> slight percentage disturbance in any of the large fields has a big
> effect on the nulls, while its effect on gain or forward pattern will be
> minimal. So nulls also suffer from environmental factors such as nearby
> conductors, slight asymettry in the antenna, and so forth. In practice,
> you might not see quite as much front/back as the program predicts, no
> matter how much you tweak the model. So it's worthwhile to get a good
> front/back ratio on the model, but probably not worthwhile to spend
> hours squeezing the last few dB out of it.
>
> Roy Lewallen, W7EL
>
> Scott wrote:
> > I have spent months using NEC Win Plus (NEC2) to come up with a 4
> > element Yagi to fit my needs. I mostly use free space to start out
> > tweaking. Ok - Now I have that "perfect" pattern with deep back corner
> > nulls - but when I actually build this antenna and mount it up on the
> > roof have I wasted my time? Should I be using the "Real Ground" or some

> > other (non free space) option to make sure I get the rear pattern I want
> > when I actually build the antenna?
> >
> > Thanks!
> >
> > Scott.
> >
> >
> >

1667. Re: Mini Quad Web Page Update

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 21:24:05 UTC
From: G&R <"stop the spam"@limbo.hell>
Message-ID: <i8hw9.7580$et4.1144110@news20.bellglobal.com>
Source record: 132206

Since I personally have not tried a Hex Beam, I can only go by what is published on Hex Beams site.

Based on what I see our performance should be similar, slightly better in some areas, slightly worse in others. Though, our antenna definitely has the characteristics of a quad in that it is less noisey than a typical beam. Our antenna is a true mini quad and not a Quagi as some other mini quads are.

In short, our antenna performs almost like a full sized quad except in a smaller heavy duty package.

For the applications that I use I would purchase a BBQ. But then again I am a little bias :-).

Check out the comments written about the BBQ10 http://www.degendesigns.com/bbq10_write_up.htm used during Field Day 2002

73,

Guenther Schweigl VE3CVS
info@degendesigns.com

"Kanberi" <pti@capnet.com> wrote in message news:3DC1632D.BB8DBB84@capnet.com...
> How do you think your antenna would perform compared
> to a HexBeam??????
>
>
>
>
> G&R wrote:
>
> > We have done a major update on our web site www.degendesigns.com.
> >
> > We have added photos and reviews of our products.
> >
> > Looking forward to your visits and comments.
> >
> > 73,
> >
> > Guenther Schweigl VE3CVS
> > info@degendesigns.com
>

1668. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 21:39:36 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aps7unkff1@helle.btinternet.com>
Source record: 132207

"Andy Cowley" wrote -
> Isn't a length of coax in an unmatched situation like that just the same
as
> a capacitor in parallel with the aerial?
=======================

No. It's much the same as a capacitor in shunt with the receiver which is only 50 ohms so it doesn't have much effect.

As I've said before somewhere, the impedance looking into any length of 50-ohm coax terminated with a 50-ohm receiver is exactly the same as looking into a 50-ohm receiver. So the 600-ohm down to 50-ohm mismatch loss is unchanged by the length of coax. That is the direction of signal flow. Get the idea ?

(Incidentally, in a transceiving situation, the only place in the system where (ideally) a conjugate match is intended to exist is at the tuner-receiver junction. Anybody wanna argue ? ;o))

Reg, G4FGQ

1669. Re: Free Space analysis useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 21:40:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us38qpfpls7idd@corp.supernews.com>
Source record: 132208

I think it's unlikely that when you build your antenna you'll see 50 or 70 dB nulls where the program says they'll be. You might get lucky and actually get a 50 or 70 dB null at some elevation and azimuth angle or other, but it'll probably be different than the program predicts.

No, I don't think it's worthwhile to spend a much time trying to get a modeled 40 dB null to be 50 or 70. It's time to cut some tubing and see.

Roy Lewallen, W7EL

Scott wrote:
> Your words about those nulls being difficult to achieve is disappointing! A
> 30dB F/B is great, but it became obvious if I could make these deep ("corner")
> nulls occur in real life, a little adjustment of the rotor off into the -50dB
> null, no F/B ratio could match! The environmental factors you mention are
> definitely going to exist for me - There are some 220V lines that run the
> length of the attic that will (probably) influence the pattern. I was just
> hoping that once I built the antenna, I could find that pattern I saw on my
> design frequency maybe somewhere off to either side, but close!
>
> You mention that it is worthwhile to squeeze a higher F/B ratio out - so does
> this still apply some what to these "back corner" nulls i've tried to
> maximize? They are -70dB in free space and -50dB when I model over ground.
> Jeezzzz, I'd like to keep them!
>
> Thanks!
>
> Scott.

1670. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 22:25:52 UTC
From: dplatt@radagast.org
Message-ID: <us3bfg8tc2sh68@corp.supernews.com>
Source record: 132210

In article <df43sucprbt6opajpdqm246a70of0ohejc@4ax.com>,
Richard Clark <kb7qhc@attbi.com> wrote:

>Hi Dave,
>
>A half wave 20M length 10M radiator has more gain that a half wave 10M
>length 10M radiator (about 2.4dB). There is certainly no mystery
>about that (and no recent discovery either).

OK, gotcha - thanks. I had misread what you were proposing (not
enough time for the morning coffee to kick in, I guess).

>Cecil provides for a way to match to that mismatch (a 20M size dipole
>with a 10M drive, or a 17M drive, or a 15M drive, or a 12M drive) that
>is simple and as lossless as you will find.

Understood - and I do like the elegance of Cecil's approach.

I just wish I could find a really convenient way to switch the
additional balanced feedline sections in and out... my "shack" is a
corner of one bedroom, and there isn't really a convenient indoor
location for the necessary collection of feedline segments. I haven't
been able to figure out a good sort of remote-controlled relay to use
for this purpose, and using a bank of long-strike solenoids to throw
knife switches feels a bit rube-goldbergish.

> I am sure there are
>variations that allow us to build loss back into the picture - Art
>simply hasn't gotten around to it yet. When he does, it will be to
>prove his is more "efficient" or easier than Cecil. The problem is
>that Cecil's idea suffers from lack of Patent Gain (which being good
>is not as good as the additional 3dB found in Patent Pending Gain so
>often non-observed in fractals).
>
>Cecil and the rest of us are yet to catch on to the fact that Patented
>antennas are 3dB superior to wire antennas - until after 17 years when
>they slowly lose that gain and become normal. ;-)

Is that anything like the way that New Car Smell leaches out of the
seats over a few years, and makes the car less sexy?

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1671. Re: help shunting feeding tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 23:02:14 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3dc1bab0_2@news1.prserv.net>
Source record: 132211

Larry:
If you have coax and/or rotator cable running up the tower, that will be the radiator. If not, add a piece of RG-8 or something to give you a lower loss conductor than the tower. Bond the shield at top and bottom, and feed the cable instead of the tower.

--
Crazy George
Remove NO and SPAM from return address
<me@nowwhere.com> wrote in message news:3DC00162.9759602A@swbell.net...
>
> hi
>
> i've got a question about shunt feeding a us towers tx455
> crank up tower. the tower is a 3 section, telescoping tower.
> each section is hooked to the next section with 1/4 inch
> steel cable and secured with large galvanized bolts at each
> end. my question is, does the bolted steel cable from one
> section to the next, consistute a good electrical/rf connection?
> my initial thoughts say no, it is not a good connection, and
> trying to use the tower as a shunt feed 160m vertical will
> probably generate swr that varies as well as rfi problems
> as well. anyone got comments, thoughts they would like
> to share, either pro or con?
>
> larry
> kd5foy
>
>
>
>

1672. Re: Free Space analysis useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 23:28:40 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <l0jw9.3194$z5.2286026@newssvr28.news.prodigy.com>
Source record: 132209

It's also useful to check the feedpoint Z over real ground in your modelling
in case you have to change your matching device settings.
--
Larry N8LP

"JLB" <jim.bolinger@lintek.aeroflex.com> wrote in message
news:8d5ec8a2.0210311237.4d00a464@posting.google.com...
> Scott <scott2rp789@netscape.net> wrote in message
news:<3DC15051.E3A6D8@netscape.net>...
> > I have spent months using NEC Win Plus (NEC2) to come up with a 4
> > element Yagi to fit my needs. I mostly use free space to start out
> > tweaking. Ok - Now I have that "perfect" pattern with deep back corner
> > nulls - but when I actually build this antenna and mount it up on the
> > roof have I wasted my time? Should I be using the "Real Ground" or some
> > other (non free space) option to make sure I get the rear pattern I want
> > when I actually build the antenna?
> >
> > Thanks!
> >
> > Scott.
>
> Since you have a design in free space that you like, why not try it
> over 'real ground' and see what it looks like?
>
> You can also predict what the optimum height will be.
>
> By the way, what band are you talking about?
>
> Jim
> N8EE

1673. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 23:32:12 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0210311532.10745586@posting.google.com>
Source record: 132212

fractenna@aol.com (Fractenna) wrote in message
news:<20021029191636.02913.00000163@mb-dd.aol.com>...
> >Got down to hoofing along the the coax to the 40m tower
> >with a flashlight at 2am or whatever ugly hour it was . . turned out
> >that the station owner's big outdoor guard mutt decided to have a
> >snack on the cable. Output suds from the 4-1000A be damned.
> >
> >w3rv
> >
>
> I'm sure dog saliva is more destructive than dew seepage;-)

1" fangs beats saliva every time: QED.

>
> 73,
> Chip N1IR

w3rv

1674. Re: help needed in microstrip antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-10-31 23:59:27 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0210311559.2f6e4ae8@posting.google.com>
Source record: 132213

hi there,
can u be give some details of that book written by Fujimoto and james.

thanks in advance

1675. Re: Tapped Coil vs Tuner on Vertical?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 00:28:36 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210311628.4451c665@posting.google.com>
Source record: 132214

nm5k@wt.net (Mark Keith) wrote in message
news:<25eb70d7.0210301222.776d1435@posting.google.com>...
> tayl0rr@yahoo.com (Robert) wrote in message
news:<ff33c2c3.0210281059.4ecded93@posting.google.com>...
> > Which is preferable on a homebrew multiband vertical antenna. A
> > tapped coil at the base or just a fixed length vertical with an
> > antenna tuner? I'm thinking the tapped coil, with a tuner, but would
> > like a little explanation if possible?
>
> You don't say where the tuner would be mounted..

Sorry about that but first look at what others have said. One talked
of using ladderline but he neglected to say that finishes up as an
antenna system,
a term he often uses. We then had a variable unductance aproach using
two antennas together with what normally was used as a vertical.
Unfortunately the variable inductances is sittingt right at the point
where maximum radiation occurs which is the last place anyone should
think in deducting length.
As for what I had in mind was what I wrote up in a patent years ago
when I took a rest from my effidiency/length love.
In what I called capacitive coupling I found that one could feed an
unbroken
dipole or vertical by placing in close proximity to it a small dipole
broken at its centre but fed delta fashion. The two dipole lengths
creats a capacitance between them which allows the electrical path to
change naturally , for best matching, this being that the current
wants to flow where there is minimum
resistance.
It sounds complicated but I just used two strips of insulated
aluminium tape
and just pushed the feed and coax inside the vertical to hide its
appearance.
On those experiments I did not add capacity hats at the ends but these
could have been very advantageous. Actually i used a similar
capacitive coupling aproach (capacitive coupling) with all the
elements of a yagi, but that is another story
Regards
Art

1676. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 00:34:47 UTC
From: "Thomas C. Sefranek" <WA1RHP@ARRL.net>
Message-ID: <H_jw9.28$t4.8616@newsread2.prod.itd.earthlink.net>
Source record: 132215

Sylvan Butler <Znospam+noZs_0210@hpb13799Z.Zboi.hpZ.com.invalid> wrote in
message
news:slrnas2uup.bis.Znospam+noZs_0210@hpb13799Z.Zboi.hpZ.com.invalid...
> On Wed, 30 Oct 2002 17:48:01 -0600, CAM <Cecil.A.Moore@ieee.org> wrote:
> > Texas has a corner on the helium market. :-) They wouldn't give any
> > to the Nazis and that's why the Hindenburg blew up.
>
> The Hindenburg did not "blow up", it burned. It would have burned
> had it been helium, because it was the envelope burning before the
> gas caught fire.

Absolute NONSENSE!
Looking at the film record it is CLEAR that the flame front came from
within.
The file CLEARLY shows an explosion in the tail of the bird.
The envelope was the LAST to burn.
>
> sdb
>
> --
> | Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
> | Watch out for my e-mail address. Thank UCE. >>>> change ^ to @ <<<< |
> They that can give up essential liberty to obtain a little temporary
> safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
> Stop Senator Fritz Hollings-S2048, Palladium, and TCPA, NOW!
> http://www.freedom-to-tinker.com/archives/cat_fritzs_hit_list.html
> Or else like Fritz, fight piracy -- regulate potty chairs!
>

1677. Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 00:51:20 UTC
From: ardujenski@aol.com
Message-ID: <20021031195120.26452.00000430@mb-cq.aol.com>
Source record: 132216

Has anyone had the opportunity to use and evaluate the HEX BEAM and if so any comments on its performance. I see Lou McCoy sang its praises a while back http://www.hexbeam.com/

Alan KB7MBI

1678. Re: Rodents Eating Cables

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 01:04:42 UTC
From: fractenna@aol.com
Message-ID: <20021031200442.01187.00002031@mb-mk.aol.com>
Source record: 132217

>1" fangs beats saliva every time: QED.
>

LOL:-)

1679. Re: help needed in microstrip antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 01:07:04 UTC
From: fractenna@aol.com
Message-ID: <20021031200704.01187.00002032@mb-mk.aol.com>
Source record: 132218

>hi there,
> can u be give some details of that book written by Fujimoto and
>james.
>
>thanks in advance
>

Noooo.....that's YOUR job young scholar.

If you merely want the TITLE, its: 'Mobile Antenna Handbook'.

73,
Chip N1IR

1680. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 01:15:55 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <7Bkw9.8645$h_4.1262619@news20.bellglobal.com>
Source record: 132120

"ARDUJENSKI" asked on the evening of October 31, 2002:
> Has anyone had the opportunity to use
> and evaluate the HEX BEAM... ?
> http://www.hexbeam.com/

Funny question for a Halloween night.
...*hex* beam...

:-)

1681. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 01:22:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us3lrc82l8tl14@corp.supernews.com>
Source record: 132119

I took a quick look at how you'd go about making a dual band 20/10 meter antenna that would have more gain on 10 meters than a trap dipole. A typical collinear antenna is 1.5 wavelengths long -- a half wave element in the middle, with a phasing stub at each end, then a half wave of wire beyond each phasing stub -- or longer, with additional stubs and half wave sections. With the 1.5 wavelength arrangement, you can get around 3 dB gain over a half wave dipole. But for the hypothetical dual band antenna, you've only got one wavelength to work with on 10 meters. I fiddled a little with some stubs on a one wavelength antenna, but couldn't do as well as I did with no stubs at all. With no stubs, you've got a plain one wavelength dipole, with gain of about 1.8 dB over a half wave dipole. There's nothing wrong with this, except you've got a very high impedance (thousands of ohms) to match on 10 meters, while on 20 meters the impedance is pretty close to being a good match for coax. For most applications, less than 2 dB wouldn't be worth the hassle.

Art, you said or implied a few postings ago that you could get substantially more gain from a one wavelength dipole (by making the whole wire radiate) than from a half wavelength dipole. Let's take a look at what might be possible.

In "A Critical Study of the Characteristics of Broadcast Antennas as Affected by Antenna Current Distribution" (Proceedings of the I.R.E., January 1936), G.H. Brown investigates the effects of modifying the current distribution on vertical radiators of various heights. Among the current distributions he analyzes are a constant current along the wire. He found that a constant current didn't give any substantial improvement over a sinusoidal distribution (that is, a plain wire with no trickery at all). "It is seen that this antenna [with constant current] must be practically 190 degrees tall to simulate a 190-degree antenna with sinusoidal distribution. Thus this scheme does not appear to be very promising, for it does not seem reasonable to go to all the trouble involved in getting a constant current along the antenna when the same vertical pattern can be obtained by merely using a straight vertical wire antenna of the same height." Then, speaking of all the different current distributions he investigated, he says, "For heights of the order of a half wavelength, it is hard to find anything better than a straight vertical wire."

So Brown wasn't able to come up with much of an improvement over just a straight wire when dealing with half wavelength verticals.

Lincoln La Paz and Geoffrey A. Miller took it one step farther in "Optimum Current Distributions on Vertical Antennas" (Proceedings of the I.R.E., May, 1943), and actually calculated what they determined to be

the best possible theoretical current distributions on wires of various lengths, without regard to how you might be able to achieve them, and calculated the resulting gain. They claim that you can't do better than these optimal distributions no matter what other current distribution you come up with. For a half wavelength vertical, the optimum distribution produces a gain of about 1.6 dB over a plain half wavelength wire (with sinusoidal distribution). So if they're correct, the very best gain you can get from a full wavelength wire (or half wavelength ground mounted vertical), no matter how you fiddle the current distribution, is about 3.6 dB over a half wave dipole (or quarter wave ground mounted vertical). (They show the gain of a half wave vertical to be about 2.0 dB.)

This is a respectable amount of gain over a half wavelength dipole. But how do you get it? They show the current distribution necessary to get this gain as a relatively low current until you get within about an eighth wavelength of the end, then the current increases pretty dramatically. A phase shift occurs about 1/3 of the way up. From a drawing of the distribution, it looks like the current at the antenna tips has to be 5 - 10 times or more the current along 3/4 of the central section. I don't know how you'd achieve a current distribution like this, and wouldn't be surprised if it's not possible. So-called "controlled current distribution" (CCD) antennas, using capacitors inserted at various places along the wire, strive to achieve a constant current along the wire. But as Brown showed, this doesn't give you much gain over a plain wire.

So it looks like a practical limit to the amount of gain you can get by "activating" the outer half of a 20/10 meter trap dipole is around 2 dB, the gain of a plain one wavelength dipole. And to get that, you have to deal with some matching issues. The easiest way to do it is the way thousands of hams now do -- use open wire line and a tuner.

How much gain can *you* can get from a one wavelength wire compared to a half wavelength dipole? If it's substantially more than 2 dB, how much do you get and how do you do it?

Roy Lewallen, W7EL

1682. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 01:27:17 UTC
From: rhatley <rhatley@zero.net>
Message-ID: <j3m3susf4dm4ts34d6a5839baejvmg7qu6@4ax.com>
Source record: 132121

two sites you may want to look at..................
http://www.iol.ie/~bravo/ahexbeam.htm
http://home.sprintmail.com/%7Esentek/hexpage1.htm

On 01 Nov 2002 00:51:20 GMT, ardujenski@aol.com (ARDUJENSKI) wrote:

>Has anyone had the opportunity to use and evaluate the HEX BEAM and if so any
>comments on its performance. I see Lou McCoy sang its praises a while back
>http://www.hexbeam.com/
>
>Alan KB7MBI

1683. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 01:42:18 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DC1DBFA.80E9C3D4@cwis.net>
Source record: 132122

Richard,
Hey, I like that one!
'Doc

1684. Re: help shunting feeding tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 02:11:21 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210311811.47f55685@posting.google.com>
Source record: 132123

Bill, the reason for depth in concrete is to get the base surface
below the frost line as well as to strengthen the tower i.e. encastre
form.
Also if moisture gets inside the tower legs I wonder what it would
happen if the water freezes !
Art

Bill Ogden <ogden@us.ibm.com> wrote in message news:<3DC02FB3.62C08BC2@us.ibm.com>...
> U.S.Towers said the answer is "no", there is not sufficient connectivity
> in the crankup tower. However, it appears that the tower manufacturers'
> answers to almost any question is "no" due to potential legal exposures.

snip
>
ntly wondering how much over
> specification there is in the concrete requirements for the base. I
> have 150% of the amount of concrete they specify, but mine is not as
> deep as they specify.)
>
> Bill Ogden
> W2WO

1685. Re: Stacking Halos?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 02:47:32 UTC
From: N2NUP <stuff@vhf-uhf.com>
Message-ID: <8XIw9.45575$TX.14312449@twister.nyroc.rr.com>
Source record: 132125

Highly recommended: --> http://www.parelectronics.com/antenna.html

"Andy Cowley" <andy.cowley@uwe.ac.uk> wrote in message
news:3DC15E14.EC5EA74@uwe.ac.uk...
> Anyone help with stacking halos (folded dipoles bent into a near circle)?
> Phasing? spacing? What I'd like to build is a horizontally polarised
> omnidirectional antenna with moderate gain. For 2 metres 144 - 146
> (later possibly for 6 m).
>
> Intuitively I feel that stacking halos should squeeze
> the donut down toward the horizon but I've not found
> any examples on the web so I have this sinking feeling
> that there must be something obvious I'm missing.
>
> Any pointers would be much appreciated.
>
> vy 73 and TIA
>
> Andy, M1EBV/M3ABC

1686. Re: Homebrew Force 12 Sigma 5

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 03:10:36 UTC
From: burgoyne@faux9bit.qc.ca
Message-ID: <3dc1f07a.46078937@news.9bit.qc.ca>
Source record: 132126

you wrote:

>>the Sigma 20 looks its best at 25° with an astounding -0.08dBi....

I've got it: that was 25 degrees (and not when at 25 feet up)
that degree symbol sure was small to read. Thanks for the gain
figures.

>Wire models would work just as well, whatever support system you
>provide. Given the original employed 3/4" components and you describe
>interest using 12ga wire - there will be some difference. Don't stray
>from the geometry. Aside from that, everything should be the same
>(°3dB).
>
ok, it is interesting that the geometry is part of the design. I'll
try to keep the T-bars straight out 90 degrees. I'll need tubing for
those, at least for the top.

>That was NOT a 200pf cap I described:
>>>Again, using EZNEC, I added a -200 Ohm load near the source feed
> C = 1 / (2 * pi * f * Xc)

arrrgh yes, thanks for pointing this to me (reactance, of course)

Thanks for the pointers, I'll try to make one and see what it will
yield.

Stephan, VE2OWL

----
to reply direct, please use: Vee ee too oh double-you ell at arrl.org

1687. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 03:37:25 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <VFmw9.3222$z5.2309899@newssvr28.news.prodigy.com>
Source record: 132124

I modelled one awhile back...as I recall it was a pretty good performer. A better performer though if you only need one band is the Moxon rectangle with better F/B than the Hex...or than a 2 el Yagi for that matter. I was not able to get a decent model of a multi-band Moxon however.

L.B. Cebik has a comparison on his website that is good reading...http://www.cebik.com/4.html ...as is most of the stuff on his site.

--
Larry N8LP

"rhatley" <rhatley@zero.net> wrote in message news:j3m3susf4dm4ts34d6a5839baejvmg7qu6@4ax.com...
> two sites you may want to look at.....
> http://www.iol.ie/~bravo/ahexbeam.htm
> http://home.sprintmail.com/%7Esentek/hexpage1.htm
>
>
>
>
>
> On 01 Nov 2002 00:51:20 GMT, ardujenski@aol.com (ARDUJENSKI) wrote:
>
> >Has anyone had the opportunity to use and evaluate the HEX BEAM and if so any
> >comments on its performance. I see Lou McCoy sang its praises a while back
> >http://www.hexbeam.com/
> >
> >Alan KB7MBI
>

1688. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 04:26:31 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0210312026.738118ab@posting.google.com>
Source record: 132127

dplatt@radagast.org (Dave Platt) wrote in message
news:<us34ua74r6tf38@corp.supernews.com>...
> In article <85ed38d.0210311025.682e@posting.google.com>,
> Art Unwin KB9MZ <aunwin@insightbb.com> wrote:
>
> >David, that statement is yet to be fully acknowledged with the
> >"names "in this group..
>
> So, model it out in a NEC variant and post the model, perhaps? Give
> us something concrete to look at and analyze?
>
> >> and a useful front-to-back
> >> ratio (which a phased collinear dipole would lack),
> > >
> >I am not sure you are totally correct saying that.
> >If I put two of my elements as an array form it would be
> >extremely similar to the "Lazy H '. Can't such an array
> >be made directive with a good front to back i.e. all
> >radiation being additive ?
>
> If you put the second (phased) collinear off to one side, you'll get more
> directional gain in both forwards and backwards direction... but the
> "turning radius" for the array will be huge (maybe 4x the turning

snip

> It'd be great if you'd propose a design in sufficient detail (and with
> unambiguous, industry-standard use of technical terminology) to allow
> it to be modeled.

I'm sorry about your problem in not fully understanding the antenna
that I use. But all is not lost. Pretty much every year I bring the
subject up. To do it more than once is not advisable because a lot of
bricks get thrown. Archives will show all the details,someone in this
group also did some modeling after which it was agreed that the
antenna did exactly what I said. Uproar began when I then talked of
gain increase,unfortunately
it was not accepted that this collinear form does not produce the
"normal"
gain which muddied up the waters completely with respect to what
modeling they
did compared to what I use. So to understand the antenna that I use
you will have to read the archives or wait 10 months when I will bring
it up again.
If one of those naysayers opens the door before then and brings the

subject up then all will change. This particular posting was regarding gain and efficiency
if and when such a design not only comes along but also gets accepted by hams
that are familiar with antenna theory. There is the other side where some are not interested in theory .
This is understandable because it is outside of their understanding but it also brings to the fore raucous comments that one can also here on 80 metres......
sssooooooo once a year is enough.

Best regards
Art

1689. Re: Homebrew Force 12 Sigma 5

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 05:03:09 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <5f24suk6ve3mfh59gng1arqajvqa7hcmdd@4ax.com>
Source record: 132128

On Fri, 01 Nov 2002 03:10:36 GMT, burgoyne@faux9bit.qc.ca (Stephan)
wrote:

>you wrote:

>>Wire models would work just as well, whatever support system you
>>provide. Given the original employed 3/4" components and you describe
>>interest using 12ga wire - there will be some difference. Don't stray
>>from the geometry. Aside from that, everything should be the same
>>(ï¿½3dB).
>>
>ok, it is interesting that the geometry is part of the design.

Geometry is about all you have in this game.

> I'll
>try to keep the T-bars straight out 90 degrees. I'll need tubing for
>those, at least for the top.

As with hand grenades and H bombs, close is good enough.

>
>Thanks for the pointers, I'll try to make one and see what it will
>yield.
>
>Stephan, VE2OWL
>

Hi Stephan,

Great. I hope you get good reports.

73's
Richard Clark, KB7QHC

1690. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 05:05:54 UTC
From: richardharrison@webtv.net
Message-ID: <12720-3DC20BB2-206@storefull-2312.public.lawson.webtv.net>
Source record: 132131

Reg, G4FGQ wrote:
"Incidentally, in a tranceiving situation, the only place in the system where (ideally) a conjugate match is intended to exist is at the tuner-receiver jubction."

Reg is seemingly bored with the paucity of contention, so he`s sought some. I`ll take the bait.

Reg sweetened the pot with "ideally".

OK. Ideally, some will seek maximum power output from their transmitters. Some others have differing ideals which don`t demand the maximum.

Maximum output requires a conjugate match. That`s a natural law. A conjugate match does not require a 50-50 split between transmitter internal dissipation and power delivered to the load. We have a type of lossless resistance making up a large part of the internal resistance of the transmitter.

"Ideally", the path between a transmitter and its load is lossless.

Given lossless transmission between transmitter and load, and given a conjugate match, anywhere the lossless system is broken the impedance looking in one direction is the conjugate of the impedance looking in the opposite direction. That`s another natural law.

Reg has argued that high plate, collector, and drain dynamic resistances preclude a matched load. It isn`t the tiny current change produced by a substantial voltage change that counts in these r-f power amplifiers.

What counts in determining the output resistance that these r-f amplifiers present to their loads is the amount of time that the amplifier spends switched off. This explains the high efficiencies of "Class B" and "Class C" amplifiers. Gaps in the conduction affect average conduction as surely as circuit resistance affects average conduction. Conduction gaps and dissipative nresistance to ciurrent flow have the same effect on average current flow. They reduce it, as both impediments to average current are effectively electrical impedance. The difference between electrical dissipative resistance, and electrical current interruptions is that the dissipative loss converts electrical energy to heat and conduction time loss does not produce heat. So we have a loss resistance and a lossless resistance.

The output resistance of an efficient r-f amplifier is efficient beause much of its output resistance consists of lossless resistance. Thus it can use this lossless resistance in making a match to its load without

condemning the amplifier to a maximum of 50% efficiency.

Best regards, Richard Harrison, KB5WZI

1691. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 05:11:12 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DC20CF0.3A2DB4E5@cwis.net>
Source record: 132129

See Dave, it's all your fault for not understanding
an antenna that Art can't describe in common technical
terminology. Shame on you, and me, and quite a few
others here...
'Doc

1692. What kind of cap should I chose?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 05:12:05 UTC
From: mmsya@aol.com
Message-ID: <20021101001205.20017.00000014@mb-da.aol.com>
Source record: 132130

Hi all,

I need help please. I am building a very simple transmitter. I have a 160 uH coilin in the Drain of 2n7000 (N type MOSFET) and a cap inparallel with the coil and the Source to ground. The Gate is pulse with an I/O of the microcontroller. Let's say that I tune the resonance frequenct at 38KHz. This means I have to choose 110 nF cap (F=1/2.0* PI*SQRT(LC)). I tried two different cap I received two different signal base on the material type that I tested. Is it an standard cap material they select for transmitter type of circuitery? If yes which kind is the best, please?

Thanks,
John.

1693. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 05:27:27 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <4c34su04ks1adovf5vrbrtoih7uc5dg4e5@4ax.com>
Source record: 132132

On Thu, 31 Oct 2002 17:22:39 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

[much good stuff snipped]
|
|So it looks like a practical limit to the amount of gain you can get by
|"activating" the outer half of a 20/10 meter trap dipole is around 2 dB,
|the gain of a plain one wavelength dipole. And to get that, you have to
|deal with some matching issues. The easiest way to do it is the way
|thousands of hams now do -- use open wire line and a tuner.

And this almost precludes rotating this mess to take advantage of the
"gain". I guess it makes some folks feel all warm and fuzzy to know
that they have "gain" over a dipole, even one fixed in orientaion such
that the "gain" is in the wrong direction. <g>

OT, speaking of gain and efficiency. N7WS worked Lou, EA3JE, today at
noon o'clock local time on an almost totally dead 20-meter band. His
58 signal was the only thing heard from Europe. He runs a barefoot
FT1000D.... and six over six over six with the high one at 250'.

Wes

1694. Re: help shunting feeding tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 05:30:41 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <4744su0q3lo31s4epbs32shiiripie9a80@4ax.com>
Source record: 132133

On 31 Oct 2002 18:11:21 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

|Bill, the reason for depth in concrete is to get the base surface
|below the frost line

I thought a frost line was that ring on the inside of my beer mug on a
balmy 110 degree summer day.

1695. interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 06:00:57 UTC
From: Matt <mattpatt@1starnet.com>
Message-ID: <We2cneS1QNfrhV-gXTWcrg@1starnet.com>
Source record: 132134

I received a interesting QSL card today from RA3GS. I sent direct and was actually suprised that I got a card back. Anyway, included in the envelope was this letter. Goto http://www2.1starnet.com/matt/letter/ and take a look at it. I'd like to know what people think about it and if you've received such a letter when sending for a QSL card from this station. He's asking for money. I got no problem sending him a little cash to help out if this is really legit and not some sick and twisted ploy to get money by preying upon the generosity of the ham community.. BTW: He sends a very nice picture full color QSL card so that just makes me more skeptical that this is legit and not a scam. Let me know what you think.

Thanks,

Matt
W5LL

1696. Re: when does small size really reduce radiation?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 06:11:57 UTC
From: richardharrison@webtv.net
Message-ID: <11977-3DC21B2D-291@storefull-2318.public.lawson.webtv.net>
Source record: 132135

Henrik wrote:
"---just erect the biggest dipole as high as possible....as I really feel we have a statement of general truth here."

Yes, but everything has limitations. When a wave travels 1/2-wave along a wire, that is 180 electrical degrees and marks the point of a phase reversal.

An "elemental dipole" (tiny) radiates energy in proportion to its size and the amplitude of the current. This tiny dipole is so small that current and phase are for practical purposes the same everywhere on the wire. A dipole twice the size of the elementary dipole would radiate about twice the energy because its current also would be everywhere the same on the lengthened dipole because it is still very small in terms of wavelength.

You can make a dipole, each half of which is 1/2-wavelength, and the antenna may have no phase reversals. The summation of all the elements of a 1-wave dipole is not nx the contribution of a single particular antenna element of the big dipole because the current is not uniform. It has a more or less sinusoidal distribution on the wire, being minimum at the ends of the wires and maximum in the middle of the 1/2-wave segments of the antenna.

The changing phase and amplitude of current on a long dipole cause change in the propagation pattern for the antenna as its length in terms of wavelength varies.

Best regards, Richard Harrison, KB5WZI

1697. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 06:59:35 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <k764sukkhr05qhi23t2ota3haienou8seg@4ax.com>
Source record: 132136

On Thu, 31 Oct 2002 20:34:18 -0000, dplatt@radagast.org (Dave Platt)
wrote:

>It'd be great if you'd propose a design in sufficient detail (and with
>unambiguous, industry-standard use of technical terminology) to allow
>it to be modeled.
>
>--
>Dave Platt <dplatt@radagast.org> AE6EO

Hi Dave,

Here's an address Art forgot the last time around:
http://www.roadkill.com/~unwin/
Took near a month to get around to it.

73's
Richard Clark, KB7QHC

1698. A Source for Large (i.e., Long) Telescopic Whip Elements?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 08:37:18 UTC
From: Will White <googlyelmo@earthlink.net>
Message-ID: <3DC23D41.6FAD9FC@earthlink.net>
Source record: 132137

I am in search of long telescopic whip antenna elements for a portable loaded HF dipole I am making. The largest I have found thus far are 72" extended, and I need 96-108", about .25" diameter, not more than .50" fattest section, with a threaded or punched base for mounting. I have tried Rat Shack and the usual catalog suppliers (Mouser, Fair Radio, Ocean State, AES) without success. Does anyone know of a mail-order source for such parts?

--
Will White, KD7BFX
Seattle WA US
King County, Grid CN87tq
ITU Zone 6, CQ Zone 3
****
"The wireless telegraph is not difficult to understand.
The ordinary telegraph is like a very long cat.
You pull the tail in New York, and it meows in Los Angeles.
The wireless is the same, only without the cat."
- Albert Einstein
****

1699. Re: when does small size really reduce radiation?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 09:56:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us4jv43f62t640@corp.supernews.com>
Source record: 132138

Richard Harrison wrote:

> . . .
> An "elemental dipole" (tiny) radiates energy in proportion to its size
> and the amplitude of the current. This tiny dipole is so small that
> current and phase are for practical purposes the same everywhere on the
> wire.

The current on a very short dipole made from very thin wire isn't uniform -- it's linear. It's maximum at the center and drops nearly linearly to the dipole end, where it's zero. In analyses, end plates are sometimes added, which does bring the current to an essentially uniform distribution.

A dipole twice the size of the elementary dipole would radiate
> about twice the energy because its current also would be everywhere the
> same on the lengthened dipole because it is still very small in terms of
> wavelength.

If you feed both dipoles with the same current, the field strength, not energy, from the longer one is twice that from the shorter one. So the power (energy per unit time) or power density is four times as great. But the radiation resistance of the longer one is four times the radiation resistance of the shorter one, so the power you're putting into it (I^2 * Rr) is also four times as great. If you feed both antennas with the same power, you'll get the same field strength, power, and power density from both.

> . . .

Roy Lewallen, W7EL

1700. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 11:57:49 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DC25DFF.6C11CFF5@uwe.ac.uk>
Source record: 132140

Reg Edwards wrote:
>
> "Andy Cowley" wrote -
> > Isn't a length of coax in an unmatched situation like that just the same
> as
> > a capacitor in parallel with the aerial?
> ========================
>
> No. It's much the same as a capacitor in shunt with the receiver which is
> only 50 ohms so it doesn't have much effect.

The capacitance of coax had always worried me. RG58 is ~ 25 pF/ft so 30 ft. of coax is 750 pF and at 30 MHz that's ~7 ohms - surely significant to a 50 ohm circuit? Even at 2 MHz its only 100 ohms or so.

Still puzzled.

vy 73

Andy, M3ABC

1701. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 12:00:01 UTC
From: B.Urban@ix.netcom.com
Message-ID: <3dc26cb6.5748514@nntp.ix.netcom.com>
Source record: 132139

On Fri, 1 Nov 2002 00:00:57 -0600, "Matt" <mattpatt@1starnet.com>
wrote:
scam
>I received a interesting QSL card today from RA3GS. I sent direct and was
>actually suprised that I got a card back. Anyway, included in the envelope
>was this letter. Goto http://www2.1starnet.com/matt/letter/ and take a look
>at it. I'd like to know what people think about it and if you've received
>such a letter when sending for a QSL card from this station. He's asking
>for money. I got no problem sending him a little cash to help out if this
>is really legit and not some sick and twisted ploy to get money by preying
>upon the generosity of the ham community.. BTW: He sends a very nice
>picture full color QSL card so that just makes me more skeptical that this
>is legit and not a scam. Let me know what you think.
>
>
>Thanks,
>
>Matt
>W5LL
>
>

1702. Re: Stacking Halos?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 12:02:34 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DC25F16.8DA91ADC@uwe.ac.uk>
Source record: 132141

> Andy Cowley wrote:
>
> > Anyone help with stacking halos (folded dipoles bent into a near circle)?
> > Phasing? spacing? What I'd like to build is a horizontally polarised
> > omnidirectional antenna with moderate gain. For 2 metres 144 - 146
> > (later possibly for 6 m).
Martin Hibbs wrote:
>
>
> Here you are: http://www.kb6kq.com/index.html
>
N2NUP wrote:
>
> Highly recommended: --> http://www.parelectronics.com/antenna.html
>

Thanks for the two commercial options, guys, but I want to understand
and build my own. Still looking.

vy 73

Andy, M3ABC

1703. Re: Stacking Halos?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 12:12:05 UTC
From: "Edward A. Feustel" <efeustel@erols.com>
Message-ID: <aptqv7$i18$1@bob.news.rcn.net>
Source record: 132142

I have an old antenna -- 4 way stacked bigwheels. Each bigwheel consists of
3 full wave loops offset at
120 degrees. I rebuilt the phasing harness and can give you dimensions if
you wish. The antennas
are stacked every 48" (5/8 wave).

Ed, N5EI

"Andy Cowley" <andy.cowley@uwe.ac.uk> wrote in message
news:3DC15E14.EC5EA74@uwe.ac.uk...
> Anyone help with stacking halos (folded dipoles bent into a near circle)?
> Phasing? spacing? What I'd like to build is a horizontally polarised
> omnidirectional antenna with moderate gain. For 2 metres 144 - 146
> (later possibly for 6 m).
>
> Intuitively I feel that stacking halos should squeeze
> the donut down toward the horizon but I've not found
> any examples on the web so I have this sinking feeling
> that there must be something obvious I'm missing.
>
> Any pointers would be much appreciated.
>
> vy 73 and TIA
>
> Andy, M1EBV/M3ABC

1704. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 12:22:00 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DC263AA.AA2FD21F@uwe.ac.uk>
Source record: 132143

Matt wrote:
>
> I received a interesting QSL card today from RA3GS. I sent direct and was
> actually suprised that I got a card back. Anyway, included in the envelope
> was this letter. Goto http://www2.1starnet.com/matt/letter/ and take a look
> at it. I'd like to know what people think about it and if you've received
> such a letter when sending for a QSL card from this station. He's asking
> for money. I got no problem sending him a little cash to help out if this
> is really legit and not some sick and twisted ploy to get money by preying
> upon the generosity of the ham community.. BTW: He sends a very nice
> picture full color QSL card so that just makes me more skeptical that this
> is legit and not a scam. Let me know what you think.
>
> Thanks,
>
> Matt
> W5LL

I may be doing the guy an injustice but check out his qrz.com picture. That's a big mast/antenna plus a lot of gear. None of that was free. Still, times are very hard in the former Soviet Union, so maybe he does need help. He's certainly a lot less well off than most hams in the west. I'd say send him the money if it doesn't hurt you, but don't feel guilty if you don't. I don't think he'll spend it on booze or drugs like most panhandlers would but maybe on a new rig. ;-)

just my tuppence worth

vy 73

Andy, M3ABC

1705. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 12:33:29 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DC2665B.8D954A5A@uwe.ac.uk>
Source record: 132144

Dave Platt wrote:
>
> I just wish I could find a really convenient way to switch the
> additional balanced feedline sections in and out... my "shack" is a
> corner of one bedroom, and there isn't really a convenient indoor
> location for the necessary collection of feedline segments. I haven't
> been able to figure out a good sort of remote-controlled relay to use
> for this purpose, and using a bank of long-strike solenoids to throw
> knife switches feels a bit rube-goldbergish.
>

Vacuum relays - look for an ex-military auto atu at a hamfest. some
are motorised variable components but others have switched fixed
components a la SGC and are stuffed with vacuum relays. A friend
beat me to a unit with 20 of them at a hamfest here in the U.K.
He paid $50 (well ï¿½30 actually) Grrrr.

Buying new is not an option unless you have a very deep pocket.

vy 73

Andy, M3ABC

1706. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 13:27:26 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0211010527.4580f4c@posting.google.com>
Source record: 132145

Roy,

When reading your post 'between the lines', I believe the theoretical antennas you are talking about were meant to radiate broadside to the wire.

There is another type of antenna that does not have that constraint, that I find of interest. If you have several hundred feet to play with it is relatively easy to put one up, but it is not rotatable and can have a relatively sharp pattern at higher frequencies.

What I am thinking about is called a type of 'traveling wave antenna'. It is similar to a beverage but operates more on the principles of a long wire. In fact, I have also seen it called a 'terminated long wire'. This consists of literaly a long wire fed at one end, and the other end connected to ground through a resistive load of a few hundred ohms. The height of the wire above ground, unlike a Beverage, is 20 or 30 feet in the design I have seen.

There will be a constant uniform current distribution along the wire across a broad range of frequencies. According to Kraus the radiation pattern is conical shape, with the angle of the cone from broadside increasing as the wire gets longer. The limit seems to be about 60 to 70 degrees from broad side for a very long wire. Of course gain increases as the wire gets longer. When I say 'gets longer', I mean in terms of wavelength, so you can either physically make the wire longer or increase your frequency.

When I get a chance I will model it in Elnec demo and see what it can do.

Jim
N8EE

1707. Re: when does small size really reduce radiation?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 13:39:25 UTC
From: richardharrison@webtv.net
Message-ID: <27735-3DC2840D-15@storefull-2316.public.lawson.webtv.net>
Source record: 132146

Roy Lewallen, W7EL wrote:
"The current on a very short dipole made from thin wire isn`t
uniform--it`s linear."

Yes. I mis-spoke. Obviously, when the wire ends, there is a
discontinuity in current.

Roy also wrote:
" feed both dipoles with the same current, the field strength, not
energy, from the larger one is twice that from the shorter one."

Yes. I mis-spoke again. When you double the volts per meter, the power
is quadrupled.

Sorry I was so careless. The point I was so poorly trying to make was
that radiation from a too-long antenna can produce destructive
interference in a desired direction, so longer is not always better.

Best regards, Richard Harrison, KB5WZI

1708. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 13:56:21 UTC
From: fractenna@aol.com
Message-ID: <20021101085621.21997.00000606@mb-cv.aol.com>
Source record: 132147

>I received a interesting QSL card today from RA3GS. I sent direct and was
>actually suprised that I got a card back. Anyway, included in the envelope
>was this letter. Goto http://www2.1starnet.com/matt/letter/ and take a look
>at it. I'd like to know what people think about it and if you've received
>such a letter when sending for a QSL card from this station. He's asking
>for money. I got no problem sending him a little cash to help out if this
>is really legit and not some sick and twisted ploy to get money by preying
>upon the generosity of the ham community.. BTW: He sends a very nice
>picture full color QSL card so that just makes me more skeptical that this
>is legit and not a scam. Let me know what you think.
>
>
>Thanks,
>
>Matt
>W5LL
>

You'll have to judge if its sincere. My bet is yes.

Several years ago I commonly sent $5-10 with certain QSL's(and science colleagues) to Russia--not that I needed the QSL. This was unsolicited: some of these guys hadn't seen income in many,many months. The bad news is that the mail was commonly opened long before it got to the OM's it was sent to. It was frustrating in the extreme for both parties.

73,
Chip N1IR

1709. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 14:13:33 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <3dc289ca.240007046@news.galilei.com>
Source record: 132148

Hi Matt

I don't know whether the guy is legit or not, however, I have received many such letters over the years, especially when I was working all African continent, which I finally achieved.

I look at it this way. There's no way I could afford some of the elaborate setups some of the stations I have spoken with boast about on the air and on their QSL cards.

I know we all have our ups and downs and perhaps when they assembled their stations they were doing great financially and have hit a recent downturn. So I do not try to judge the persons motives for asking for money.

But it seems to me that if I'm running an Hw-101 into a dipole and their running 2 gigawatt boosted newer Kenwoods into massive beams up a couple of hundred feet. Hey eBay is everywhere. They can sell something if their so poor they need to beg for money.

Look at it more realistically, would you give someone rolling a Benz a free handout when your still holding your Nash together with bailing wire and bubble gum?

TTUL
Gary

1710. Re: HamCalc & Windows XP ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 14:42:27 UTC
From: Eskay <Nospamve3jua@rac.ca>
Message-ID: <3DC292D2.98BD6FA@rac.ca>
Source record: 132150

ve3erp@encode.com
His latest version is 56 or something like that..
The latest I have seen on the web was V32 and it worked fine for me for a
while..
73 de VE3JUA.

Jesse wrote:

> Where can I get a working copy, I downloaded it and it failed to install,
> some missing files. Redownloaded and same thing...
>
> Dick wrote:
>
> > Hamcalc V-10 with Windows XP
> >
> > I receive an error-76 when executing any command from the main menu.
> >
> > I have set all items that I could to Windows 95 compatibility.
> >
> > Have tried by typing VE3ERP at c:\ and also by executing the Menu program
> > directly from GWBasic. Same error in all cases ?? help
> >
> > Dick N3HKN

1711. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 14:47:45 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211010647.12841aa1@posting.google.com>
Source record: 132149

Roy Lewallen <w7el@eznec.com> wrote in message news:<us3lrc82l8tl14@corp.supernews.com>...
> I took a quick look at how you'd go about making a dual band 20/10
> meter antenna that would have more gain on 10 meters than a trap dipole.
> A typical collinear antenna is 1.5 wavelengths long -- a half wave
> element in the middle, with a phasing stub at each end, then a half wave
> of wire beyond each phasing stub -- or longer, with additional stubs and
> half wave sections. With the 1.5 wavelength arrangement, you can get
> around 3 dB gain over a half wave dipole. But for the hypothetical dual
> band antenna, you've only got one wavelength to work with on 10 meters.
> I fiddled a little with some stubs on a one wavelength antenna, but
> couldn't do as well as I did with no stubs at all. With no stubs, you've
> got a plain one wavelength dipole, with gain of about 1.8 dB over a half
> wave dipole. There's nothing wrong with this, except you've got a very
> high impedance (thousands of ohms) to match on 10 meters, while on 20
> meters the impedance is pretty close to being a good match for coax. For
> most applications, less than 2 dB wouldn't be worth the hassle.
>
> Art, you said or implied a few postings ago that you could get
> substantially more gain from a one wavelength dipole (by making the
> whole wire radiate) than from a half wavelength dipole. Let's take a
> look at what might be possible.
>
> In "A Critical Study of the Characteristics of Broadcast Antennas as
> Affected by Antenna Current Distribution" (Proceedings of the I.R.E.,
> January 1936), G.H. Brown investigates the effects of modifying the
> current distribution on vertical radiators of various heights. Among the
> current distributions he analyzes are a constant current along the wire.
> He found that a constant current didn't give any substantial improvement
> over a sinusoidal distribution (that is, a plain wire with no trickery
> at all). "It is seen that this antenna [with constant current] must be
> practically 190 degrees tall to simulate a 190-degree antenna with
> sinusoidal distribution. Thus this scheme does not appear to be very
> promising, for it does not seem reasonable to go to all the trouble
> involved in getting a constant current along the antenna when the same
> vertical pattern can be obtained by merely using a straight vertical
> wire antenna of the same height." Then, speaking of all the different
> current distributions he investigated, he says, "For heights of the
> order of a half wavelength, it is hard to find anything better than a
> straight vertical wire."
>
> So Brown wasn't able to come up with much of an improvement over just a
> straight wire when dealing with half wavelength verticals.
>
> Lincoln La Paz and Geoffrey A. Miller took it one step farther in

> "Optimum Current Distributions on Vertical Antennas" (Proceedings of the
> I.R.E., May, 1943), and actually calculated what they determined to be
> the best possible theoretical current distributions on wires of various
> lengths, without regard to how you might be able to achieve them, and
> calculated the resulting gain. They claim that you can't do better than
> these optimal distributions no matter what other current distribution
> you come up with. For a half wavelength vertical, the optimum
> distribution produces a gain of about 1.6 dB over a plain half
> wavelength wire (with sinusoidal distribution). So if they're correct,
> the very best gain you can get from a full wavelength wire (or half
> wavelength ground mounted vertical), no matter how you fiddle the
> current distribution, is about 3.6 dB over a half wave dipole (or
> quarter wave ground mounted vertical). (They show the gain of a half
> wave vertical to be about 2.0 dB.)
>
> This is a respectable amount of gain over a half wavelength dipole. But
> how do you get it? They show the current distribution necessary to get
> this gain as a relatively low current until you get within about an
> eighth wavelength of the end, then the current increases pretty
> dramatically. A phase shift occurs about 1/3 of the way up. From a
> drawing of the distribution, it looks like the current at the antenna
> tips has to be 5 - 10 times or more the current along 3/4 of the central
> section. I don't know how you'd achieve a current distribution like
> this, and wouldn't be surprised if it's not possible. So-called
> "controlled current distribution" (CCD) antennas, using capacitors
> inserted at various places along the wire, strive to achieve a constant
> current along the wire. But as Brown showed, this doesn't give you much
> gain over a plain wire.
>
> So it looks like a practical limit to the amount of gain you can get by
> "activating" the outer half of a 20/10 meter trap dipole is around 2 dB,
> the gain of a plain one wavelength dipole. And to get that, you have to
> deal with some matching issues. The easiest way to do it is the way
> thousands of hams now do -- use open wire line and a tuner.
>
> How much gain can *you* can get from a one wavelength wire compared to
> a half wavelength dipole? If it's substantially more than 2 dB, how much
> do you get and how do you do it?
>
> Roy Lewallen, W7EL

Roy,
What you are quoting I.E historic attempts to gat constant current is
well
known. The CCD also attempted to do the same thing.
I also agree that such actions are not the best way to go. What I did
is to look at things from a efficiengy/length point of view as
follows.
Looking at the current curve of a half wave dipole it is obvious that
the highest current is at the center and zero at it ends. In looking

for maximum efficiency/per unit length I chopped off the ends where length produced minimal gain. Methods of doing that are well known, one only has to decide what area
under the current curve they are willing give up in the pursuit of efficiency.
If one then superimposed TWO modified, chopped short current curves on a half wave length it takes on the shape of a 'quasi' collinear with a center space
showing empty space or minimal radiation. To be able to make this truly
collinear one has to put a phase mechanism at the center so the repeating current curves are on the same plane.This I did thus leaving two high efficiency shortened curves at each end where the maximum current peaks are at a distance from each other to produce a collinear array.
The question in the past has been does it produce more gain ?
Worth while gain was stated to be 1 db or more and my main detractor rediculed the idea that such an antenna could produce gains.
As no one on this group disagreed with that position (inluding the doctor)
I then became a target in a similr fashion as the fractal,e/h antenna or a particular commercial antenna manufacturer and unfortunatly it brought out the worst of me in retaliation. Never the less, my design does what I say it does,
I have shared it with all and over the years have placed a page tho poorly done,
on the web. I am holding nothing back,done modeling that show db gain where
detractors would only accept dbi modeeling. I might add that with many good and experienced modellers in the group it would be a futile attempt to counter
suggestion that I made programming errors as I was not using EZNEC programs
leaving me a tough row to how. All of the above is basically what I gave on the last go around on the thread remarking on collinear gains e.t.c a couple months ago as you well know.
I ofcourse still hold you in high regard but would also point out that one poster pointed out another old book that did not point to the notion in
disfavour.

Regards
Art Unwin KB9MZ......XG.
was stated as one db or more

1712. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 14:52:22 UTC
From: richardharrison@webtv.net
Message-ID: <20288-3DC29526-7@storefull-2315.public.lawson.webtv.net>
Source record: 132153

Andy Cowley wrote:
"The capacitance of coax has always worried me. RG58 is ~ 25 pF / ft so 30 ft of coax is 750 pF and at 30 MHz that`s ~ 7 ohms - surely significant to a 50 ohm circuit. Even at 2 MHz it is only 100 ohms or so."

The coax does not appear to either the aerial or the receiver as a shunt capacitor in most instances. An infinite lossless coax would present a pure resistance.

A lossless coax does not discriminate against higher frequencies because all the energy entering one end emerges the other end regardless of frequency.

Capacitance produced by a transmission line is usually caused by reflection. A peculiarity of an 1/8-wave open circuit stub is its capacitive reactance which equals the surge impedance of the line.

At low frequencies, pieces of coax can be conveniently cut to length to produce a desired capacitance so long as the length is very short in terms of wavelength. If the length of the capacitor so constructed becomes too long, reflection of the traveling wave produces a phase displacement and an impedance variation often associated with SWR.

Reflections are avoided in coax by terminating it in its characteristic impedance, a resistance.

Best regards, Richard Harrison, KB5WZI

1713. Re: A Source for Large (i.e., Long) Telescopic Whip Elements?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 15:03:57 UTC
From: "Alexander S. Wood" <alec_wood@dont.spam.me.ntlworld.com>
Message-ID: <1Kww9.2837$iG2.40844@newsfep1-gui.server.ntli.net>
Source record: 132151

Many moons ago, the first CB hand helds sold after legalisation of CB in the UK (1981) jad a 102" telescopic. Radio Shack (Tandy) sold these under the "Realistic" brand name. MAybe although when requested for a whip they have not got one, but try asking for a replacement antenna for Realistic TRC xxxx (cannot remember the number) you will get a different answer. Maybe also try the CB spares suppliers. These sets were sold here under at least a dozen different brand names, Alba, Harvard, Maxcom. Incidentally, I used to have a similar set from the USA, a Hy-Gain 40ch multimode. I've never yet seen another non-military SSB handy.

I'll tell you what, it didn't half look strange - someone talking into a handy bigger than a house brick with a 9 foot whip on it!

Good luck

Alec Wood M1BNK
Teesside UK

"Will White" <googlyelmo@earthlink.net> wrote in message news:3DC23D41.6FAD9FC@earthlink.net...
> I am in search of long telescopic whip antenna elements for a portable
> loaded HF dipole I am making. The largest I have found thus far are 72"
> extended, and I need 96-108", about .25" diameter, not more than .50"
> fattest section, with a threaded or punched base for mounting. I have
> tried Rat Shack and the usual catalog suppliers (Mouser, Fair Radio,
> Ocean State, AES) without success. Does anyone know of a mail-order
> source for such parts?
>
> --
> Will White, KD7BFX
> Seattle WA US
> King County, Grid CN87tq
> ITU Zone 6, CQ Zone 3
> **********
> "The wireless telegraph is not difficult to understand.
> The ordinary telegraph is like a very long cat.
> You pull the tail in New York, and it meows in Los Angeles.
> The wireless is the same, only without the cat."
> - Albert Einstein
> **********
>
>

1714. Re: Stacking Halos?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 15:11:30 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <TNWdncgCvIDDBF-gXTWcpg@comcast.com>
Source record: 132152

Andy,

Assuming the Halos are 50 ohm antennas, you just need two lengths of 75 ohm coax to phase them. Each piece of 75 ohm coax is 3/4 wavelengths long, which, at 144.5 MHz, would be about 61 inches long for RG59 foam, or about 54 inches for garden variety RG11. First make sure the two halos are identically adjusted; now run the 75 ohm coax from each halo to a UHF T connector. Connect 50 ohm coax from your radio to the third leg of the T connector. You will want to space the halos as far apart as possible. Using the full length of the RG59 is not unreasonable. I used this method to stack a pair of Cushcraft 7 element 2 meter beams, and they worked fine. SWR at the end of about 50 feet of coax was around 1.2:1. I used it for both SSB and repeaters at the high end of the band. After 10 years there was no problem with corrosion of connectors or such.. There may be some advantage to using a nonmetallic mast, like plastic water pipe (the more rigid white kind).

Tam/WB2TT
"Andy Cowley" <andy.cowley@uwe.ac.uk> wrote in message
news:3DC15E14.EC5EA74@uwe.ac.uk...
> Anyone help with stacking halos (folded dipoles bent into a near circle)?
> Phasing? spacing? What I'd like to build is a horizontally polarised
> omnidirectional antenna with moderate gain. For 2 metres 144 - 146
> (later possibly for 6 m).
>
> Intuitively I feel that stacking halos should squeeze
> the donut down toward the horizon but I've not found
> any examples on the web so I have this sinking feeling
> that there must be something obvious I'm missing.
>
> Any pointers would be much appreciated.
>
> vy 73 and TIA
>
> Andy, M1EBV/M3ABC

1715. Re: Cushcraft R5 toroid info?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 15:15:38 UTC
From: Henrik <henrik>
Message-ID: <3dc29a96$0$97611$edfadb0f@dspool01.news.tele.dk>
Source record: 132154

"AA" <derswede@aol.comspam.com> wrote in message
news:20021026000726.07901.00000554@mb-fl.aol.com...
> Got an R5 with broken toroids in the matching section...anyone (other than
> Cushcraft, natch) have any replacements for these? (specs will do if
anyone
> happens to have info on the parts). I'm going to rebuild it for the
cabin,
> seems to be a decent little vertical except for the dead toroids. Seems
that
> Cushcraft wants to sell only the entire box....I'd rather fix just what's
wrong
> with it.
>
> Tnx in advance;
> A

Have a look at http://www.iol.ie/~bravo/r7_vertical.htm
Rgds
H

1716. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 15:21:21 UTC
From: Matt <mattpatt@1starnet.com>
Message-ID: <vdOdnbVrrNZbBl-gXTWcpQ@1starnet.com>
Source record: 132155

He only asked for 5 or 10 dollars. I got no problem with sending him some money. I just wanted to see if anyone else has received such a letter like this before.

Thanks and 73s

Matt
W5LL

"Andy Cowley" <andy.cowley@uwe.ac.uk> wrote in message news:3DC263AA.AA2FD21F@uwe.ac.uk...
> Matt wrote:
> >
> > I received a interesting QSL card today from RA3GS. I sent direct and was
> > actually suprised that I got a card back. Anyway, included in the envelope
> > was this letter. Goto http://www2.1starnet.com/matt/letter/ and take a look
> > at it. I'd like to know what people think about it and if you've received
> > such a letter when sending for a QSL card from this station. He's asking
> > for money. I got no problem sending him a little cash to help out if this
> > is really legit and not some sick and twisted ploy to get money by preying
> > upon the generosity of the ham community.. BTW: He sends a very nice
> > picture full color QSL card so that just makes me more skeptical that this
> > is legit and not a scam. Let me know what you think.
> >
> > Thanks,
> >
> > Matt
> > W5LL
>
> I may be doing the guy an injustice but check out his qrz.com picture. That's
> a big mast/antenna plus a lot of gear. None of that was free. Still, times are
> very hard in the former Soviet Union, so maybe he does need help. He's certainly
> a lot less well off than most hams in the west. I'd say send him the money if it

> doesn't hurt you, but don't feel guilty if you don't. I don't think he'll
spend
> it on booze or drugs like most panhandlers would but maybe on a new rig.
;-)
>
> just my tuppence worth
>
> vy 73
>
> Andy, M3ABC

1717. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 15:39:20 UTC
From: k1bqt@aol.com
Message-ID: <20021101103920.21073.00001594@mb-fx.aol.com>
Source record: 132156

A couple years back, I did a fairly extensive side-by-side comparisons between a Moxon rectangle and an equally sited monoband Hex Beam--both home brew antennas on 10 meters. I found no discernable difference in performance between the two (my short-boom 3-element Yagi did a couple dB better than either of them). Considering my hex weighed less than a pound and was virtually invisible, I thought it was pretty impressive. No magic, though!

Rick K1BQT

1718. Re: What kind of cap should I chose?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 15:57:19 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <ywydndzbSv-GOV-gXTWc3g@comcast.com>
Source record: 132157

John,

Do not use ceramic capacitors that are meant for bypassing. Mica is best,
but any of the film capacitors like Polyester or Polyproylene should work.
If you have old paper or mylar capacitors, they will be OK. I have seen
ceramic capacitors not work in a 50 KHz tuned circuit.

Tam/WB2TT
"Mmsya" <mmsya@aol.com> wrote in message
news:20021101001205.20017.00000014@mb-da.aol.com...
>
>
> Hi all,
>
> I need help please. I am building a very simple transmitter. I have a
160 uH
> coilin in the Drain of 2n7000 (N type MOSFET) and a cap inparallel with
the
> coil and the Source to ground. The Gate is pulse with an I/O of the
> microcontroller. Let's say that I tune the resonance frequenct at 38KHz.
This
> means I have to choose 110 nF cap (F=1/2.0* PI*SQRT(LC)). I tried two
different
> cap I received two different signal base on the material type that I
tested.
> Is it an standard cap material they select for transmitter type of
circuitery?
> If yes which kind is the best, please?
>
> Thanks,
> John.

1719. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 16:10:11 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <ic95suodigf7re5t26eue15pqeu2tb79ed@4ax.com>
Source record: 132158

On Fri, 1 Nov 2002 00:00:57 -0600, "Matt" <mattpatt@1starnet.com>
wrote:

|I received a interesting QSL card today from RA3GS. I sent direct and was
|actually suprised that I got a card back. Anyway, included in the envelope
|was this letter. Goto http://www2.1starnet.com/matt/letter/ and take a look
|at it. I'd like to know what people think about it and if you've received
|such a letter when sending for a QSL card from this station. He's asking
|for money. I got no problem sending him a little cash to help out if this
|is really legit and not some sick and twisted ploy to get money by preying
|upon the generosity of the ham community.. BTW: He sends a very nice
|picture full color QSL card so that just makes me more skeptical that this
|is legit and not a scam. Let me know what you think.
|

I hope I am wrong, but this sounds like a panhandler on the street
corner asking for a little change for some food while a cigarette
hangs from his mouth.

Too many tragedies for me. He can't walk *and* his house burned down.
But, send the money and he'll send a second color picture of his new
antenna.

I don't mind fostering internation good will, hell, I had a Russian
ham ask me for a picture of the Grand Canyon. So the XYL and I used
that as an excuse to drive up there and take a photo of me in front of
the canyon and I sent it to him along with a copy of Arizona Highways
magazine. (Okay... we were going anyway:)

But when I advertised a transceiver for sale and a Russian wanted to
buy it and wanted my bank account number so he could direct-deposit
the funds, I rang up "NO SALE." There have to be limits on goodwill.

My $.02

1720. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 16:23:06 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DC29C2C.5A9E5207@uwe.ac.uk>
Source record: 132159

Richard Harrison wrote:
>
> Andy Cowley wrote:
> "The capacitance of coax has always worried me. RG58 is ~ 25 pF / ft so
> 30 ft of coax is 750 pF and at 30 MHz that`s ~ 7 ohms - surely
> significant to a 50 ohm circuit. Even at 2 MHz it is only 100 ohms or
> so."
>
> The coax does not appear to either the aerial or the receiver as a shunt
> capacitor in most instances. An infinite lossless coax would present a
> pure resistance.
>
> A lossless coax does not discriminate against higher frequencies because
> all the energy entering one end emerges the other end regardless of
> frequency.
>
> Capacitance produced by a transmission line is usually caused by
> reflection. A peculiarity of an 1/8-wave open circuit stub is its
> capacitive reactance which equals the surge impedance of the line.
>
> At low frequencies, pieces of coax can be conveniently cut to length to
> produce a desired capacitance so long as the length is very short in
> terms of wavelength. If the length of the capacitor so constructed
> becomes too long, reflection of the traveling wave produces a phase
> displacement and an impedance variation often associated with SWR.
>
> Reflections are avoided in coax by terminating it in its characteristic
> impedance, a resistance.
>
> Best regards, Richard Harrison, KB5WZI

Dear Richard,

Yep, I know about coax as a transmission line. The subject here was a
random wire connected to a receiver via a length of coax. I.e. the wire
connected to the centre conductor and nothing connected to the shield
at the aerial end. Shield grounded at the RX end.

```
RX + ------------------------------------------------------------------
-------------------------
|
RX GND COAX RANDOM WIRE
```

I think my figures apply here, don't they? Doesn't the coax look like
a capacitor shunting the RX input?

vy 73

Andy, M3ABC

1721. Re: Free Space analysis useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 16:35:46 UTC
From: SeeSignature@below.com
Message-ID: <3dc2aa91.314894475@news.ga.comcast.giganews.com>
Source record: 132160

If you have the segment capacity, you might want to include models of all major nearby conductors in your antenna model - in addition to the house wiring you mentioned, you probably have power lines, metal yard buildings, metal fences and other antennas close enough to distort the patterns at very low levels. Perhaps even the tower that supports it.

Reflection or scattering from these things will probably make a difference at those levels. And their effect will vary as you rotate the beam.

"BUILD", included in the freeware 4NEC2 package, can generate approximate models of metal buildings, roofs, etc, which you could then import as a NEC file into your NWP model.

Jerry W4UK

On Thu, 31 Oct 2002 15:54:50 -0500, Scott <scott2rp789@netscape.net> wrote:

>Your words about those nulls being difficult to achieve is disappointing! A
>30dB F/B is great, but it became obvious if I could make these deep ("corner")
>nulls occur in real life, a little adjustment of the rotor off into the -50dB
>null, no F/B ratio could match! The environmental factors you mention are
>definitely going to exist for me - There are some 220V lines that run the
>length of the attic that will (probably) influence the pattern. I was just
>hoping that once I built the antenna, I could find that pattern I saw on my
>design frequency maybe somewhere off to either side, but close!
>
>You mention that it is worthwhile to squeeze a higher F/B ratio out - so does
>this still apply some what to these "back corner" nulls i've tried to
>maximize? They are -70dB in free space and -50dB when I model over ground.
>Jeezzzz, I'd like to keep them!
>
>Thanks!
>
>Scott.
>
>
>
>
>Roy Lewallen wrote:
>
>> After you model the antenna in free space and tweak it, then model it
>> over ground. You'll find that the strength of the rear lobe depends on
>> the elevation angle. If there's one particular angle or range of angles
>> where you need especially high front/back, you might be able to tweak a

>> little more to get the smallest radiation from the rear at that angle.
>>
>> But nulls are a lot tougher to accomplish in practice than gain or
>> forward pattern. The reason is that nulls are brought about by
>> subtracting a number of large fields to get a result near zero. Even a
>> slight percentage disturbance in any of the large fields has a big
>> effect on the nulls, while its effect on gain or forward pattern will be
>> minimal. So nulls also suffer from environmental factors such as nearby
>> conductors, slight asymettry in the antenna, and so forth. In practice,
>> you might not see quite as much front/back as the program predicts, no
>> matter how much you tweak the model. So it's worthwhile to get a good
>> front/back ratio on the model, but probably not worthwhile to spend
>> hours squeezing the last few dB out of it.
>>
>> Roy Lewallen, W7EL
>>
>> Scott wrote:
>> > I have spent months using NEC Win Plus (NEC2) to come up with a 4
>> > element Yagi to fit my needs. I mostly use free space to start out
>> > tweaking. Ok - Now I have that "perfect" pattern with deep back corner
>> > nulls - but when I actually build this antenna and mount it up on the
>> > roof have I wasted my time? Should I be using the "Real Ground" or some
>> > other (non free space) option to make sure I get the rear pattern I want
>> > when I actually build the antenna?
>> >
>> > Thanks!
>> >
>> > Scott.
>> >
>> >
>> >
>

1722. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 17:11:08 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <apucje020mq@enews4.newsguy.com>
Source record: 132163

"Andy Cowley" <andy.cowley@uwe.ac.uk> wrote in message
news:3DC29C2C.5A9E5207@uwe.ac.uk...
> Richard Harrison wrote:
> >
> > Andy Cowley wrote:
> > "The capacitance of coax has always worried me. RG58 is ~ 25 pF / ft so
> > 30 ft of coax is 750 pF and at 30 MHz that`s ~ 7 ohms - surely
> > significant to a 50 ohm circuit. Even at 2 MHz it is only 100 ohms or
> > so."
> >
> > The coax does not appear to either the aerial or the receiver as a shunt
> > capacitor in most instances. An infinite lossless coax would present a
> > pure resistance.
> >
> > A lossless coax does not discriminate against higher frequencies because
> > all the energy entering one end emerges the other end regardless of
> > frequency.
> >
> > Capacitance produced by a transmission line is usually caused by
> > reflection. A peculiarity of an 1/8-wave open circuit stub is its
> > capacitive reactance which equals the surge impedance of the line.
> >
> > At low frequencies, pieces of coax can be conveniently cut to length to
> > produce a desired capacitance so long as the length is very short in
> > terms of wavelength. If the length of the capacitor so constructed
> > becomes too long, reflection of the traveling wave produces a phase
> > displacement and an impedance variation often associated with SWR.
> >
> > Reflections are avoided in coax by terminating it in its characteristic
> > impedance, a resistance.
> >
> > Best regards, Richard Harrison, KB5WZI
>
>
> Dear Richard,
>
> Yep, I know about coax as a transmission line. The subject here was a
> random wire connected to a receiver via a length of coax. I.e. the wire
> connected to the centre conductor and nothing connected to the shield
> at the aerial end. Shield grounded at the RX end.
>
> RX + --
> -------------------------
> |

> RX GND COAX RANDOM WIRE
>
>
> I think my figures apply here, don't they? Doesn't the coax look like
> a capacitor shunting the RX input?
>
> vy 73
>
> Andy, M3ABC

no, you can not just consider it a capacitance in the general case. for every infinitesimally small piece of shunt capacitance there is also a piece of series inductance. This is what gives coax its characteristic impedance and velocity factors. for a very short piece (much shorter than a wavelength) you may be able to make a reasonable approximation with a capacitance as the series inductance will be small, but as others have shown even at 1/8th of a wavelength there is considerable effect from the length.

1723. Re: help needed in microstrip antenna!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 17:23:38 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0211010923.219255a5@posting.google.com>
Source record: 132161

hi there,
I meant to ask the title of the book. Anyways thanks for the detail.

bye.

fractenna@aol.com (Fractenna) wrote in message
news:<20021031200704.01187.00002032@mb-mk.aol.com>...
> >hi there,
> > can u be give some details of that book written by Fujimoto and
> >james.
> >
> >thanks in advance
> >
>
> Noooo.....that's YOUR job young scholar.
>
> If you merely want the TITLE, its: 'Mobile Antenna Handbook'.
>
> 73,
> Chip N1IR

1724. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 17:29:50 UTC
From: Wendy <wendy_williams@nospamer.com>
Message-ID: <3DC2BA0B.67C22D58@nospamer.com>
Source record: 132162

Hi,

Having worked with Peace Corps when I was fresh out of college, I can understand the difficulties that many people around the world can experience.

Anyone can print a bunch of qsl cards, even expensive ones, and mail them out. Same thing on the forums, is it my huge antenna farm or a photo of some other station ? We do not know.

That station you and others worked could be just a small station or it could be a large one and funded by some dishonest people.

We may never know.

However, as the old saying goes, a fool and his money are soon parted.

If it was me, I would keep my money.

73 wendy

Matt wrote:

> I received a interesting QSL card today from RA3GS. I sent direct and was
> actually suprised that I got a card back. Anyway, included in the envelope
> was this letter. Goto http://www2.1starnet.com/matt/letter/ and take a look
> at it. I'd like to know what people think about it and if you've received
> such a letter when sending for a QSL card from this station. He's asking
> for money. I got no problem sending him a little cash to help out if this
> is really legit and not some sick and twisted ploy to get money by preying
> upon the generosity of the ham community.. BTW: He sends a very nice
> picture full color QSL card so that just makes me more skeptical that this
> is legit and not a scam. Let me know what you think.
>
> Thanks,
>
> Matt
> W5LL

1725. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 17:42:43 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <btd5su83tuehs5lio18f3jui87gh66a3s9@4ax.com>
Source record: 132164

On Fri, 1 Nov 2002 11:57:49 GMT, Andy Cowley <andy.cowley@uwe.ac.uk>
wrote:

>Reg Edwards wrote:
>>
>> "Andy Cowley" wrote -
>> > Isn't a length of coax in an unmatched situation like that just the same
>> as
>> > a capacitor in parallel with the aerial?
>> ======================
>>
>> No. It's much the same as a capacitor in shunt with the receiver which is
>> only 50 ohms so it doesn't have much effect.
>
>
>The capacitance of coax had always worried me. RG58 is ~ 25 pF/ft so 30 ft. of
>coax is 750 pF and at 30 MHz that's ~7 ohms - surely significant to a 50 ohm
>circuit? Even at 2 MHz its only 100 ohms or so.
>
>Still puzzled.
>
>vy 73
>
>Andy, M3ABC

Hi Andy,

Puzzlement comes from the lack of an answer, and certainly from
knee-jerk responses.

Your capacitances are figured as they should be, and everyone is
either too focused on them, or in denial through other discussion.

What is missing, however, is that you (and especially the others) have
neglected to observe that those incremental, equivalent capacitances
are only available through corresponding incremental, equivalent
inductances. You need to observe them in like manner to what is
quoted above. You then need to combine them into the mesh they
approximate (standard Network Analysis, often discussed within the
first 50 pages of any text).

Even with the appearance of increasing shorting reactance as the cable
gets longer, this is offset by the increasing opening reactance as the
cable gets longer. The combination of the two guarantees that the
cable does not present a short to a source due to this capacitance,
and does not present an open to a source due to this inductance. For

cable, with the initial application of energy, this presents a characteristic Impedance that is entirely resistive (the combination of the two reactance vectors balance and the apparent resistance that comes with losing a signal to a distant load - or in this case, an infinite sink). In the real world, this value is 50 Ohms. This value is immutable through frequency and source/load conditions typically encountered. That is, the capacitance does not reveal itself independently (to offer the prospects of shorting the source) due to standing waves, mismatch (yes, I know its the same thing), or (gasp!) common mode currents, or imbalance (yes, I know its the same thing).

This balance game and initial conditions is found from 1MHz through 10GHz (with only the loss properties of ohmic resistance and dielectric dissipation modifying the results). Beyond these fringes, cable becomes sensitive to other physical features that were ignored as marginal.

73's
Richard Clark, KB7QHC

1726. Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 18:06:07 UTC
From: tcorwinsr@hotmail.com
Message-ID: <cf469840.0211011006.2ec45be7@posting.google.com>
Source record: 132165

Back in the 70s Cushcraft made a single element antenna called a Trik Stik .I also believe MFJ may have also . It could be mounted vertical or horizontal . can anyone give me any information , measurments , etc. Would like to put together someting like this for a SWL reciever . email me at tecorwinsr@msn.com 73s Tom

1727. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 18:24:09 UTC
From: ardujenski@aol.com
Message-ID: <20021101132409.02512.00001923@mb-fv.aol.com>
Source record: 132166

Rick and Larry
Thanks for the feedback. I have read CEBIK on Moxon rectangles and note quite a bit of advantages. The light weight of the multiband HEX BEAM however seems to be offset by the HEAVY PRICE TAG. So tit for tat it appears that performances are about eaqual but which one fits best in your environment may be more the issue

Alan KB7MBI

1728. Re: Antenna Question (Cushcraft Trik-Stik)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 18:31:42 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <iMzw9.65185$C53.3069425@news2.west.cox.net>
Source record: 132167

Assembly and installation sheet at URL:
http://www.wynoradio.com/pictures/antennas/trikstik01.jpg

I used google.com to find it -- try it you'l like it

Also your subject title should have read "Want Cushcraft Trik-Stik Info"
That gives you a better chance of folks opening your message.
Antenna Question is too vague -- I almost didn't open it.

Good Luck

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"Tom" <tcorwinsr@hotmail.com> wrote in message
news:cf469840.0211011006.2ec45be7@posting.google.com...
> Back in the 70s Cushcraft made a single element antenna called a Trik
> Stik .I also believe MFJ may have also . It could be mounted vertical
> or horizontal . can anyone give me any information , measurments ,
> etc. Would like to put together someting like this for a SWL reciever
> . email me at tecorwinsr@msn.com 73s Tom

1729. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 18:34:27 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211011034.2b1a19f7@posting.google.com>
Source record: 132168

Wes Stewart <n7ws@nowhere.com> wrote in message
news:<4c34su04ks1adovf5vrbrtoih7uc5dg4e5@4ax.com>...
> On Thu, 31 Oct 2002 17:22:39 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> [much good stuff snipped]
> |
> |So it looks like a practical limit to the amount of gain you can get by
> |"activating" the outer half of a 20/10 meter trap dipole is around 2 dB,
> |the gain of a plain one wavelength dipole. And to get that, you have to
> |deal with some matching issues. The easiest way to do it is the way
> |thousands of hams now do -- use open wire line and a tuner.
>
> And this almost precludes rotating this mess to take advantage of the
> "gain". I guess it makes some folks feel all warm and fuzzy to know
> that they have "gain" over a dipole, even one fixed in orientaion such
> that the "gain" is in the wrong direction. <g>
>
snip
.
>
> Wes

Wes, you are correct that some radiation occurs in the 'wrong"
direction.
The idea so that gain/efficiency per unit length as high as possible
(the header of this thread by the way and not the Unwin antenna)
is if there is radiation in the Wrong 'direction' it behoves one to
shield
it or to phase it so that it does radiate in the correct direction..
This aproach is very important if one is to achieve a high order of
merit per unit length, an aproach that has not yet gained acceptance
or deemed usefull.
I also agree that rotation is a very important part of 'merit' and
cannot be omitted in any aproach with respect to gain/efficiency per
unit length.
Warm and fuzzy ! How can you say that when I have so many bricks
thrown at me?
Regards
Art

1730. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 18:40:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us5ikd2hdjil54@corp.supernews.com>
Source record: 132069

The Beverage antenna, though quite directional, has low gain because of the loss involved. It's also typically considerably longer than a wavelength. I don't know how the antenna you describe compares, but I suspect it would also be lossy.

My discussion was limited to antennas in space which are one wavelength long (or ground mounted verticals that are a half wavelength). Straight wires of this length inherently radiate broadside to the wire. I didn't consider the case of bent wires of this length, although that would add an interesting dimension to the study. Certainly, there are many configurations you can make with longer wires, with a wide variety of patterns, but they're not relevant to the case at hand.

Don't use ELNEC or any other MININEC-based program to model the antenna if it's lower than about 0.2 wavelength -- actually, recent work indicates that this limit might need to be raised if horizontal wires are much longer than a half wavelength. You'll get results that can be very wrong. Instead, use an NEC-2 based program. Unlike MININEC-based programs, these can accurately model antennas having low horizontal wires.

Roy Lewallen, W7EL

JLB wrote:
> Roy,
>
> When reading your post 'between the lines', I believe the theoretical
> antennas you are talking about were meant to radiate broadside to the
> wire.
>
> There is another type of antenna that does not have that constraint,
> that I find of interest. If you have several hundred feet to play
> with it is relatively easy to put one up, but it is not rotatable and
> can have a relatively sharp pattern at higher frequencies.
>
> What I am thinking about is called a type of 'traveling wave antenna'.
> It is similar to a beverage but operates more on the principles of a
> long wire. In fact, I have also seen it called a 'terminated long
> wire'. This consists of literaly a long wire fed at one end, and the
> other end connected to ground through a resistive load of a few
> hundred ohms. The height of the wire above ground, unlike a Beverage,
> is 20 or 30 feet in the design I have seen.
>
> There will be a constant uniform current distribution along the wire
> across a broad range of frequencies. According to Kraus the radiation
> pattern is conical shape, with the angle of the cone from broadside

> increasing as the wire gets longer. The limit seems to be about 60 to
> 70 degrees from broad side for a very long wire. Of course gain
> increases as the wire gets longer. When I say 'gets longer', I mean
> in terms of wavelength, so you can either physically make the wire
> longer or increase your frequency.
>
> When I get a chance I will model it in Elnec demo and see what it can
> do.
>
> Jim
> N8EE

1731. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 18:42:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us5ip1jh9uopb2@corp.supernews.com>
Source record: 132070

Art, I suspect that you'd get more attention for your point of view if
you could tell us just how much extra gain you achieve for all your trouble.

Roy Lewallen, W7EL

Art Unwin KB9MZ wrote:
>
> Roy,
> What you are quoting I.E historic attempts to gat constant current is
> well
> known. The CCD also attempted to do the same thing.
> I also agree that such actions are not the best way to go. What I did
> is to look at things from a efficiengy/length point of view as
> follows.
> Looking at the current curve of a half wave dipole it is obvious that
> the highest current is at the center and zero at it ends. In looking
> for maximum efficiency/per unit length I chopped off the ends where
> length produced minimal gain. Methods of doing that are well known,
> one only has to decide what area
> under the current curve they are willing give up in the pursuit of
> efficiency.
> If one then superimposed TWO modified, chopped short current curves
> on a half wave length it takes on the shape of a 'quasi' collinear
> with a center space
> showing empty space or minimal radiation. To be able to make this
> truly
> collinear one has to put a phase mechanism at the center so the
> repeating current curves are on the same plane.This I did thus leaving
> two high efficiency shortened curves at each end where the maximum
> current peaks are at a distance from each other to produce a collinear
> array.
> The question in the past has been does it produce more gain ?
> Worth while gain was stated to be 1 db or more and my main detractor
> rediculed the idea that such an antenna could produce gains.
> As no one on this group disagreed with that position (inluding the
> doctor)
> I then became a target in a similr fashion as the fractal,e/h antenna
> or a particular commercial antenna manufacturer and unfortunatly it
> brought out the worst of me in retaliation. Never the less, my design
> does what I say it does,
> I have shared it with all and over the years have placed a page tho
> poorly done,
> on the web. I am holding nothing back,done modeling that show db gain
> where
> detractors would only accept dbi modeeling. I might add that with many

> good and experienced modellers in the group it would be a futile
> attempt to counter
> suggestion that I made programming errors as I was not using EZNEC
> programs
> leaving me a tough row to how. All of the above is basically what I
> gave on the last go around on the thread remarking on collinear gains
> e.t.c a couple months ago as you well know.
> I ofcourse still hold you in high regard but would also point out that
> one poster pointed out another old book that did not point to the
> notion in
> disfavour.
>
> Regards
> Art Unwin KB9MZ......XG.
> was stated as one db or more

1732. Re: Free Space analysis useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 18:45:33 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DC2CBCD.904AC042@netscape.net>
Source record: 132071

As Roy said, its time to cut some aluminum (well actually, its already done). The beam is going to be mounted on a roof top tower (10' high) without guy wires. The house wiring will be just over 1/4 wavelength away (below). Think I better take all those aluminum pieces for antenna's and coax spools out of the attic too...

Scott.

SeeSignature@below.com wrote:

> If you have the segment capacity, you might want to include models of
> all major nearby conductors in your antenna model - in addition to the
> house wiring you mentioned, you probably have power lines, metal yard
> buildings, metal fences and other antennas close enough to distort the
> patterns at very low levels. Perhaps even the tower that supports it.
>
> Reflection or scattering from these things will probably make a
> difference at those levels. And their effect will vary as you rotate
> the beam.
>
> "BUILD", included in the freeware 4NEC2 package, can generate
> approximate models of metal buildings, roofs, etc, which you could
> then import as a NEC file into your NWP model.
>
> Jerry W4UK

1733. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 18:53:34 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211011053.1ebb4d35@posting.google.com>
Source record: 132072

"Larry Phipps" <larry@telepostinc.com> wrote in message
news:<VFmw9.3222$z5.2309899@newssvr28.news.prodigy.com>...
> I modelled one awhile back...as I recall it was a pretty good performer. A
> better performer though if you only need one band is the Moxon rectangle
> with better F/B than the Hex...or than a 2 el Yagi for that matter. I was
> not able to get a decent model of a multi-band Moxon however.
>
> L.B. Cebik has a comparison on his website that is good
> reading...http://www.cebik.com/4.html ...as is most of the stuff on his
> site.
>
> --
> Larry N8LP
>

Larry, the manufacturer of the Hex beam was heavily hit by this group.
I would say it was as heavy as that delivered on the subject of
E/H antennas tho it did give some respite for Fractals.This is many
years ago
and the owner does not now frequent this group. At the same time I was
discussing my design and ofcourse got many bricks thrown at me so I
now limit the subject to once per year. I thought the hex beam was
good and the owner did not get the credit he deserved. That is the
nature of this group to 'new'
or 'differnt' ideas so you have to accept the good with the bad.
Art

1734. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 19:13:43 UTC
From: Bob Nielsen <nielsen@remove_this.oz.net>
Message-ID: <apujp7iin0@216.39.144.81>
Source record: 132073

It's probably more legit than much of the email we all receive.

Back in the mid-1950's I got a letter with a QSL from VR6AC on
Pitcairn Island asking if I could send him some radio parts.
Considering the lack of electronic parts stores in the area, I thought
that was not an unreasonable request. I didn't have any inventory of
parts so I passed it on to the local "candy store", but don't know if
they responded.

Bob, N7XY

On Fri, 1 Nov 2002 09:21:21 -0600, Matt wrote:
> He only asked for 5 or 10 dollars. I got no problem with sending him some
> money. I just wanted to see if anyone else has received such a letter like
> this before.
>
> Thanks and 73s
>
> Matt
> W5LL
>
> "Andy Cowley" <andy.cowley@uwe.ac.uk> wrote in message
> news:3DC263AA.AA2FD21F@uwe.ac.uk...
>> Matt wrote:
>> >
>> > I received a interesting QSL card today from RA3GS. I sent direct and
> was
>> > actually suprised that I got a card back. Anyway, included in the
> envelope
>> > was this letter. Goto http://www2.1starnet.com/matt/letter/ and take a
> look
>> > at it. I'd like to know what people think about it and if you've
> received
>> > such a letter when sending for a QSL card from this station. He's
> asking
>> > for money. I got no problem sending him a little cash to help out if
> this
>> > is really legit and not some sick and twisted ploy to get money by
> preying
>> > upon the generosity of the ham community.. BTW: He sends a very nice
>> > picture full color QSL card so that just makes me more skeptical that
> this
>> > is legit and not a scam. Let me know what you think.
>> >
>> > Thanks,

>> >
>> > Matt
>> > W5LL
>>
>> I may be doing the guy an injustice but check out his qrz.com picture.
> That's
>> a big mast/antenna plus a lot of gear. None of that was free. Still, times
> are
>> very hard in the former Soviet Union, so maybe he does need help. He's
> certainly
>> a lot less well off than most hams in the west. I'd say send him the money
> if it
>> doesn't hurt you, but don't feel guilty if you don't. I don't think he'll
> spend
>> it on booze or drugs like most panhandlers would but maybe on a new rig.
> ;-)
>>
>> just my tuppence worth
>>
>> vy 73
>>
>> Andy, M3ABC
>
>

--
Bob Nielsen, N7XY n7xy@n7xy.net
Bainbridge Island, WA
IOTA NA-065, USI WA-028S

1735. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 19:22:55 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <jwAw9.39128$ku2.2004712@twister.southeast.rr.com>
Source record: 132074

Yeah, it could be legit. Trouble is, giving money will start a trend.

Alan
WN4HOG
--
Windsurfing Club: http://www.ibscc.org

"Bob Nielsen" <nielsen@remove_this.oz.net> wrote in message
news:apujp7iin0@216.39.144.81...
> It's probably more legit than much of the email we all receive.
>
> Back in the mid-1950's I got a letter with a QSL from VR6AC on
> Pitcairn Island asking if I could send him some radio parts.
> Considering the lack of electronic parts stores in the area, I thought
> that was not an unreasonable request. I didn't have any inventory of
> parts so I passed it on to the local "candy store", but don't know if
> they responded.
>
> Bob, N7XY
>
> On Fri, 1 Nov 2002 09:21:21 -0600, Matt wrote:
> > He only asked for 5 or 10 dollars. I got no problem with sending him
some
> > money. I just wanted to see if anyone else has received such a letter
like
> > this before.
> >
> > Thanks and 73s
> >
> > Matt
> > W5LL
> >
> > "Andy Cowley" <andy.cowley@uwe.ac.uk> wrote in message
> > news:3DC263AA.AA2FD21F@uwe.ac.uk...
> >> Matt wrote:
> >> >
> >> > I received a interesting QSL card today from RA3GS. I sent direct
and
> > was
> >> > actually suprised that I got a card back. Anyway, included in the
> > envelope
> >> > was this letter. Goto http://www2.1starnet.com/matt/letter/ and take
a
> > look
> >> > at it. I'd like to know what people think about it and if you've

> > received
> >> > such a letter when sending for a QSL card from this station. He's
> > asking
> >> > for money. I got no problem sending him a little cash to help out if
> > this
> >> > is really legit and not some sick and twisted ploy to get money by
> > preying
> >> > upon the generosity of the ham community.. BTW: He sends a very
nice
> >> > picture full color QSL card so that just makes me more skeptical that
> > this
> >> > is legit and not a scam. Let me know what you think.
> >> >
> >> > Thanks,
> >> >
> >> > Matt
> >> > W5LL
> >>
> >> I may be doing the guy an injustice but check out his qrz.com picture.
> > That's
> >> a big mast/antenna plus a lot of gear. None of that was free. Still,
times
> > are
> >> very hard in the former Soviet Union, so maybe he does need help. He's
> > certainly
> >> a lot less well off than most hams in the west. I'd say send him the
money
> > if it
> >> doesn't hurt you, but don't feel guilty if you don't. I don't think
he'll
> > spend
> >> it on booze or drugs like most panhandlers would but maybe on a new
rig.
> > ;-)
> >>
> >> just my tuppence worth
> >>
> >> vy 73
> >>
> >> Andy, M3ABC
> >
> >
>
>
> --
> Bob Nielsen, N7XY n7xy@n7xy.net
> Bainbridge Island, WA
> IOTA NA-065, USI WA-028S

1736. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 19:27:40 UTC
From: richardharrison@webtv.net
Message-ID: <3878-3DC2D5AC-53@storefull-2313.public.lawson.webtv.net>
Source record: 132077

Andy Cowley wrote:
"Doesn`t the coax look like a capacitor shunting the RX input?"

Depends on coax length in terms of wavelength. The center conductor and inner surface of the outer shield are tightly coupled. There is a discontinuity at the unconnected end of the coax. That is, only the inner conductor connects to the aerial. There will be displacement current between the aerial and the outer surface of the coax shield. There will also be conduction looping around the shield`s inner and outer surfaces.

The discontinuity at one end of the coax will cause reflections. Is the coax so short that phase shift along its length is not significant? If the coax is not so short, Andy may be better off with open-wire as Zepp users are fond of, or a low capacitance shelded cable most often used wih autmobile medium wave receivers.

Best regards, Richard Harrison, KB5WZI

1737. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 19:34:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us5lqvl111iv93@corp.supernews.com>
Source record: 132075

I encourage anyone who feels that the Hex Beam (or any other antenna) was treated unfairly by people on this newsgroup to go to groups.google.com and do a search on "hex beam" for this newsgroup. What you'll find is generally positive comments about the beam's small turning circle and respectable performance for its compact size and weight.

You'll also find people commenting that they don't believe the claim that the manufacturer was making that the Hex Beam exhibits gain of 10 dB relative to a dipole. This has nothing to do with whether the Hex Beam represents a "new" or "different" idea -- it's simply that the manufacturer has failed to convincingly demonstrate, either through measurements at a certified test range or by modeling, that his antenna's performance greatly exceeds what's possible for such an antenna as predicted by theory which has been shown to be good for the past couple of hundred years. I hope that the people on this newsgroup continue to be skeptical about claims for performance that defy all known physical laws -- I for one certainly will be. Perhaps the purveyors of such claims will find more fawning acceptance at alt.magic.

Roy Lewallen, W7EL

Art Unwin KB9MZ wrote:
>
> Larry, the manufacturer of the Hex beam was heavily hit by this group.
> I would say it was as heavy as that delivered on the subject of
> E/H antennas tho it did give some respite for Fractals.This is many
> years ago
> and the owner does not now frequent this group. At the same time I was
> discussing my design and ofcourse got many bricks thrown at me so I
> now limit the subject to once per year. I thought the hex beam was
> good and the owner did not get the credit he deserved. That is the
> nature of this group to 'new'
> or 'differnt' ideas so you have to accept the good with the bad.
> Art

1738. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 19:39:05 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apul8n$8kb$1@venus.btinternet.com>
Source record: 132076

"Roy Lewallen"
> Reg Edwards wrote:
> > (PS. Switcher power supply ferrites should NOT be used for HF wideband
> > transformers. . .
==========

> Why is this? Low frequency ferrites (e.g. Fair-Rite 70 series or type
> 43) are commonly used for HF wideband transformers, except for very high
> power levels where heating might be a problem.

==========

I am entirely unfamiliar with Fair-Rite and their 70 series materials. But
I don't consider that to be any disadvantage.

But the answer to your question is obvious! When over-heating is a problem
at HF the losses must be too high.

==========

> The two switching
> supplies I've designed for production have used ferrites which would be
> very suitable for HF wideband transformers.

==========

But have you ever designed equipment or specified their use, for example, at
HF at high power? Whatever you mean by high power!

==========

What ferrite characteristics
> are you thinking of that would make some unsuitable?

==========

It is "Hysteresis Loss", watts per cycle, which increases directly with
frequency. These days ferrite manufacturers seem to state performance
characteristics in wierd units which nobody understands and which circuit
designers simply ignore.

There's a great deal of difference between 30 KHz and 30 MHz.

Regarding use of ferrites there is no 'design procedure' left in the job. So
called designers, just like everybody else, just use the particular pretty
coloured ferrite rings which other so called designers have found 'work' in
similar applications. And if it 'works' then that particular colour finds
its way into the mass-production process. If a colour doesn't work then the
circuit designer tries another colour or 'mix' which DOES work at the

frequencies of interest.

Circuit designers can find all the mixes and colours and dimensions for particular applications in such reference sources as ARRL and RSGB constructio handbooks. Manufacturer's data is redundent. It has served its purpose. It is necessary only that manufacturers don't change the 'mix'.

I must make it plain I have no complaint whatsoever about this sort of design procedure. It would make no difference if I did. It is obviously the most economical way of designing equipment which incorporates ferrites. The universe is ruled by Economics.

==========

But to ensure the above-described very sensible practice does not lead one astray when projecting knowledge into less certain regions it should be said that ferrite core loss is only half the picture. If there's no significant flux in the core then there's no significant loss in it.

One type of HF transformer is a misnomer. The core loss due to hysteresis is largely irrelevant and use of materials having low loss only at VLF is acceptable.

For example, take the common-or-garden 4-to-1 impedance-ratio BALUN. It does indeed behave as a transformer of sorts up to a certain cut-off frequency. There is sensibly no core loss because, over the very wide operating frequency range, there is sensibly no flux in the core. The winding consists of a relatively few turns of small-diameter coaxial cable. Or it may consist of a winding of something like twin speaker wire (which I have occasionally recommended because it has even lower loss.).

This short length of transmission line carries the whole of the Tx power to the antenna. The two wires carry equal and opposite currents. The resulting flux in the core is negligible. Result - neglible core loss!

Construction of such 'transformers' has been described in a small book by an American amateur whos name I forget. But he does not explain very well how they work. So far as us amateurs are concerned this doesn't matter. Essentially the loss occurs only in wire resistance - the same loss which occurs in the very short length of line used for the winding.

At the low frequency end of the frequency range the mode of operation changes. It behaves as an inefficient choke. The pair of line currents become unequal, the core flux and hysterisis loss increase. But who cares if that occurs below 1.8 MHz.

By increasing the number of turns the ampere-turns and core flux in the choke decrease because the choke impedance is proportional to the square of the nunber of turns but the voltage available across the choke to drive current through it tends to remain constant. The available voltage depends only on the power output from the transmitter when correctly loaded. So the LF response improves with the number of turns.

The high frequency response of a 4-to-1 balun fails completely when the length of line on the 'transformer' is 1/4-wavelength or more. Keep it to 1/10th-wavelength, preferably less. Even then the transformation ratio suffers at the VHF end. This not a matter of great consequence - it need be only the right ball park.

For numerically interested readers, to analyse insertion-loss performance of a 4-to-1 balun download program BALUN4 from website below. The extrordinary low loss at HF using VLF ferrites is accurately estimated. Compare with the measured values obtained by the book author whose name and call-sign unfortunately I cannot remember.

Baluns could not have been invented until ferrites had first been inverted (I think) in Holland during the starvation which occurred there during WW2. Our friends the Japanese physicists were also in there somewhere. Please correct if needed.

To irritate Roy, and that other person who knows nothing except about Italian clowns, the program is not zipped up, can be downloaded in a few seconds, free to USA citizens and can be run immediately without a 3-week college training course. The only numerical value needed from ferrite manufacturers' data sheets is material permeabilty - if they feel happy to disclose it. ;o)

Well, we've come a long way from "Low budget impedance transformers". I hope you have enjoyed the entertainment. There's more ways than way one of getting kicks out of Amateur Radio. Long may the pastime survive!

I've just come to the end of a bottle of Californian Ruby Cabernet. The shops are shut. Good for the arteries I'm told. I still love Yanks. My 4-by 1.5 volt keyer battery has now gone flat.

Hic !

Don't forget BALUN4
==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

1739. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 19:56:32 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <0cn5suoe2llbdc35cvv2si7rb2olmjllra@4ax.com>
Source record: 132078

On Fri, 1 Nov 2002 09:21:21 -0600, "Matt" <mattpatt@1starnet.com>
wrote:

>He only asked for 5 or 10 dollars. I got no problem with sending him some
>money. I just wanted to see if anyone else has received such a letter like
>this before.

"WIll QSL for food?"

1740. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 20:19:57 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <rhn5su84cdcmgjtkbkdnr8kdmpmk83ritf@4ax.com>
Source record: 132079

On Fri, 01 Nov 2002 10:42:41 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Art, I suspect that you'd get more attention for your point of view if
>you could tell us just how much extra gain you achieve for all your trouble.
>
>Roy Lewallen, W7EL

Hi All,

The LAST time around, it was less than 1dB (which was the same amount
available to Cecil's simpler dipole and simpler method of tuning).
Art did not dispute this figure, and instead offered to beg inability,
incapacity, or some other excuse (too emotionally drained perhaps) why
he couldn't do this simple chore.

Seems that when Art recovers (from whatever) we begin again as if the
last discussion never took place (and no lesson learned) and we run
through the obvious problems once again to find Art flagging from
inability, incapacity, or some other excuse (too emotionally drained
perhaps) why he couldn't do this simple chore.

As a variation upon this theme, Art sometimes suggests it is our
fault that the numbers do not do better. He has none to offer, and
certainly no better method is suggested, "just take my word for it."

It is more than apparent that if Art were simply to start at the last
point left, and answer the question quoted above ("the world
wonders"); that this would all be over as an exercise in noting the
obvious. For both Art and the eh/cfa/fractal crowd, an answer is an
end - better to keep everyone guessing - or demanding they prove him
wrong which again requires that same question answered... see a
pattern?

73's
Richard Clark, KB7QHC

1741. LF Photos of Verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 21:28:40 UTC
From: Steve H Gordon <af4spilot@directvinternet.com>
Message-ID: <3dc2f1fe$1_1@nopics.sjc>
Source record: 132080

Trying to persuade a homeowners association to let me put up a vertical.
Looking for some nice photographs. Email is ok. Thanks.

AF4S

1742. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 21:44:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us5tefpib78rd0@corp.supernews.com>
Source record: 132081

Reg Edwards wrote:
>
> I am entirely unfamiliar with Fair-Rite and their 70 series materials. But
> I don't consider that to be any disadvantage.

I'm sure you don't, since you could easily become informed if you were interested. Their data are on the web and easy to find. I tend to use Fair-Rite as an example, because Amidon has long been a major supplier to amateurs, and they have sold Fair-Rite ferrites and use their ferrite designations.

> But the answer to your question is obvious! When over-heating is a problem
> at HF the losses must be too high.

I agree entirely. But don't confuse cause and effect. The losses are too high by definition if the transformer is overheating. It's the overheating that's the problem, not the loss.

But overheating isn't a problem unless considerable power is involved. That's hardly a reason to proscribe the use of low frequency ferrites for wideband transformers for all applications. You'll find these materials to be used almost exclusively for HF broadband applications in a wide range of products, from transmitters and receivers to spectrum analyzers and other test equipment.

The fact that a transformer can get hot at a high power level doesn't necessarily mean that the loss is otherwise unacceptable. For example, if you have a transformer with 0.5 dB loss -- acceptable for nearly any application -- and run a kW through it, it'll dissipate 100 watts. That'll cause overheating unless the transformer is physically pretty big. At 1 kW, the loss is too high because the transformer gets too hot. At 10 watts, the loss is perfectly acceptable.

Advising people never to use low frequency ferrites for HF wideband transformers because they can overheat when high power is applied is like advising them never to use cores smaller than a foot in diameter, or resistors with anything less than 100 watt dissipation rating. The professionals use these materials for this application -- there's no reason for amateurs not to.

> ==
>
>
>>The two switching
>>supplies I've designed for production have used ferrites which would be
>>very suitable for HF wideband transformers.

>
>
> ==
>
> But have you ever designed equipment or specified their use, for example, at
> HF at high power? Whatever you mean by high power!

Really, I mean enough that overheating becomes a problem. I routinely
use a ferrite core with a little over one inch OD for a balun, and run
up to 300 watts through it. So for that size core, I'd call "high power"
something over 300 watts. There are a lot of applications that don't
involve this much power.

> ==
>
> What ferrite characteristics
>
>>are you thinking of that would make some unsuitable?
>
>
> ==
>
> It is "Hysteresis Loss", watts per cycle, which increases directly with
> frequency. These days ferrite manufacturers seem to state performance
> characteristics in wierd units which nobody understands and which circuit
> designers simply ignore.

Chuckle. You obviously hang out with a different bunch of design
engineers than I do.

You might take a few moments and drop by the Fair-Rite web site or the
competing site of your choice. You'll find that the resistance of a
winding on a low frequency core doesn't increase linearly with frequency
as you say, at least over the HF-VHF range. It tends to remain fairly
constant with frequency. (I trust that your program reflects this.)

> There's a great deal of difference between 30 KHz and 30 MHz.

Yes, indeed. For a given applied voltage, the flux density is inversely
proportional to frequency. So a core that can easily saturate at 30 kHz
will be nowhere near saturation at 30 MHz, given the same voltage across
a winding. It's the "hysteresis loss" that gives rise to the resistive
nature of the impedance at HF. There's nothing wrong with it.

You won't be able to get a low frequency ferrite core anywhere near
saturation at HF -- it'll go up in flames at a flux level far below
saturation.

>. . .

> Hic !

Roy Lewallen, W7EL

1743. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 21:59:50 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC2F956.A1D62C07@ieee.org>
Source record: 132082

Sylvan Butler wrote:
>
> On Wed, 30 Oct 2002 17:48:01 -0600, CAM <Cecil.A.Moore@ieee.org> wrote:
> > Texas has a corner on the helium market. :-) They wouldn't give any
> > to the Nazis and that's why the Hindenburg blew up.
>
> The Hindenburg did not "blow up", it burned. It would have burned
> had it been helium, because it was the envelope burning before the
> gas caught fire.

Somehow, I get the impression that the hydrogen assisted the burning process. Helium, being inert, would have helped keep the oxygen away from the blaze. Too bad Hitler wasn't on that dirigible.
--
cheers, CAM http://www.qsl.net/w5dxp

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1744. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 22:07:27 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC2FB1F.AB06C72C@ieee.org>
Source record: 132083

Dave Platt wrote:
> I just wish I could find a really convenient way to switch the
> additional balanced feedline sections in and out... my "shack" is a
> corner of one bedroom, and there isn't really a convenient indoor
> location for the necessary collection of feedline segments.

My present method with an ordinary house is to mount a 1/4" plexiglas plane in the shack window. The knife switches are mounted on the inside and the 450 ohm ladder-line vertical loops are mounted on the outside about six inches apart. It works extremely well here in Texas where the temperature rarely gets below freezing. The switches are in the plane of the screen so I can pull the window down if it gets extremely hot or cold.
--
cheers, CAM http://www.qsl.net/w5dxp

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1745. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 22:20:07 UTC
From: Matt <mattpatt@1starnet.com>
Message-ID: <dqqcnQFUgOJ0YF-gXTWcoA@1starnet.com>
Source record: 132084

My problem is not giving the money. It's making sure it gets to the
recipient! This is Russia we are talking about here. Alot of dishonest
postal workers.

"Alan" <alannc44@{nospam}ix.netcom.com> wrote in message
news:jwAw9.39128$ku2.2004712@twister.southeast.rr.com...
> Yeah, it could be legit. Trouble is, giving money will start a trend.
>
> Alan
> WN4HOG
> --
> Windsurfing Club: http://www.ibscc.org
>
>
> "Bob Nielsen" <nielsen@remove_this.oz.net> wrote in message
> news:apujp7iin0@216.39.144.81...
> > It's probably more legit than much of the email we all receive.
> >
> > Back in the mid-1950's I got a letter with a QSL from VR6AC on
> > Pitcairn Island asking if I could send him some radio parts.
> > Considering the lack of electronic parts stores in the area, I thought
> > that was not an unreasonable request. I didn't have any inventory of
> > parts so I passed it on to the local "candy store", but don't know if
> > they responded.
> >
> > Bob, N7XY
> >
> > On Fri, 1 Nov 2002 09:21:21 -0600, Matt wrote:
> > > He only asked for 5 or 10 dollars. I got no problem with sending him
> some
> > > money. I just wanted to see if anyone else has received such a letter
> like
> > > this before.
> > >
> > > Thanks and 73s
> > >
> > > Matt
> > > W5LL
> > >
> > > "Andy Cowley" <andy.cowley@uwe.ac.uk> wrote in message
> > > news:3DC263AA.AA2FD21F@uwe.ac.uk...
> > >> Matt wrote:
> > >> >
> > >> > I received a interesting QSL card today from RA3GS. I sent direct

> and
> > > was
> > >> > actually suprised that I got a card back. Anyway, included in the
> > > envelope
> > >> > was this letter. Goto http://www2.1starnet.com/matt/letter/ and
take
> a
> > > look
> > >> > at it. I'd like to know what people think about it and if you've
> > > received
> > >> > such a letter when sending for a QSL card from this station. He's
> > > asking
> > >> > for money. I got no problem sending him a little cash to help out
if
> > > this
> > >> > is really legit and not some sick and twisted ploy to get money by
> > > preying
> > >> > upon the generosity of the ham community.. BTW: He sends a very
> nice
> > >> > picture full color QSL card so that just makes me more skeptical
that
> > > this
> > >> > is legit and not a scam. Let me know what you think.
> > >> >
> > >> > Thanks,
> > >> >
> > >> > Matt
> > >> > W5LL
> > >>
> > >> I may be doing the guy an injustice but check out his qrz.com
picture.
> > > That's
> > >> a big mast/antenna plus a lot of gear. None of that was free. Still,
> times
> > > are
> > >> very hard in the former Soviet Union, so maybe he does need help.
He's
> > > certainly
> > >> a lot less well off than most hams in the west. I'd say send him the
> money
> > > if it
> > >> doesn't hurt you, but don't feel guilty if you don't. I don't think
> he'll
> > > spend
> > >> it on booze or drugs like most panhandlers would but maybe on a new
> rig.
> > > ;-)
> > >>
> > >> just my tuppence worth
> > >>

> > >> vy 73
> > >>
> > >> Andy, M3ABC
> > >
> > >
> >
> >
> > --
> > Bob Nielsen, N7XY n7xy@n7xy.net
> > Bainbridge Island, WA
> > IOTA NA-065, USI WA-028S
>
>

1746. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 22:25:30 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC2FF5A.F28D2DA4@ieee.org>
Source record: 132085

Richard Harrison wrote:
> The output resistance of an efficient r-f amplifier is efficient beause
> much of its output resistance consists of lossless resistance. Thus it
> can use this lossless resistance in making a match to its load without
> condemning the amplifier to a maximum of 50% efficiency.

Unfortunately, the conjugate matching theorem only applies to linear systems and we cannot achieve more than 50% efficiency without non-linear amplifier sections, e.g. AB amplifiers. Each section in a push-pull AB amplifier is non-linear over part of the range. Can two non-linear amplifier sections be combined to obtain a linear amplifier? Is 99% linear combined with 1% non-linear, linear or non-linear? :-) Isn't that like adding two irrational numbers and obtaining a rational number? :-) I have long suspected that the lossless resistance seen looking back into an amplifier is the load line. If so, virtually all low impedance sources are near a conjugate match.
--
cheers, CAM http://www.qsl.net/w5dxp

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1747. Re: What kind of cap should I chose?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 22:34:38 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC3017E.9107B105@ieee.org>
Source record: 132086

Mmsya wrote:
> I need help please. I am building a very simple transmitter. I have a 160 uH
> coilin in the Drain of 2n7000 (N type MOSFET) and a cap inparallel with the
> coil and the Source to ground. The Gate is pulse with an I/O of the
> microcontroller. Let's say that I tune the resonance frequenct at 38KHz. This
> means I have to choose 110 nF cap (F=1/2.0* PI*SQRT(LC)). I tried two different
> cap I received two different signal base on the material type that I tested.
> Is it an standard cap material they select for transmitter type of circuitery?
> If yes which kind is the best, please?

John, in my humble opinion, you just cannot go wrong with a Texas Aggie cap.

Seriously, ceramic caps, for instance, are intended for bypass use where the
DC component never allows the dielectric to be exposed to a reverse voltage.
I tried to use disc ceramic caps in my antenna tuner. They literally burned up.
Someone told me that the ceramic dielectric actually physically moves when exposed
to pure RF.

For RF capacitors with no DC involved, mica, silver mica, air variable, doorknob,
vacuum variable, etc. are to be used. Electrolytics and ceramics tend to malfunction
unless they are biased with DC.
--
cheers, CAM http://www.qsl.net/w5dxp

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1748. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 22:39:44 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC302B0.1DCBE5FC@ieee.org>
Source record: 132087

Matt wrote:
> BTW: He sends a very nice
> picture full color QSL card so that just makes me more skeptical that this
> is legit and not a scam. Let me know what you think.

If he has a modest fixed income, the more expensive QSL cards would make it
more legit, wouldn't it?
--
cheers, CAM http://www.qsl.net/w5dxp

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1749. Re: A Source for Large (i.e., Long) Telescopic Whip Elements?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 22:41:33 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC3031D.4C9924EF@ieee.org>
Source record: 132088

Will White wrote:
>
> I am in search of long telescopic whip antenna elements for a portable
> loaded HF dipole I am making. The largest I have found thus far are 72"
> extended, and I need 96-108", about .25" diameter, not more than .50"
> fattest section, with a threaded or punched base for mounting. I have
> tried Rat Shack and the usual catalog suppliers (Mouser, Fair Radio,
> Ocean State, AES) without success. Does anyone know of a mail-order
> source for such parts?

The fact that such is not available might suggest something about its
feasibility?
--
cheers, CAM http://www.qsl.net/w5dxp

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1750. Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 22:44:16 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92B9AB43D2347michalkunyahoocom@128.233.3.7>
Source record: 132089

Could someone explain to me what does "gain" mean? Is it how much antenna amplifies the signal that it receives?

1751. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 22:46:14 UTC
From: k1bqt@aol.com
Message-ID: <20021101174614.23432.00000886@mb-cr.aol.com>
Source record: 132090

I've heard the lip-flap about the hex beating up on much larger Yagis. However, big beams with sharper patterns can exhibit fairly deep nulls at some elevation angles--while "low-gainers" tend to have broader and smoother patterns. This dynamic might easily fool the unwary and cause 'em to think there's magic afoot.

Rick K1BQT

1752. Help identifying vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 22:52:39 UTC
From: - Q - <process@gamebox.net>
Message-ID: <pan.2002.11.01.16.52.35.937612.453@gamebox.net>
Source record: 132091

Hi,

Can anyone help me identify brand/model of this antenna I came across? I was told it was a HyGain vertical, 10-40 m, however it doesn't look much like the 10-40m HyGains on the website. 3 coils, and it does seem to tune at around 10/15/20/40 m

If anyone could point me to a manual that's got tuning measurements, even better...

Photos of the thing are at
http://www.qsl.net/ti2dll/antenna.html

73

--
TI2DLL
process@gamebox.net

1753. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 22:56:06 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC30686.643AB18@ieee.org>
Source record: 132092

Art Unwin KB9MZ wrote:
> I thought the hex beam was
> good and the owner did not get the credit he deserved.

He didn't say his hex beam was good, Art. Nobody would have
disagreed with that. He said, in so many words, that his hex
beam was better than sex. :-) The hex beam is cute and performs
well but it is no better than other similar beams (and certainly
does not possess supernatural powers). I seriously doubt that
anyone can tell the difference during normal operation between
a hex beam and the decades old X-Beam.
--
cheers, CAM http://www.qsl.net/w5dxp

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1754. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 23:03:27 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC3083F.73489DBD@ieee.org>
Source record: 132093

Reg Edwards wrote:
> I've just come to the end of a bottle of Californian Ruby Cabernet. The
> shops are shut. Good for the arteries I'm told.

I buy my California Kabeerneigh Sovenyoung in 5 liter boxes, Reg.
I didn't understand all of your posting. Could you repeat it in
American? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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1755. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 23:11:55 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC30A3B.E7CD6EDE@ieee.org>
Source record: 132094

Matt wrote:
> My problem is not giving the money. It's making sure it gets to the
> recipient! This is Russia we are talking about here. Alot of dishonest
> postal workers.

More dishonest than going "postal"? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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1756. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 23:16:24 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC30B48.499876AF@ieee.org>
Source record: 132095

Michalkun wrote:
> Could someone explain to me what does "gain" mean? Is it how much antenna
> amplifies the signal that it receives?

Gain means that some photons are allowed to materialize in a certain region
at the expense of not being allowed to materialize in another region. Aren't
you glad you asked? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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1757. Re: Help identifying vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 23:18:14 UTC
From: Eskay <Nospamve3jua@rac.ca>
Message-ID: <3DC30BB5.B1EFF85@rac.ca>
Source record: 132096

Cushcraft AV series?
Eskay,,,VE3JUA..

- Q - wrote:

> Hi,
>
> Can anyone help me identify brand/model of this antenna I came across? I
> was told it was a HyGain vertical, 10-40 m, however it doesn't look much
> like the 10-40m HyGains on the website. 3 coils, and it does seem to tune
> at around 10/15/20/40 m
>
> If anyone could point me to a manual that's got tuning measurements,
> even better...
>
> Photos of the thing are at
> http://www.qsl.net/ti2dll/antenna.html
>
> 73
>
> --
> TI2DLL
> process@gamebox.net

1758. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 23:25:16 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DC30D53.8CDDF7FF@bellatlantic.net>
Source record: 132097

'Doc wrote:
>
> ehsjr,
> You haven't discovered the trick of reading Art's
> post yet. First you have to decode what he means
> when he says 'tribander'. An 'Art' tribander isn't
> a three band yagi like you might suspect. In this
> case, it happens to be a three band rotatable dipole.
> And he seems to think that removing the traps and
> using the 'full length' of the dipole on all three
> bands should be not only possible, but 'better'.
> The 'decoding' process isn't too difficult, it
> just takes time (or in my case, someone told me),
> but is essential for understanding...
> 'Doc

Thanks! Now maybe I'll have a chance to understand
what he has in mind.

1759. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 23:28:11 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC30E0B.A5CFB894@ieee.org>
Source record: 132098

Rick Littlefield wrote:
> I've heard the lip-flap about the hex beating up on much larger Yagis. However,
> big beams with sharper patterns can exhibit fairly deep nulls at some elevation
> angles--while "low-gainers" tend to have broader and smoother patterns. This
> dynamic might easily fool the unwary and cause 'em to think there's magic
> afoot.

A dummy load might beat a 20 element beam in a certain direction and elevation.
It is human nature to report only the examples that enhance one's position (and/or
one's pocketbook). Maybe we need to launch a new newsgroup - How about
rec.radio.amateur.antenna.wetdream?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1760. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 23:36:07 UTC
From: tdonaly@aol.com
Message-ID: <20021101183607.05859.00002036@mb-ms.aol.com>
Source record: 132099

>
>On Fri, 1 Nov 2002 00:00:57 -0600, "Matt" <mattpatt@1starnet.com>
>wrote:
>
>|I received a interesting QSL card today from RA3GS. I sent direct and was
>|actually suprised that I got a card back. Anyway, included in the envelope
>|was this letter. Goto http://www2.1starnet.com/matt/letter/ and take a look
>|at it. I'd like to know what people think about it and if you've received
>|such a letter when sending for a QSL card from this station. He's asking
>|for money. I got no problem sending him a little cash to help out if this
>|is really legit and not some sick and twisted ploy to get money by preying
>|upon the generosity of the ham community.. BTW: He sends a very nice
>|picture full color QSL card so that just makes me more skeptical that this
>|is legit and not a scam. Let me know what you think.
>|
>
>I hope I am wrong, but this sounds like a panhandler on the street
>corner asking for a little change for some food while a cigarette
>hangs from his mouth.
>
>Too many tragedies for me. He can't walk *and* his house burned down.
>But, send the money and he'll send a second color picture of his new
>antenna.
>
>I don't mind fostering internation good will, hell, I had a Russian
>ham ask me for a picture of the Grand Canyon. So the XYL and I used
>that as an excuse to drive up there and take a photo of me in front of
>the canyon and I sent it to him along with a copy of Arizona Highways
>magazine. (Okay... we were going anyway:)
>
>But when I advertised a transceiver for sale and a Russian wanted to
>buy it and wanted my bank account number so he could direct-deposit
>the funds, I rang up "NO SALE." There have to be limits on goodwill.
>
>My $.02
>

I'm glad to see that hams are so honest and trusting. Of course you
could write back and ask your correspondent to send you a couple of
hundred dollars as a show of good faith before you ...

Tom Donaly KA6RUH

1761. Re: What'e your favorite method to bring coax into the shack?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 23:41:36 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DC31126.210B281@bellatlantic.net>
Source record: 132100

Gary Brown wrote:
>
> Looking for any "hints and kinks" the group may wish to share. So far I have
> used the dryer vent, the sewer vent pipe on the roof, and the usual hole in the
> wall over the past 40 years. And, I've slammed the window sash down on
> twin-lead!
> I've also heard of metal plates and plexiglass inserts for window frames, in
> basements.
>
> Thanks,
> Gary
> K4GPB

I put a hole right through the roof. Installed phony 3" PVC
"vent pipe" with two 90 degree curved elbows, so the opening in
the PVC faces down. The coax goes up into the first elbow,
horizontal through the short connecting pipe, then down through
the roof into to the attic. I cram insulation into the first
elbow from the outside.

1762. Re: Help identifying vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 23:42:32 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <3DC31168.CED5EE44@sympatico.ca>
Source record: 132101

```
- Q - wrote:
>
> Hi,
>
> Can anyone help me identify brand/model of this antenna I came across? I
> was told it was a HyGain vertical, 10-40 m, however it doesn't look much
> like the 10-40m HyGains on the website. 3 coils, and it does seem to tune
> at around 10/15/20/40 m
>
> If anyone could point me to a manual that's got tuning measurements,
> even better...
>
> Photos of the thing are at
> http://www.qsl.net/ti2dll/antenna.html
>
> 73
>
> --
> TI2DLL
> process@gamebox.net
```

I have an OLD HyGain vertical which looks almost identical, except that it has an additional coil and covers 10/15/20/40/80. Works good, but afraid I don't have a manual or a model number.

Dave

1763. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 23:46:02 UTC
From: artie <silli_artie@hotmail.com>
Message-ID: <011120021546028553%silli_artie@hotmail.com>
Source record: 132102

Here's how I teach antenna gain (from a demonstration I saw many many years ago -- I wish I remembered who did it so I could thank them).

Think of the RF you're feeding your antenna as a nerf ball (spongy foam thing).

Holding it in the palm of your hand, it's radiating out equally in all directions -- the perfect isotropic radiator.

Now hold it between two fingers, thumb and middle finger at north and south poles, and squeeze them together.

You've got a dipole radiation pattern now. Notice that the ball bulges out farther in some places, and less in some places in comparison to the original (unsquashed) ball. The places it bulges out larger, acting like a larger ball, those are the places where it has "gain" over an isotropic source.

But you've still got the same ball -- the same amount of energy going into the antenna -- so all you're doing is squashing it so more of the ball (more energy) goes in one direction, and less goes in others.

Highly directional antennas (yagis, dishes) can focus most of the energy in one direction, but the antenna can't *make* energy.

HTH...

In article <Xns92B9AB43D2347michalkunyahoocom@128.233.3.7>, Michalkun <no.spam@nospam.com> wrote:

> Could someone explain to me what does "gain" mean? Is it how much antenna
> amplifies the signal that it receives?

1764. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-01 23:57:36 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC314F0.E9BDF4C1@ieee.org>
Source record: 132104

artie wrote:
> Now hold it between two fingers, thumb and middle finger at north and
> south poles, and squeeze them together.

Egads Artie, whatever happened to photons that materialize somewhere
and fail to materialize elsewhere? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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1765. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:08:34 UTC
From: artie <silli_artie@hotmail.com>
Message-ID: <0111200216083499 06%silli_artie@hotmail.com>
Source record: 132105

If you're interested in *that* explanation, pick up a copy of Pozar's "Microwave Engineering" -- the inside front cover lists as "useful results" Maxwell's equiations in vector form... The book starts from there...

Seriously though, the nerf ball thing (or using a partially inflated balloon) lets you get across a bunch of concepts (radiation patterns, isotropic radiatiors, the need for a reference in gain calculations) in a very simple and visual manner (and without making reference to Mr. Maxwell, or vibrations in the lumeniferous aether).

In article <3DC314F0.E9BDF4C1@ieee.org>, CAM <Cecil.A.Moore@ieee.org> wrote:

> artie wrote:
> > Now hold it between two fingers, thumb and middle finger at north and
> > south poles, and squeeze them together.
>
> Egads Artie, whatever happened to photons that materialize somewhere
> and fail to materialize elsewhere? :-)

1766. COAX supports?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:09:59 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DC317CD.94BB1631@bellatlantic.net>
Source record: 132106

Is there a product made for supporting coax as it runs across (and in contact with) the length of a roof? I'd like to hold it up a bit so that it doesn't rub against the roof shingles and wear them out. (I've worn them out under the coax once already, and I'm not going to repeat that mistake.) I can suspend it - but I'd much rather support it.

Thanks for any help!

1767. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:15:58 UTC
From: fractenna@aol.com
Message-ID: <20021101191558.01247.00002213@mb-mk.aol.com>
Source record: 132107

>n excuse to drive up there and take a photo of me in front of
>the canyon and I sent it to him along with a copy of Arizona Highways
>magazine. (Okay... we were going anyway:)

Hmmm...

I could sure use a saturated f/22 (velvia: now and forever!) slide of Red Rock Canyon, with the moon peaking over Cathedral Rock, as it glows with sunset alpenglow over the silky smooth stream. Polarized blue sky with a hint of cloud wisp preferred. Graduated 2 stop neutral density filter recommended. Three second exposure. Try 100mm. 81A or 81B also. Use a tripod. Fill flash down 3 stops for hint of 5000 degree blush.

A horse crossing the stream would give a nice visual balance...

Last time I tried this pix, all of Arizona from Phoenix to Page was closed from fire danger...

FYI for those not in the know...Arizona Highways is not a travel guide. It is the best landscape periodical in the world.

73
Chip N1IR

1768. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:17:15 UTC
From: fractenna@aol.com
Message-ID: <20021101191715.01247.00002214@mb-mk.aol.com>
Source record: 132108

>It's probably more legit than much of the email we all receive.
>
>Back in the mid-1950's I got a letter with a QSL from VR6AC on
>Pitcairn Island asking if I could send him some radio parts.
>Considering the lack of electronic parts stores in the area, I thought
>that was not an unreasonable request. I didn't have any inventory of
>parts so I passed it on to the local "candy store", but don't know if
>they responded.
>
>Bob, N7XY
>
>On Fri, 1 Nov 2002 09:21:21 -0600, Matt wrote:
>> He only asked for 5 or 10 dollars. I got no problem with sending him some
>> money. I just wanted to see if anyone else has received such a letter like
>> this before.
>>
>> Thanks and 73s
>>
>> Matt
>> W5LL
>>
>> "Andy Cowley" <andy.cowley@uwe.ac.uk> wrote in message
>> news:3DC263AA.AA2FD21F@uwe.ac.uk...
>>> Matt wrote:
>>> >
>>> > I received a interesting QSL card today from RA3GS. I sent direct and
>> was
>>> > actually suprised that I got a card back. Anyway, included in the
>> envelope
>>> > was this letter. Goto http://www2.1starnet.com/matt/letter/ and take a
>> look
>>> > at it. I'd like to know what people think about it and if you've
>> received
>>> > such a letter when sending for a QSL card from this station. He's
>> asking
>>> > for money. I got no problem sending him a little cash to help out if
>> this
>>> > is really legit and not some sick and twisted ploy to get money by
>> preying
>>> > upon the generosity of the ham community.. BTW: He sends a very nice
>>> > picture full color QSL card so that just makes me more skeptical that
>> this
>>> > is legit and not a scam. Let me know what you think.
>>> >

>>> > Thanks,
>>> >
>>> > Matt
>>> > W5LL
>>>
>>> I may be doing the guy an injustice but check out his qrz.com picture.
>> That's
>>> a big mast/antenna plus a lot of gear. None of that was free. Still, times
>> are
>>> very hard in the former Soviet Union, so maybe he does need help. He's
>> certainly
>>> a lot less well off than most hams in the west. I'd say send him the money
>> if it
>>> doesn't hurt you, but don't feel guilty if you don't. I don't think he'll
>> spend
>>> it on booze or drugs like most panhandlers would but maybe on a new rig.
>> ;-)
>>>
>>> just my tuppence worth
>>>
>>> vy 73
>>>
>>> Andy, M3ABC
>>
>>
>
>
>--
>Bob Nielsen, N7XY n7xy@n7xy.net
>Bainbridge Island, WA
>IOTA NA-065, USI WA-028S
>
Bob--

Wasn't it VR6TC?

73,
Chip N1IR

1769. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:19:14 UTC
From: Sylvan Butler <Znospam+noZs_0211@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrnas66g2.hfe.Znospam+noZs_0211@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 132109

On Fri, 01 Nov 2002 00:34:47 GMT, Thomas C. Sefranek <WA1RHP@ARRL.net> wrote:
>
> Sylvan Butler <Znospam+noZs_0210@hpb13799Z.Zboi.hpZ.com.invalid> wrote in
> message
> news:slrnas2uup.bis.Znospam+noZs_0210@hpb13799Z.Zboi.hpZ.com.invalid...
>> On Wed, 30 Oct 2002 17:48:01 -0600, CAM <Cecil.A.Moore@ieee.org> wrote:
>> > Texas has a corner on the helium market. :-) They wouldn't give any
>> > to the Nazis and that's why the Hindenburg blew up.
>>
>> The Hindenburg did not "blow up", it burned. It would have burned
>> had it been helium, because it was the envelope burning before the
>> gas caught fire.
>
> Absolute NONSENSE!

Nope. Where do you think the fire started?

> Looking at the film record it is CLEAR that the flame front came from
> within.

That was after the fire was started.

> The file CLEARLY shows an explosion in the tail of the bird.

Not in my memory. There was a whoosh of burning hydrogen up and
outward, but that was no more an explosion than any gas jet.

> The envelope was the LAST to burn.

The first to start, last to finish.

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. >>>> change ^ to @ <<<< |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Stop Senator Fritz Hollings-S2048, Palladium, and TCPA, NOW!
http://www.freedom-to-tinker.com/archives/cat_fritzs_hit_list.html
Or else like Fritz, fight piracy -- regulate potty chairs!

1770. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:21:23 UTC
From: Sylvan Butler <Znospam+noZs_0211@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrnas66k3.hfe.Znospam+noZs_0211@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 132112

On Fri, 01 Nov 2002 15:59:50 -0600, CAM <Cecil.A.Moore@ieee.org> wrote:
> Sylvan Butler wrote:
>>
>> On Wed, 30 Oct 2002 17:48:01 -0600, CAM <Cecil.A.Moore@ieee.org> wrote:
>> > Texas has a corner on the helium market. :-) They wouldn't give any
>> > to the Nazis and that's why the Hindenburg blew up.
>>
>> The Hindenburg did not "blow up", it burned. It would have burned
>> had it been helium, because it was the envelope burning before the
>> gas caught fire.
>
> Somehow, I get the impression that the hydrogen assisted the burning

Not likely. It burns and moves up and away so fast it didn't do
much. That is why after big whoosh of hydrogen burning the envelope
was still burning.

> process. Helium, being inert, would have helped keep the oxygen away
> from the blaze.

Perhaps. But helium also rises away. Unless you could have
contained it between the blaze and the atmosphere, I think its
rising would have drawn oxygen in as much as helped keep it away.

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. >>>> change ^ to @ <<<< |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Stop Senator Fritz Hollings-S2048, Palladium, and TCPA, NOW!
http://www.freedom-to-tinker.com/archives/cat_fritzs_hit_list.html
Or else like Fritz, fight piracy -- regulate potty chairs!

1771. Re: What kind of cap should I chose?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:25:02 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us66r162u0etff@corp.supernews.com>
Source record: 132110

There are a number of varieties of ceramic used for capacitors, each with its own characteristics.

Z5U, Y5V, and similar ceramic capacitor types have ceramic with a very high dielectric constant. This makes them physically small, so they're great for bypassing (where the low inductance and high self resonant frequency is an advantage) and fine for coupling capacitors (where poor temperature stability isn't a problem). Z5U types can be microphonic, piezoelectric, and hygroscopic, have a terrible temperature coefficient, and exhibit nonlinear properties such as "hook" and "soak" so they're suitable only for applications where these characteristics can be tolerated. There are, however, a very large number of such applications. I've used physically small Z5U units as blocking capacitors with up to several hundred watts of RF with no problems. This is probably the most common type of ceramic capacitor you'll find in your junk box.

X7R and similar "stable" types are good when moderate to good temperature stability is required. They're larger than Z5U for the same capacitance. These types are good for most other applcations except those requiring extremely a very low temperature coefficient, for example moderate-Q tuned circuits or filters used in a moderately temperature controlled environment.

NPO or C0G types have a very low temperature coefficient, better than any other common capacitor type including mica and styrene. They can be used for high-Q tuned circuits and precision filters, and are in my opinion the best choice for oscillator tank circuits.

Ceramic capacitors come in several varieties, most commonly disk, monolithic, and radial leaded tubular ("dog bone"). Monolithic parts have low inductance and generally very good RF characteristics. Tubular parts also work very well at RF. I don't have as much experience with disk units, but do know that the capacitance can be a function of frequency because of the distance the current has to travel along the surface before it encounters most of the capacitance. Their RF properties are generally substantially inferior to monolithic types, which contain a sandwich of alternating metal and ceramic layers, with alternate metal layers connected in parallel along the ends of the ceramic block. This produces very low parasitic RF impedance and inductance.

Electrolytic capacitors require a DC bias to maintain the oxide coating which furnishes the insulation -- it's grown with an electrolytic process and will slowly dissolve with time if DC isn't present. (Its thickness will also decrease to just support whatever DC voltage is applied, so don't abruptly raise the voltage on an electrolytic capacitor that's been at one voltage for a very long time.) But ceramic

capacitors have no such requirement. High quality commercial products abound that use ceramic capacitors for the applications I mentioned, with and without DC bias. And they're not polarized, so there's no such thing as a "reverse voltage" to a ceramic capacitor.

An antenna tuner is a very demanding application for any capacitor. Huge voltages and/or currents can be involved, and only capacitors specially designed to handle these extremes (such as transmitting micas) are likely to survive. A few amps through a moderate sized monolithic ceramic capacitor shouldn't be a problem, but a tuner application might result in a lot more than that.

Roy Lewallen, W7EL

CAM wrote:
>
> John, in my humble opinion, you just cannot go wrong with a Texas Aggie cap.
>
> Seriously, ceramic caps, for instance, are intended for bypass use where the
> DC component never allows the dielectric to be exposed to a reverse voltage.
> I tried to use disc ceramic caps in my antenna tuner. They literally burned up.
> Someone told me that the ceramic dielectric actually physically moves when exposed
> to pure RF.
>
> For RF capacitors with no DC involved, mica, silver mica, air variable, doorknob,
> vacuum variable, etc. are to be used. Electrolytics and ceramics tend to malfunction
> unless they are biased with DC.

1772. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:28:39 UTC
From: Sylvan Butler <Znospam+noZs_0211@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrnas671n.hfe.Znospam+noZs_0211@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 132111

On Fri, 01 Nov 2002 00:34:47 GMT, Thomas C. Sefranek <WA1RHP@ARRL.net> wrote:
> Looking at the film record it is CLEAR that the flame front came from
> within.

Well, in 1998 that was refuted by some professors at UCLA:

William Van Vorst of the University of California at Los Angles and
Addison Bain, an independent consultant, have gathered evidence that
hydrogen could not have caused the explosion. Film footage and
witnesses of the crash describe bright yellow flames burning
downwards, but hydrogen would only burn in an upward direction with
a colourless flame. Several helium-filled airships also crashed and
appeared to burn in a similar way. A second piece of evidence comes
from chemical analysis of fabric used to cover the airframe. Van
Vorst and Bain discovered the that sealant used on the cotton - a
mixture of iron oxide, cellulose acetate and aluminium powder - was
extremely flammable. "The total mixture might well serve as a
respectable rocket propellant, " says Van Vorst. Finally, the design
used to attach the cotton to the airframe did not have any mechanism
for preventing the build up of electrostatic charge. They believe
that when the skin finally discharged, it passed a current through
the skin direct to the frame, igniting the sealant on the fabric.

After the crash Hugo Eckner, chairman of Zeppelin company, publicly
blamed the US for the accident by cutting off his supplies of
helium, forcing him to use hydrogen. However, Van Vorst and Bain
point out that the Graf Zeppelin , which was being constructed at
the time of the disaster, suddenly underwent a series of
modifications to reduce the risk posed by the fabric. These included
doping the fabric with a fireproofing agent and using copper rather
than aluminium in the sealant to prevent the build up of static
electricity. The researchers also discovered a letter from Otto
Beyersdorff - an independent investigator hired by the Zeppelin
Company - who blamed the fabric for causing the blaze. "Clearly,
there must have been strong suspicion that the fabric was the real
culprit, " says Van Vorst.

(not that that press release is entirely correct, but it is at least
in the correct direction)

The same information appeared in senate testimony and in popular
science in 1998. Long article:
http://www.fas.org/spp/civil/congress/1998/s981006-zep.htm

sdb

--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. >>>> change ^ to @ <<<< |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Stop Senator Fritz Hollings-S2048, Palladium, and TCPA, NOW!
http://www.freedom-to-tinker.com/archives/cat_fritzs_hit_list.html
Or else like Fritz, fight piracy -- regulate potty chairs!

1773. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:30:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us674hh8t86ma5@corp.supernews.com>
Source record: 132113

Gain is simply a ratio. When transmitting, the gain of the antenna is how strong a field will be produced compared to some reference antenna to which the same amount of power is applied. When receiving, it's the amount of power delivered to the receiver compared to a reference antenna immersed in the same field. The gain of an antenna is the same when transmitting and receiving. The gain of an antenna is generally different in each direction, both azimuth and elevation, and it's strongly influenced by the ground and other environmental factors. A graph of gain vs direction is called the antenna's pattern.

A single number for gain doesn't mean anything unless you know what the reference antenna is, and in what direction the gain is being stated for.

Roy Lewallen, W7EL

Michalkun wrote:
> Could someone explain to me what does "gain" mean? Is it how much antenna
> amplifies the signal that it receives?

1774. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:35:22 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC31DCA.EA7A6A20@ieee.org>
Source record: 132114

artie wrote:
> Seriously though, the nerf ball thing (or using a partially inflated
> balloon) lets you get across a bunch of concepts (radiation patterns,
> isotropic radiatiors, the need for a reference in gain calculations) in
> a very simple and visual manner (and without making reference to Mr.
> Maxwell, or vibrations in the lumeniferous aether).

Yep, the balloon illustration is one I use to explain destructive interference and constructive interference. Some people seem to think that destructive interference of energy can occur without a corresponding constructive interference involving that same energy. If energy is actually destroyed within a transmission line, where is the resulting matter created? If energy is created within a transmission line, where does the required matter to energy conversion come from?

Does 75 joules plus 8.33 joules really equal 133.33 joules?

Speaking of the lumeniferous aether, it seems that measurements around black holes have proved that such really exists as opposed to absolute nothing. There seems to be a definite difference between a vacuum within our universe and the nothingness outside of our universe. Of course, the nothingness outside of our universe is hard to measure. ;-)
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1775. Re: COAX supports?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:37:55 UTC
From: Leland Cox <lcox107@comcast.net>
Message-ID: <3DC31E63.8010208@comcast.net>
Source record: 132115

Run the coax inside PVC pipe.
Les, AA4F

ehsjr@bellatlantic.net wrote:

> Is there a product made for supporting coax as it
> runs across (and in contact with) the length of a
> roof? I'd like to hold it up a bit so that it
> doesn't rub against the roof shingles and wear
> them out. (I've worn them out under the coax
> once already, and I'm not going to repeat that
> mistake.) I can suspend it - but I'd much rather
> support it.
>
> Thanks for any help!
>

1776. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:39:17 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC31EB5.B1A4FE63@ieee.org>
Source record: 132116

Sylvan Butler wrote:
> > Helium, being inert, would have helped keep the oxygen away
> > from the blaze.
>
> Perhaps. But helium also rises away. Unless you could have
> contained it between the blaze and the atmosphere, I think its
> rising would have drawn oxygen in as much as helped keep it away.

Guess that depends on whether the fire started on the bottom or
the top. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1777. "intenna"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:41:40 UTC
From: Wesser <wesser@hiwaay.net>
Message-ID: <us64tknun48p8d@corp.supernews.com>
Source record: 132103

I am looking for an" intenna", or info on building another one like it.
it is a small metal box which has a tuning unit inside it. the box is about
3 inches by 1.5 by 1.5 in.
this is coax fed, then a very small diameter wire "antenna",about 3 to 4
feet long, if my memory serves me correctly, which you stick ,tape,glue, to
inside of a car window. thanks for the help
Carl / dee
Alabama,U.S.A.
##

1778. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:48:34 UTC
From: fractenna@aol.com
Message-ID: <20021101194834.01210.00002014@mb-mk.aol.com>
Source record: 132117

Gain is a mathematically defined quantity which is unitless:

G=4pi Ae/(Lambda^2)

where G is gain--a number which is NOT in dB; Ae is the effective aperture of the antenna, and Lambda is wavelength.

For a large circular aperture, such as a dish,

Ae=pi(D^2)/4

so to good approximaton

G=10(Dlamb)^2

where Dlamb is diameter in wavelengths.

Gain is the factor by which an antenna manifests, in a particular direction, more radiated power compared to an antenna radiating equally in all directions, that is one with a spherical or 'isotropic' pattern.

It is not possible, instantaneously, to get an antenna to have gain isotropically. Conservation of energy, and all that.

Typically gain is given in dB so to good approximation

G(dB)=10log(10(Dlamb^2))

Hope this helps.

73,
Chip N1IR

1779. Re: COAX supports?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 00:51:38 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DC3219A.67974B36@cwis.net>
Source record: 132118

ehsjr,
Can't remember where I've seen them, but I've
seen cable 'clamps' that look like an inverted
"U" on a nail. That's one alternative, if you can
find them...
'Doc

1780. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 01:03:06 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DC3244A.2131D0A0@cwis.net>
Source record: 132019

ehsjr,
Great! Now, when you figure it out,
would you explain it to me?
'Doc

1781. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 01:17:08 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <od6cnSdr8snNul6gXTWcpw@comcast.com>
Source record: 132020

Lets try another analogy. Put a lit candle on stand in the middle of the room. The room will be evenly illuminated. Now put a big mirror behind it; part of the room got brighter and part got darker. You just picked up 3db of gain (or therabouts). Nothing got amplified, there is still the one candle. Now if you are real smart, you can put a lens in front of the candle, and get a bright spot on the wall. You just got a lot of gain, but only in one direction. Same with antennas, the more gain, the more accurate you have to be in pointing it.

Tam/WB2TT

"Michalkun" <no.spam@nospam.com> wrote in message
news:Xns92B9AB43D2347michalkunyahoocom@128.233.3.7...
> Could someone explain to me what does "gain" mean? Is it how much antenna
> amplifies the signal that it receives?

1782. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 01:18:22 UTC
From: jder8745@aol.com
Message-ID: <20021101201822.08812.00002212@mb-fn.aol.com>
Source record: 132021

Howdy,

Getting gain from an antenna is like getting increased light from the flashlight bulb in your flashlight.

The reflector "aims" the light in a particular direction. The power of the bulb is the same but. oh my, what a difference in illumination.

An antenna achives gain in the same way. Instead of radiating in all directions like a light bulb hanging from a drop cord, it sends more power in chosen directions and reduces power in the other.

There. I sed it and I'm glad.

73 de Jack, K9CUN

Now about those photons...

1783. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 01:21:44 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <2b96suculo4naa2ti3u3r1njd0srra0lia@4ax.com>
Source record: 132022

On 02 Nov 2002 00:15:58 GMT, fractenna@aol.com (Fractenna) wrote:

|>n excuse to drive up there and take a photo of me in front of
|>the canyon and I sent it to him along with a copy of Arizona Highways
|>magazine. (Okay... we were going anyway:)
|
|Hmmm...
|
|I could sure use a saturated f/22 (velvia: now and forever!) slide of Red Rock
|Canyon, with the moon peaking over Cathedral Rock, as it glows with sunset
|alpenglow over the silky smooth stream. Polarized blue sky with a hint of cloud
|wisp preferred. Graduated 2 stop neutral density filter recommended. Three
|second exposure. Try 100mm. 81A or 81B also. Use a tripod. Fill flash down 3
|stops for hint of 5000 degree blush.

Hmmm indeed. That's going to be one hellofa flash. Surely you don't
want a slide but a 4X5 transparency.
|
|A horse crossing the stream would give a nice visual balance...
|
|Last time I tried this pix, all of Arizona from Phoenix to Page was closed
|from fire danger...

We had our share near Tucson in the Santa Catalina Mountains. The one
day I drove up to see the damage I got caught in a hail storm and
couldn't see a thing.
|
|FYI for those not in the know...Arizona Highways is not a travel guide. It is
|the best landscape periodical in the world.

It's easier when you have the best landscape in the world <g>.

1784. Re: What kind of cap should I chose?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 02:01:47 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <rt-cnUBd3OVbrF6gXTWcrg@comcast.com>
Source record: 132023

Roy,

Wish I could remember which type it is, but some bypass type ceramics just won't work in a tuned circuit. We never determined why, but think it was because the capacitor value changes with applied votage. John is looking for .11 ufd. He is probably best off with some kind of plastic dialectric cap. I think the ceramic RF caps we all love don't come that big.

Tam/WB2TT
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:us66r162u0etff@corp.supernews.com...
> There are a number of varieties of ceramic used for capacitors, each
> with its own characteristics.

1785. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 02:03:39 UTC
From: Fred Marshall <fmarshall@acm.org>
Message-ID: <apvbph$248a$1@feed.centurytel.net>
Source record: 132024

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:od6cnSdr8snNul6gXTWcpw@comcast.com...
> Lets try another analogy. Put a lit candle on stand in the middle of the
> room. The room will be evenly illuminated. Now put a big mirror behind it;
> part of the room got brighter and part got darker. You just picked up 3db
of
> gain (or therabouts). Nothing got amplified, there is still the one
candle.
> Now if you are real smart, you can put a lens in front of the candle, and
> get a bright spot on the wall. You just got a lot of gain, but only in one
> direction. Same with antennas, the more gain, the more accurate you have
to
> be in pointing it.

Nice analogy Tarmo!

You might note that this one yields noncoherent gain and most of our
antennas yield gain through coherent or "constant phase difference"
addition. So, this one is closer to 1.5dB (or thereabouts).

Not to diminish the analogy though. A picture is worth a thousand words!

73

Fred AC7VR

1786. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 02:22:24 UTC
From: fractenna@aol.com
Message-ID: <20021101212224.01314.00001983@mb-mk.aol.com>
Source record: 132025

>
>On 02 Nov 2002 00:15:58 GMT, fractenna@aol.com (Fractenna) wrote:
>
>|>n excuse to drive up there and take a photo of me in front of
>|>the canyon and I sent it to him along with a copy of Arizona Highways
>|>magazine. (Okay... we were going anyway:)
>|
>|Hmmm...
>|
>|I could sure use a saturated f/22 (velvia: now and forever!) slide of Red
>Rock
>|Canyon, with the moon peaking over Cathedral Rock, as it glows with sunset
>|alpenglow over the silky smooth stream. Polarized blue sky with a hint of
>cloud
>|wisp preferred. Graduated 2 stop neutral density filter recommended. Three
>|second exposure. Try 100mm. 81A or 81B also. Use a tripod. Fill flash down 3
>|stops for hint of 5000 degree blush.
>
>Hmmm indeed. That's going to be one hellofa flash. Surely you don't
>want a slide but a 4X5 transparency.
>|

Large format is too heavy and park rangers keep on asking you if you have a
'pro' permit...then they ask you if you have any cheetos. Why? Because bears
would walk from California to Tucson for a cheetoh...;-)

>|A horse crossing the stream would give a nice visual balance...
>|
>|Last time I tried this pix, all of Arizona from Phoenix to Page was closed
>|from fire danger...
>
>We had our share near Tucson in the Santa Catalina Mountains.

Damn shame.:-(

The one
>day I drove up to see the damage I got caught in a hail storm and
>couldn't see a thing.
>|

I can beat that....sand storm in Glen Canyon:-) Flash flood in
Corkscrew...(messy...) dust...dust...dust

>|FYI for those not in the know...Arizona Highways is not a travel guide. It
>is
>|the best landscape periodical in the world.

>
>It's easier when you have the best landscape in the world <g>.
>

(Southern)Utahians would disagree, but I'd take Saguaro anyday also. And don't forget, the best view of Monument valley is in AZ!

73,
Chip N1IR

1787. Re: COAX supports?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 02:24:14 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <fkd6suc6vp0jkt2nug53o17dhs9savu5gh@4ax.com>
Source record: 132026

Haven't seen those, but the type that have the nail & plastic clip are
readily available. If an inch or three of clearance is desired, I'd
use stand-off's made for 300 ohm line (if they can be found) and use a
length of wire (or UV resistant cable tie) to secure the coax.

Howard

On Fri, 01 Nov 2002 18:51:38 -0600, 'Doc <w5lz@cwis.net> wrote:

>
>
>ehsjr,
> Can't remember where I've seen them, but I've
>seen cable 'clamps' that look like an inverted
>"U" on a nail. That's one alternative, if you can
>find them...
> 'Doc

1788. Antenna orientation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 02:53:19 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailnospamorama.com>
Message-ID: <5TGw9.1739$_u.1510@news.bellsouth.net>
Source record: 132027

I have 2 questions about the orientation of an 80-meter dipole and an inverted V. Planning on a 40-10 beam at 45/50 feet for the other bands.

The ends of the dipole can be running in a north/south direction at about 30/35 feet above the ground.Can I get a semi-omnidirectional pattern, of just east/west?

The ends of the inverted V would be east/west. Peak at about 40 feet from the ground, the ends about 10 feet above the ground. Will this be semi-omnidirectional or mostly north/south?

--
73,
Chuck
KE4ETH
Remove the obvious from Email.

1789. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 02:57:12 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <3aHw9.13597$qD2.1392502@news20.bellglobal.com>
Source record: 132028

...excuse the OT...

"Fractenna" wander the halls mumbling...
> I could sure use a saturated f/22 (velvia: now and forever!)
> slide of Red Rock Canyon, with the moon peaking over
> Cathedral Rock, as it glows with sunset alpenglow over the
> silky smooth stream. Polarized blue sky with a hint of cloud
> wisp preferred. Graduated 2 stop neutral density filter
> recommended. Three second exposure. Try 100mm. 81A
> or 81B also. Use a tripod. Fill flash down 3 stops for hint
> of 5000 degree blush.
>
> A horse crossing the stream would give a nice visual balance...

Good grief...
Instead of a horse, use a zebra. It will add more 'visual interest'...

Here's a few 'hits' to tide you over...
http://images.google.com/images?q=red+rock+canyon
http://www.luminous-landscape.com/ (really good)

1790. Re: What kind of cap should I chose?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 03:05:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us6g8f88t2rdab@corp.supernews.com>
Source record: 132029

I don't recall seeing that effect, but wouldn't be surprised at all if the capacitance of a Z5U doesn't change with voltage. I have seen them exhibit "soak" (dielectric absorption), where some of the charge takes a long, long time to make its way out and which makes them appear to re-charge themselves after a rapid discharge or to change capacitance with time. That might be the effect you saw. (Electrolytics also exhibit this effect quite strongly, as does the high-voltage aquadag coating on a CRT. I have very personal experience with the latter.)

X7Rs are relatively free of the strange properties exhibited by Z5Us, and NPO/C0Gs are very stable and predictable. Z5Us should be used only for bypassing or coupling, in places where it won't hurt if the capacitance value wanders all over the place. But don't lump all ceramics in the same category.

The "Z5" in Z5U means that the temperature range is +10 to +85 C. The "U" means that the capacitance can vary from +22 to -56% over that range. By contrast, an X7R varies no more than +/-15% from -55 to +125 C, and a C0G has a temperature coefficient of no more than +/- 30 ppm/degree C. There are other types and combinations, but these or their close brethren are the most common. The temperature coefficient is by no means the only difference between them, though.

Sometimes the temperature coefficient is identified by only a single letter. When this designation is used, "E" means +22 to -56%, "C" is +22 to -33%, "B" is +/-7.5%, and "A" is +/-30 ppm/deg C).

I've got monolithic ceramic capacitors up to 2.2 uF in my junk box. They're Z5U, 25 volts, and about 0.3" square.

Roy Lewallen, W7EL

Tarmo Tammaru wrote:
> Roy,
>
> Wish I could remember which type it is, but some bypass type ceramics just
> won't work in a tuned circuit. We never determined why, but think it was
> because the capacitor value changes with applied votage. John is looking for
> .11 ufd. He is probably best off with some kind of plastic dialectric cap. I
> think the ceramic RF caps we all love don't come that big.
>
> Tam/WB2TT

1791. Re: What kind of cap should I chose?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 03:35:13 UTC
From: Bill M <exray@no>
Message-ID: <us6hqt418nhfe2@corp.supernews.com>
Source record: 132031

Roy,
I have copied your last couple of posts on this topic over to rar+p
where the subject occasionally comes up "what do all those little
letters mean?"
Do you, by any chance, have a reference link that would aid in decoding
them in the manner which you are providing here?
Secondly, any suggestions for divining the voltage rating of unmarked
disc caps?

Tnx,
Bill WX4A/KP4

Roy Lewallen wrote:
>
> I don't recall seeing that effect, but wouldn't be surprised at all if
> the capacitance of a Z5U doesn't change with voltage. I have seen them
> exhibit "soak" (dielectric absorption), where some of the charge takes a
> long, long time to make its way out and which makes them appear to
> re-charge themselves after a rapid discharge or to change capacitance
> with time. That might be the effect you saw. (Electrolytics also exhibit
> this effect quite strongly, as does the high-voltage aquadag coating on
> a CRT. I have very personal experience with the latter.)
>
> X7Rs are relatively free of the strange properties exhibited by Z5Us,
> and NPO/C0Gs are very stable and predictable. Z5Us should be used only
> for bypassing or coupling, in places where it won't hurt if the
> capacitance value wanders all over the place. But don't lump all
> ceramics in the same category.
>
> The "Z5" in Z5U means that the temperature range is +10 to +85 C. The
> "U" means that the capacitance can vary from +22 to -56% over that
> range. By contrast, an X7R varies no more than +/-15% from -55 to +125
> C, and a C0G has a temperature coefficient of no more than +/- 30
> ppm/degree C. There are other types and combinations, but these or their
> close brethren are the most common. The temperature coefficient is by no
> means the only difference between them, though.
>
> Sometimes the temperature coefficient is identified by only a single
> letter. When this designation is used, "E" means +22 to -56%, "C" is +22
> to -33%, "B" is +/-7.5%, and "A" is +/-30 ppm/deg C).
>
> I've got monolithic ceramic capacitors up to 2.2 uF in my junk box.
> They're Z5U, 25 volts, and about 0.3" square.
>
> Roy Lewallen, W7EL

1792. Re: Antenna orientation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 04:07:23 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <%bIw9.3391$z5.2467967@newssvr28.news.prodigy.com>
Source record: 132030

Chuck, at that height my guess is that you wouldn't get a whole lot of directivity with either antenna...but the dipole should have more directivity than the inverted vee.

Larry N8LP

"Chuck/KE4ETH" <chuck_hawks@hotmailnospamorama.com> wrote in message news:5TGw9.1739$_u.1510@news.bellsouth.net...
> I have 2 questions about the orientation of an 80-meter dipole and an
> inverted V. Planning on a 40-10 beam at 45/50 feet for the other bands.
>
> The ends of the dipole can be running in a north/south direction at about
> 30/35 feet above the ground.Can I get a semi-omnidirectional pattern, of
> just east/west?
>
> The ends of the inverted V would be east/west. Peak at about 40 feet from
> the ground, the ends about 10 feet above the ground. Will this be
> semi-omnidirectional or mostly north/south?
>
> --
> 73,
> Chuck
> KE4ETH
> Remove the obvious from Email.
>
>
>
>

1793. Re: Antenna orientation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 04:57:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us6mqctfmceg7a@corp.supernews.com>
Source record: 132034

If you'd like to get some actual numbers, download the free demo version of EZNEC from http://eznec.com. In the "Getting Started" section of the manual (click 'Help' to access it), it'll take you to the "Test Drive" tutorial. And that takes you through the design of a dipole and inverted vee. They're for 20 meters, but you can easily rescale them to 80 meters by selecting "Frequency" in the main window and checking "Rescale".

Roy Lewallen, W7EL

Chuck/KE4ETH wrote:
> I have 2 questions about the orientation of an 80-meter dipole and an
> inverted V. Planning on a 40-10 beam at 45/50 feet for the other bands.
>
> The ends of the dipole can be running in a north/south direction at about
> 30/35 feet above the ground.Can I get a semi-omnidirectional pattern, of
> just east/west?
>
> The ends of the inverted V would be east/west. Peak at about 40 feet from
> the ground, the ends about 10 feet above the ground. Will this be
> semi-omnidirectional or mostly north/south?
>
> --
> 73,
> Chuck
> KE4ETH
> Remove the obvious from Email.
>
>
>
>

1794. Inverted L and Radials

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 05:00:05 UTC
From: Pete Ritter <cpritter@attbi.com>
Message-ID: <pZIw9.216259$%d2.72744@sccrnsc01>
Source record: 132032

I want to add radials to my new inverted L antenna. The antenna runs from the ground up the back of the house and then across the roof. The vertical portion is about 9 meters (30 feet) long and the horizontal about 13 meters (45 feet). It is fed with coax through a lightning arrestor which is clamped to a ground rod. The antenna tuner is at the other (rig) end of the coax. I want to work all bands 160(yeah, sure!)-10 if possible.

I can install only 3 runs of radials. Two runs would be 180 degrees apart from each other and the other 90 degrees from those. What would be better?

1. Each run consisting of one wire as long as possible.
2. Each run consisting of one wire of length (how long?).
3. Each run consisting of a bundle of (insulated) wires, one tuned to each band of interest (1/4 lamda?).
4. Your suggestion?

Would I see an efficiency improvement if I were to install an automatic tuner between the coax and the ground end of the L (over that of a manual tuner at the rig end of the coax)?

Thanks for your suggestions and observations.

Pete WB5KLY

--
*
* This Space For Hire
*

1795. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 05:00:59 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <pqm6su4jifgj2pa2ps7jkgkcoarmgj6npb@4ax.com>
Source record: 132033

On 31 Oct 2002 04:27:10 GMT, tdonaly@aol.com (Tdonaly) wrote:

>>
>>"Eric C. Weaver" wrote:
>>> Helium is much rarer (and I expect more expensive) than plain H2.
>>
>>Texas has a corner on the helium market. :-) They wouldn't give any
>>to the Nazis and that's why the Hindenburg blew up.
>>--
>>cheers, CAM http://www.qsl.net/w5dxp
>>
>>
>Which end is it produced from?
>73,
>Tom Donaly, KA6RUH

You may be thinking of methane?

1796. Re: What kind of cap should I chose?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 05:05:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us6n9reftdfp99@corp.supernews.com>
Source record: 132035

Sorry, I don't know of a link. I'm sure it must be Out There somewhere, though.

The tolerance can also be indicated by a single letter, as follows:

F 1%
G 2%
H 3%
J 5%
K 10%
M 20%
Z -20 +80%
P -0 +100%
W +22 -90%

This letter usually follows the value. For example, 223k is 22nF (22 X 10^3 or 22,000 pF), 10%.

I don't know of any similar scheme for indicating working voltage.

Roy Lewallen, W7EL

Bill M wrote:
> Roy,
> I have copied your last couple of posts on this topic over to rar+p
> where the subject occasionally comes up "what do all those little
> letters mean?"
> Do you, by any chance, have a reference link that would aid in decoding
> them in the manner which you are providing here?
> Secondly, any suggestions for divining the voltage rating of unmarked
> disc caps?
>
> Tnx,
> Bill WX4A/KP4
>
>
>
> Roy Lewallen wrote:
>
>>I don't recall seeing that effect, but wouldn't be surprised at all if
>>the capacitance of a Z5U doesn't change with voltage. I have seen them
>>exhibit "soak" (dielectric absorption), where some of the charge takes a
>>long, long time to make its way out and which makes them appear to
>>re-charge themselves after a rapid discharge or to change capacitance
>>with time. That might be the effect you saw. (Electrolytics also exhibit
>>this effect quite strongly, as does the high-voltage aquadag coating on

>>a CRT. I have very personal experience with the latter.)
>>
>>X7Rs are relatively free of the strange properties exhibited by Z5Us,
>>and NPO/C0Gs are very stable and predictable. Z5Us should be used only
>>for bypassing or coupling, in places where it won't hurt if the
>>capacitance value wanders all over the place. But don't lump all
>>ceramics in the same category.
>>
>>The "Z5" in Z5U means that the temperature range is +10 to +85 C. The
>>"U" means that the capacitance can vary from +22 to -56% over that
>>range. By contrast, an X7R varies no more than +/-15% from -55 to +125
>>C, and a C0G has a temperature coefficient of no more than +/- 30
>>ppm/degree C. There are other types and combinations, but these or their
>>close brethren are the most common. The temperature coefficient is by no
>>means the only difference between them, though.
>>
>>Sometimes the temperature coefficient is identified by only a single
>>letter. When this designation is used, "E" means +22 to -56%, "C" is +22
>>to -33%, "B" is +/-7.5%, and "A" is +/-30 ppm/deg C).
>>
>>I've got monolithic ceramic capacitors up to 2.2 uF in my junk box.
>>They're Z5U, 25 volts, and about 0.3" square.
>>
>>Roy Lewallen, W7EL
>

1797. Re: What kind of cap should I chose?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 05:09:03 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <UEidnToiaZg0wF6gXTWc3w@comcast.com>
Source record: 132036

Roy,
Maybe I should explain by what I meant by "didn't work". Guy was trying to convert a regular pulse stream to a sine wave, at some fairly low frequency, with an LC tank circuit. The thing tuned very broadly, and amplitude was low and distorted. Just changing to a different capacitor, I think mylar, fixed it. Amplitude came up 4 or 5X. I don't remember the frequency, but it was probably in the tens of KHz.. The original capacitor was one of these black rectangular jobs with leads on one edge. This was a breadboard for a real job, and it was easier to change capacitors, then to figure out why the ceramic did not work. Note that we did not start looking at caps that were not already factory approved.

Tam/WB2TT
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:us6g8f88t2rdab@corp.supernews.com...
> I don't recall seeing that effect, but wouldn't be surprised at all if

1798. Performance of Sony AN-LP1?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 05:55:57 UTC
From: january <january16@sinaman.com>
Message-ID: <apvpd5$oje2@imsp212.netvigator.com>
Source record: 132037

I have a magnetic square loop with side 25 inch, will the Song AN-LP1 perform better than the loop I have?

I use the antenna for SWL only.

1799. Re: Inverted L and Radials

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 06:12:14 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <apvqbteu1@venus.btinternet.com>
Source record: 132038

Pete, You may find program ENDFEED interesting. Download in a few seconds
from website below.

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

1800. Re: Performance of Sony AN-LP1?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 06:22:17 UTC
From: Bill M <exray@no>
Message-ID: <us6rk25sgmg00c@corp.supernews.com>
Source record: 132039

january wrote:
>
> I have a magnetic square loop with side 25 inch, will the Song AN-LP1
> perform better than the loop I have?
>
> I use the antenna for SWL only.

Both regarded highly by some because the received signal seems louder
than with a 18" whip provided on their particular radio. Really, both
are crap antennas for long-haul DX. If you want to hear Radio Nepal
look into real antennas...if you want Deutsche Welle via Antigua West
Indies, even the AN-LP1 may seem better than an indoor loop.
There's no substitute for pieces of outdoor wire for SW reception.
-ex

1801. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 11:08:38 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aq0bnl$3c7$1@knossos.btinternet.com>
Source record: 132040

Richard said,
> Reg has argued that high plate, collector, and drain dynamic resistances
> preclude a matched load.
==========

No I havn't. Nor anything like it. You must have mistaken me for somebody
else.

Reg.

1802. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 11:58:09 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <lLzDPW1qOUl7owIIkpgpmVXtHmBm@4ax.com>
Source record: 132041

CAM <Cecil.A.Moore@ieee.org> wrote:

>Matt wrote:
>> BTW: He sends a very nice
>> picture full color QSL card so that just makes me more skeptical that this
>> is legit and not a scam. Let me know what you think.

The full color qsl has to go though the printing press four times, once each for the primary colors of red, blue and yellow, and once more for black. Maybe he's getting a sweet deal on printing, but it ain't normally cheap to send out full color cards, unless maybe it's something he does on a computer with an ink jet printer...

Bob
k5qwg

>
>If he has a modest fixed income, the more expensive QSL cards would make it
>more legit, wouldn't it?

1803. Quik 4:1 balun ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 13:09:30 UTC
From: Paolo Barsotti <ik5ztt@email.it>
Message-ID: <e4731477fd9858004356827e70e670a7.113193@mygate.mailgate.org>
Source record: 132042

Hi dear,
how is a quick and economic way to built a 4:1 balun , for 150W
only maw into ?
Do you know one ? i'd try to get it.
thanks a lot from Paolo ik5ztt

--
Posted via Mailgate.ORG Server - http://www.Mailgate.ORG

1804. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 13:23:36 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211020523.549f6ad7@posting.google.com>
Source record: 132043

'Doc <w5lz@cwis.net> wrote in message news:<3DC3244A.2131D0A0@cwis.net>...
> ehsjr,
> Great! Now, when you figure it out,
> would you explain it to me?
> 'Doc

Doctor,
Clark found an old page of mine (it has to be more than
6 years old as it was my second effort !)
If you read that it will possibly help to come up to speed
so you can understand my point about gain/efficiency.
Rather than throwing stones why not E mail me direct and
I will help you to get over the stumbling blocks ?
If anybody finds my first attempt at a page (Unwin antenna,antenna
construction e.t.c, probably near 8 years or more ago, I would really
appreciate knowing where it is as I have lost its contents.
Have a good CQ contest and put aside the bricks over the weekend
Regards
Art

1805. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 14:28:31 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <us7o8gas6ogj31@corp.supernews.com>
Source record: 132045

I sent them some sparkplugs they needed about 30 years ago for one of their boats. Got them on a freighter out of New York that was connecting with another going to Hong Kong connecting with another going to VR6.

It took them 9 months to get the plugs.

I don't know if the rules have changed, but years ago it was legal to handle commercial requests from VR6 on the ham bands as that was their major means of communications. I see now they have an internet site.

"Bob Nielsen" <nielsen@remove_this.oz.net> wrote in message news:apujp7iin0@216.39.144.81...
> It's probably more legit than much of the email we all receive.
>
> Back in the mid-1950's I got a letter with a QSL from VR6AC on
> Pitcairn Island asking if I could send him some radio parts.
> Considering the lack of electronic parts stores in the area, I thought
> that was not an unreasonable request. I didn't have any inventory of
> parts so I passed it on to the local "candy store", but don't know if
> they responded.
>
> Bob, N7XY
>
> On Fri, 1 Nov 2002 09:21:21 -0600, Matt wrote:
> > He only asked for 5 or 10 dollars. I got no problem with sending him some
> > money. I just wanted to see if anyone else has received such a letter like
> > this before.
> >
> > Thanks and 73s
> >
> > Matt
> > W5LL
> >
> > "Andy Cowley" <andy.cowley@uwe.ac.uk> wrote in message
> > news:3DC263AA.AA2FD21F@uwe.ac.uk...
> >> Matt wrote:
> >> >
> >> > I received a interesting QSL card today from RA3GS. I sent direct and
> > was
> >> > actually suprised that I got a card back. Anyway, included in the
> > envelope
> >> > was this letter. Goto http://www2.1starnet.com/matt/letter/ and take

a
> > look
> >> > at it. I'd like to know what people think about it and if you've
> > received
> >> > such a letter when sending for a QSL card from this station. He's
> > asking
> >> > for money. I got no problem sending him a little cash to help out if
> > this
> >> > is really legit and not some sick and twisted ploy to get money by
> > preying
> >> > upon the generosity of the ham community.. BTW: He sends a very
nice
> >> > picture full color QSL card so that just makes me more skeptical that
> > this
> >> > is legit and not a scam. Let me know what you think.
> >> >
> >> > Thanks,
> >> >
> >> > Matt
> >> > W5LL
> >>
> >> I may be doing the guy an injustice but check out his qrz.com picture.
> > That's
> >> a big mast/antenna plus a lot of gear. None of that was free. Still,
times
> > are
> >> very hard in the former Soviet Union, so maybe he does need help. He's
> > certainly
> >> a lot less well off than most hams in the west. I'd say send him the
money
> > if it
> >> doesn't hurt you, but don't feel guilty if you don't. I don't think
he'll
> > spend
> >> it on booze or drugs like most panhandlers would but maybe on a new
rig.
> > ;-)
> >>
> >> just my tuppence worth
> >>
> >> vy 73
> >>
> >> Andy, M3ABC
> >
> >
>
>
> --
> Bob Nielsen, N7XY n7xy@n7xy.net
> Bainbridge Island, WA

> IOTA NA-065, USI WA-028S

1806. MaxComm antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 14:29:23 UTC
From: sjbeyers@trianglenet.net
Message-ID: <72befaab.0211020629.72e183fd@posting.google.com>
Source record: 132044

I recently looked at a web site (MaxComm) that offers a seemingly completely knob-free automatic antenna tuner that can be located anywhere in the feedline. It seems too good to be true. I read the "theory of operation" but could not make sense of it. It used terms and ideas that I have not encountered before. Does anyone have any experience with it, or know anything about it?

Steve W9HJW

1807. Re: Quik 4:1 balun ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 14:34:09 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <h7adnRHCX4-Ef16gXTWc3w@comcast.com>
Source record: 132046

Paulo,

Do you need it for wide band, or only one band? It makes a huge difference.
What is the frequency?

Tam/WB2TT
"Paolo Barsotti" <ik5ztt@email.it> wrote in message
news:e4731477fd9858004356827e70e670a7.113193@mygate.mailgate.org...
> Hi dear,
> how is a quick and economic way to built a 4:1 balun , for 150W
> only maw into ?
> Do you know one ? i'd try to get it.
> thanks a lot from Paolo ik5ztt
>
>
> --
> Posted via Mailgate.ORG Server - http://www.Mailgate.ORG

1808. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 14:41:05 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <us7p01rn25np6f@corp.supernews.com>
Source record: 132047

Do you also go to rec.photog and talk about how you made a DX contact using
10 watts on 14.313 from a homebrew rig running a 2E26 and clamp tube
modulated by a 6AQ5 fed to a 92nd order pseudo Strabinski fractal antenna?

"Fractenna" <fractenna@aol.com> wrote in message
news:20021101191558.01247.00002213@mb-mk.aol.com...
> >n excuse to drive up there and take a photo of me in front of
> >the canyon and I sent it to him along with a copy of Arizona Highways
> >magazine. (Okay... we were going anyway:)
>
> Hmmm...
>
> I could sure use a saturated f/22 (velvia: now and forever!) slide of Red
Rock
> Canyon, with the moon peaking over Cathedral Rock, as it glows with sunset
> alpenglow over the silky smooth stream. Polarized blue sky with a hint of
cloud
> wisp preferred. Graduated 2 stop neutral density filter recommended. Three
> second exposure. Try 100mm. 81A or 81B also. Use a tripod. Fill flash down
3
> stops for hint of 5000 degree blush.
>
> A horse crossing the stream would give a nice visual balance...
>
> Last time I tried this pix, all of Arizona from Phoenix to Page was
closed
> from fire danger...
>
> FYI for those not in the know...Arizona Highways is not a travel guide.
It is
> the best landscape periodical in the world.
>
> 73
> Chip N1IR

1809. Re: Help identifying vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 14:46:28 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <8zRw9.42213$ku2.2113469@twister.southeast.rr.com>
Source record: 132048

It looks like it may be a HyGain 14AVT, but the traps are hooked up wrong.
They are shown upside down from how they would be inserted.

Look up the Boat Anchor Manual site, the manual may be there. www.bama.com
or something like that.

Good luck,

Bill, W4WNT

"- Q -" <process@gamebox.net> wrote in message
news:pan.2002.11.01.16.52.35.937612.453@gamebox.net...
> Hi,
>
> Can anyone help me identify brand/model of this antenna I came across? I
> was told it was a HyGain vertical, 10-40 m, however it doesn't look much
> like the 10-40m HyGains on the website. 3 coils, and it does seem to tune
> at around 10/15/20/40 m
>
> If anyone could point me to a manual that's got tuning measurements,
> even better...
>
> Photos of the thing are at
> http://www.qsl.net/ti2dll/antenna.html
>
> 73
>
> --
> TI2DLL
> process@gamebox.net

1810. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 14:53:40 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <us7pnle4muc69b@corp.supernews.com>
Source record: 132049

"And the previously dead horse is seen re-entering the race..."

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DC31DCA.EA7A6A20@ieee.org...
>
> Does 75 joules plus 8.33 joules really equal 133.33 joules?
>

1811. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 14:58:31 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <us7q0o8dvl4pf4@corp.supernews.com>
Source record: 132050

In short yes, a 3dB gain means you have twice as much signal in the favored direction as the reference.

Next you will receive a zillion answers in here from the folks that will give you the history of clocks rather than give you the time of day you asked for.

"Michalkun" <no.spam@nospam.com> wrote in message news:Xns92B9AB43D2347michalkunyahoocom@128.233.3.7...
> Could someone explain to me what does "gain" mean? Is it how much antenna
> amplifies the signal that it receives?

1812. Re: MaxComm antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 15:16:03 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <J_Rw9.10929$h_4.1698096@news20.bellglobal.com>
Source record: 132051

"Steve Beyers"
> I recently looked at a web site (MaxComm)...

Poor hint. Couldn't find the website for a few seconds, but saw finally spotted it on a Google Advertisement. Here's the link so that people can respond.

http://www.maxx-com.com/

Oh, I see...

See also 'Dummy Dipole'.

You can achieve the same performance with about 500' of RG-58.

1813. Re: MaxComm antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 15:27:42 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <E9Sw9.10932$h_4.1700622@news20.bellglobal.com>
Source record: 132052

> "Steve Beyers"
> > I recently looked at a web site (MaxComm)...

http://www.maxx-com.com/

"MAXX-COM Antenna Tuners are Fully Automatic."
"MAXX-COM is always tuned and ready to transmit."
"100% Solid State Construction."
"No moving parts to break or wear out."

Because they are simply resistors.
Misleading.

"MAXX-COM is the most compact and
efficient antenna matcher available today!"

Efficient ? Must be about 3dB loss - not good.
Misleading.

"...matches it in 1/1200th of a second."

Or even less...practically instantaneous...
Misleading.

About 3dB attenuation or so, thus 6dB return loss. Although it is a crazy approach, it could actually have practical application in some situations (yachts for example). It rubs against the grain though. Their lack of candor about the technical details is enough to turn off anyone that has seen the X-ray of what is inside.

1814. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 15:36:26 UTC
From: Bill M <exray@no>
Message-ID: <us7s2ppkipafcf@corp.supernews.com>
Source record: 132053

"Fred Hambrecht Sr." wrote:
>
> I sent them some sparkplugs they needed about 30 years ago for one of their
> boats. Got them on a freighter out of New York that was connecting with
> another going to Hong Kong connecting with another going to VR6.
>
> It took them 9 months to get the plugs.
>
> I don't know if the rules have changed, but years ago it was legal to handle
> commercial requests from VR6 on the ham bands as that was their major means
> of communications. I see now they have an internet site.

If it was VR6TC, I recall that he also ran the 'commercial'
communications for the island so he did pretty much what suited him.

-BM

1815. Re: interesting letter received with QSL card

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 16:06:59 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC3F823.F824DE4C@ieee.org>
Source record: 132054

Bob Miller wrote:
>
> CAM <Cecil.A.Moore@ieee.org> wrote:
>
> >Matt wrote:
> >> BTW: He sends a very nice
> >> picture full color QSL card so that just makes me more skeptical that this
> >> is legit and not a scam. Let me know what you think.
>
> The full color qsl has to go though the printing press four times, once each for
> the primary colors of red, blue and yellow, and once more for black. Maybe he's
> getting a sweet deal on printing, but it ain't normally cheap to send out full
> color cards, unless maybe it's something he does on a computer with an ink jet
> printer...

My point was maybe that's what bankrupted him - those expensive QSL cards. :-)

> >If he has a modest fixed income, the more expensive QSL cards would make it
> >more legit, wouldn't it?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1816. Re: MaxComm antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 16:08:56 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC3F898.19215B2@ieee.org>
Source record: 132055

Steve Beyers wrote:
> I recently looked at a web site (MaxComm) that offers a seemingly
> completely knob-free automatic antenna tuner that can be located
> anywhere in the feedline. It seems too good to be true. I read the
> "theory of operation" but could not make sense of it. It used terms
> and ideas that I have not encountered before. Does anyone have any
> experience with it, or know anything about it?

You're right, Steve, a dummy load doesn't have any knobs.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1817. 144/450Mhz Antenna mounts on Jeeps

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 16:35:50 UTC
From: rbraddy@crosslink.net
Message-ID: <c07dab63.0211020835.3e9fec5f@posting.google.com>
Source record: 132056

Mounting an ham antenna on a Wrangler Jeep with cloth tops etc is a challange. I ended up getting a Radio Shack type glass mount antenna and mounted up in the upper corners of the windshield glass. I checked with the local State Police and found it was legal in Virginia if it clears the windshield wiper blade operation. This worked out real good except there isnt much gain associated with this type of glass mount antenna.

I recently bought a couple of higher gain 5/8 wavelength 2m/440 antennas and mounted them on one of those windshield adapter mounts provided by severeal of the Jeep Parts catalog companies that are used for mounting an external spot light for Jeep vehicles. These mounting plates mount over the existing windshiled hinges and give just enough room for the motorola type NMO mounts. The antenna cable runs down to the gap in the windshield hinge and right into the vehicle compartment around a rubber thing used with the jeep doors. The cable is barely visible from the outside... Pretty neat installation...
Roy K9PHT

1818. Ferrite beads: Does 4 X 1/4 = 1?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 16:41:35 UTC
From: cprstn54zz@att.net
Message-ID: <3dc3ff2f.189856187@news-server.optonline.net>
Source record: 132057

(1) In using Type 77 ferrite beads on coax as an HF choke, is it
better to use four small 1/4" long beads or one large 1" long bead
(multiplied as necessary)?

Is it better for the beads to touch each other, or to be separated
(say by hot melt glue or othe non-conductive material)?

(3) If it doesn't matter, isn't it better to separate the beads for
better cooling?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1819. Re: MaxComm antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 16:45:45 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <PiTw9.10969$h_4.1717572@news20.bellglobal.com>
Source record: 132058

Steve Beyers wrote:
> ...MaxComm...

"CAM"
> You're right, Steve, a dummy load doesn't have any knobs.

To be completely fair, it isn't THAT bad. It should radiate about half the power fed to it (excluding other system losses). A good (well shielded) dummy load would obviously radiate much less.

For a yacht, being 3dB down in output power might be made up by the wonderful salt water ground plane of the ocean. And on receive on HF bands, efficiency isn't usually a concern since the S/N ratio is usually set by the external environment anyway (simply twist the RF Gain a bit). A yacht seems like a reasonable application. Especially if the sailor isn't interested in fiddling with tuners.

It's too bad that their marketing approach is so misleading. "Solid State" and all those other half-truths. I think that they could actually improve their sales by being more open about the not-so advanced technology being employed and honestly explaining the trade-offs.

1820. Pattern of *Tri-Di-Pole*+++

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 17:19:30 UTC
From: wa8mea@hotmail.com
Message-ID: <8a260fb2.0211020919.1d04a7f@posting.google.com>
Source record: 132059
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.dx

Could use some help from some of our more technically minded antenna buffs.

Several years back, I came up with a general use dipole for SWL's that I named the "Tri-Di-Pole". The "Tri" meant a third wire element connected to the ground side of the dipole at the appex, with this wire running straight done to be connected to a ground rod. This was invented more for practicality purposes, so SWL's didn't have to fiddle with ground wires soldered to those tiny little external antenna phone plugs that are in common use for most portable shortwave radios.

But over the years, several hams have called me about using this same antenna for transmitting. To be honest, I've never tried it for transmit. I just don't have the real estate to experiment with it. But now I'm curious, how well would it work for transmitting purposes?

My devices are born more out of a practical design than technical. I freely admit I'm not all that antenna theory book smart. My questions: What kind of a pattern would this antenna have? Would the take off angle make it highly suitable for DX on certain freq bands? And what would I have to trim? Just the two standard dipole elements? Or would I also have to trim the third ground element? Anybody ever try such a design for transmit and on what freqs?

Thanks for any/all input.

73, Bill Lauterbach - WA8MEA
DWM Communications

http://qth.com/dwm

wa8mea@hotmail.com

1821. Re: MaxComm antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 17:23:28 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DC40A0F.D45974B4@cwis.net>
Source record: 132060

Steve,
This thing was first marketed in the early 80's, so
I guess at least part of the advertisement is true.
There were a number of them sold, mainly to people on
boats, and some of them even had good things to say
about it (you can imagine how bad their antenna system
must have been). One of the magazines had one of the
'Maxxcom' tuners X-rayed and found that it was a circuit
board and a resistor, with a few other random parts in
the potting material. After that article was published,
Maxxcom sort of dissapeared. I'm suprized to see them
back...
'Doc

1822. Re: Pattern of *Tri-Di-Pole*+++

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 17:26:50 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <kVTw9.11066$h_4.1724782@news20.bellglobal.com>
Source record: 132061

"Bill"
> Several years back, I came up with a general use
> dipole for SWL's that I named the "Tri-Di-Pole".
> The "Tri" meant a third wire element connected
> to the ground side of the dipole at the appex,
> with this wire running straight done to be connected
> to a ground rod.

Rule of Thumb #1: Always keep your ground wires as short as possible.
Rule of Thumb #2: Install your antennas as high as possible.

Uh oh...

1823. SGC 237 tuner question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 17:55:01 UTC
From: jder8745@aol.com
Message-ID: <20021102125501.16864.00000049@mb-bg.aol.com>
Source record: 132062

Howdy,

Anyone using one? Please give me a report/evaluation.

tnx es 73 de Jack, K9CUN

1824. Re: MaxComm antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 18:10:28 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC41514.2FDA6384@ieee.org>
Source record: 132063

"J. Harvey" wrote:
>
> "CAM"
> > You're right, Steve, a dummy load doesn't have any knobs.
>
> To be completely fair, it isn't THAT bad. It should radiate about half the
> power fed to it (excluding other system losses). A good (well shielded)
> dummy load would obviously radiate much less.

Let's say you are using one with a one wavelength dipole that has a feedpoint impedance of 6000 ohms. How are you going to radiate half your power? Seems you are talking about an antenna that is already nearly resonant and using the MaxComm for broadbanding. If that's what you are talking about, I agree. That's essentially why a double bazooka is broad banded.

> For a yacht, being 3dB down in output power might be made up by the
> wonderful salt water ground plane of the ocean.

You seem to assume (without proof) that it will radiate half the power and then say radiating half the power is not too bad. It will not radiate half the power when it is used with an antenna with a feedpoint impedance of 6000 ohms or one with a feedpoint impedance of 10-j1000 ohms. The range for which it will radiate 1/2 or more of the power is pretty narrow.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1825. Re: Inverted L and Radials

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 19:23:24 UTC
From: Kanberi <pti@capnet.com>
Message-ID: <3DC4262C.FB5B40B3@capnet.com>
Source record: 132067

I have a Inv-L for 160 and have 3 radials. Two of them are
about 80+ feet long and the other is about 40 m.
Don't worry about the length just put down at least 3 mostly
under the horizontal part of the L.
Don't worry about it. Mine works great. Sometimes 2-3 S-Units
better than my R5.

Pete Ritter wrote:

> I want to add radials to my new inverted L antenna. The antenna runs from
> the ground up the back of the house and then across the roof. The vertical
> portion is about 9 meters (30 feet) long and the horizontal about 13 meters
> (45 feet). It is fed with coax through a lightning arrestor which is
> clamped to a ground rod. The antenna tuner is at the other (rig) end of
> the coax. I want to work all bands 160(yeah, sure!)-10 if possible.
>
> I can install only 3 runs of radials. Two runs would be 180 degrees apart
> from each other and the other 90 degrees from those. What would be better?
>
> 1. Each run consisting of one wire as long as possible.
> 2. Each run consisting of one wire of length (how long?).
> 3. Each run consisting of a bundle of (insulated) wires, one tuned
> to each band of interest (1/4 lamda?).
> 4. Your suggestion?
>
> Would I see an efficiency improvement if I were to install an automatic
> tuner between the coax and the ground end of the L (over that of a manual
> tuner at the rig end of the coax)?
>
> Thanks for your suggestions and observations.
>
> Pete WB5KLY
>
> --
> *
> * This Space For Hire
> *

1826. Re: MaxComm antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 19:24:41 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <PDVw9.11556$h_4.1749379@news20.bellglobal.com>
Source record: 132065

"J. Harvey" wrote:
> <referring to the maxcomm 3dB attenuator>
> it should radiate about half the power fed to it
> (excluding other system losses).

"CAM" responded:
> Let's say you are using one with a one wavelength
> dipole that has a feedpoint impedance of 6000 ohms.
> How are you going to radiate half your power?
> <etc. - snip - refer to original if req'd.>

Your point is valid - I was thinking about reasonable antenna lengths and reasonable feedpoints. Obviously the ~3dB attenuation would have to vary with antenna feedpoint impedance. This could be analysed and plotted I suppose. I wonder if they have already optimised the design in this respect ? ...nah, not likely.

A real antenna tuner is obviously better than a maxcomm. I'm still of the opinion that a maxcomm would be better (for some applications) than no tuner at all. A yacht seems a likely example where it might be a 'reasonable' tradeoff.

Their marketing approach is very discouraging to those that know what is inside the box (resistors). It is hard to support the product due to the misleading statements.

If it is from the 1980's, then I suppose the patents (if any) must be just about up. Perhaps someone could start marketing a similar 3dB attenuator with more forthcoming marketing information on the technical details and tradeoffs.

1827. Re: Antenna orientation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 19:45:10 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailnospamorama.com>
Message-ID: <DHVw9.557$eM3.539@news.bellsouth.net>
Source record: 132066

Thanks for the replies. I will give eznec a try

--
73,
Chuck
KE4ETH
Remove the obvious from Email.

"Chuck/KE4ETH" <chuck_hawks@hotmailnospamorama.com> wrote in message
news:5TGw9.1739$_u.1510@news.bellsouth.net...
> I have 2 questions about the orientation of an 80-meter dipole and an
> inverted V. Planning on a 40-10 beam at 45/50 feet for the other bands.
>
> The ends of the dipole can be running in a north/south direction at about
> 30/35 feet above the ground.Can I get a semi-omnidirectional pattern, of
> just east/west?
>
> The ends of the inverted V would be east/west. Peak at about 40 feet from
> the ground, the ends about 10 feet above the ground. Will this be
> semi-omnidirectional or mostly north/south?
>
> --
> 73,
> Chuck
> KE4ETH
> Remove the obvious from Email.
>
>
>
>

1828. Re: Ferrite beads: Does 4 X 1/4 = 1?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 20:19:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <us8crb9h2nra89@corp.supernews.com>
Source record: 132068

Ken wrote:
> (1) In using Type 77 ferrite beads on coax as an HF choke, is it
> better to use four small 1/4" long beads or one large 1" long bead
> (multiplied as necessary)?

Elsectrically it doesn't matter.

> Is it better for the beads to touch each other, or to be separated
> (say by hot melt glue or othe non-conductive material)?

Electrically it doesn't matter.

> (3) If it doesn't matter, isn't it better to separate the beads for
> better cooling?

If heating is a problem, yes, separating them should improve the cooling. It there's still too much heating, go to type 43 ferrite and increase the number of beads to compensate for the lower impedance.

I just went to the Fair-Rite web site http://www.fair-rite.com to get you a number, but it looks like they've presently got a hacker problem. I have some information on an older type, 73, but it's similar to 77. To get the same impedance with type 43 material that you'll have with type 73, you'd have to increase the number of beads by a factor of nearly 3 at 3.5 MHz, 2 at 10 MHz, or 1.2 at 30 MHz -- or a factor of about 3 to have at least as much impedance over the whole HF band. Which is why I recommend using 70 series ferrites if you can.

Roy Lewallen, W7EL

1829. Re: SGC 237 tuner question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 20:25:05 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <BwWw9.3581$z5.2588244@newssvr28.news.prodigy.com>
Source record: 132064

Jack,

I have one. It's a nice little box...especially for the price...but you must use a good ground or counterpoise otherwise rf will lock up the micro-processor. It's an unbalanced device by design...so if you need to use it with a balanced antenna, you need to isolate both the feedline and power cable with chokes.

They recommend unbalancing antennas like dipoles by making the "cold" side 5% longer. Loops are another problem...you'll need some kind of counterpoise.

For my application of feeding the driven element of a minibeam...I had to make my own tuner, since I didn't want to skew the pattern by unbalancing the element. I chose to put only coils, caps and relays at the antenna, and put the processor in the shack.

I am planning a future article describing my tuner, which uses a standard computer as the processor and controls the tuner through RS-232.

If your need is for a balanced antenna, and you don't want to build anything, you might want to look at http://www.hamware.de/hardware/tuner402/at402-e.htm . It's a German company that uses an approach similar to mine as far as keeping the electronics separate from the tuning elements, with the added advantage that it is totally balanced.

73,
Larry N8LP
www.telepostinc.com/n8lp.html

"JDer8745" <jder8745@aol.com> wrote in message
news:20021102125501.16864.00000049@mb-bg.aol.com...
> Howdy,
>
> Anyone using one? Please give me a report/evaluation.
>
> tnx es 73 de Jack, K9CUN

1830. Re: What'e your favorite method to bring coax into the shack?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 20:31:26 UTC
From: rbraddy@crosslink.net
Message-ID: <c07dab63.0211021231.5ab9f4c2@posting.google.com>
Source record: 131969

I installed a 6"x6"x4" water tight plastic box (from Lowes) on outside wall about 3 feet off the ground... Then on inside wall I installed two recessed wall boxes with blank panels on them... Then I installed six type "N" bulkhead connectors in the outside box and three on each of the two inside boxes and connected them together with RG214 cable.... It was real easy fishing the cables between the inside and outside boxes... The outside box lid has a piece of aluminum on the inside lid held in place by the bulkhead connector nuts. I run this to ground rod next to the easyup pipe... Now all my antenna leads from various roof mounted antennas come down one easyup pipe running up the side of my house next to the 6" plastic box and I have all the cables tie wraped to that pipe.

This hides all the ugly cables down the side of the house and gives me an outside ground point as well... On the inside I just run a RG214 cable from the inside wall mounted boxes to my equipment. I use right angle type N adapters to keep the cables close to the wall.... They can easily disconnected as well if you start worrying about thunderstorm...

Looks neat also...

Roy K9PHT
King George VA
****
ehsjr@bellatlantic.net wrote in message news:<3DC31126.210B281@bellatlantic.net>...
> Gary Brown wrote:
> >
> > Looking for any "hints and kinks" the group may wish to share. So far I have
> > used the dryer vent, the sewer vent pipe on the roof, and the usual hole in the
> > wall over the past 40 years. And, I've slammed the window sash down on
> > twin-lead!
> > I've also heard of metal plates and plexiglass inserts for window frames, in
> > basements.
> >
> > Thanks,
> > Gary
> > K4GPB
>
> I put a hole right through the roof. Installed phony 3" PVC
> "vent pipe" with two 90 degree curved elbows, so the opening in
> the PVC faces down. The coax goes up into the first elbow,
> horizontal through the short connecting pipe, then down through
> the roof into to the attic. I cram insulation into the first
> elbow from the outside.

1831. Re: SGC 237 tuner question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 22:08:02 UTC
From: jder8745@aol.com
Message-ID: <20021102170802.14082.00000537@mb-ce.aol.com>
Source record: 131970

Larry,

Many tnx for the reply to my post. I will use the tuner in my camping trailer with a random length of wire50 or more feet long.
There is a 3-ft length of RG-58 between the back of the rig (TS-570SG) and a UHF bulkhead connector through the wall of the trailer.

I will mount the tuner outside of the trailer so that the wire antenna will connect directly to it and use at least two counterpoise wires as per the instructions.

Since I am putting the trailer away for the winter, it may be March(!) before I get back to this project.

tnx es 73, Jack

1832. Re: Help identifying vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 22:51:10 UTC
From: Wayne Faris <wfaris@inebraska.com>
Message-ID: <3DC456DE.149335E0@inebraska.com>
Source record: 131971

Sure looks like the Hy-Gain 14AVQ that I used to have. The manual can be
downloaded at:

http://www.hy-gain.com/hy-gain/man/pdf/AV-14AVQ.pdf

Hope this helps.

Wayne KEï¿½BZ

- Q - wrote:

> Hi,
>
> Can anyone help me identify brand/model of this antenna I came across? I
> was told it was a HyGain vertical, 10-40 m, however it doesn't look much
> like the 10-40m HyGains on the website. 3 coils, and it does seem to tune
> at around 10/15/20/40 m
>
> If anyone could point me to a manual that's got tuning measurements,
> even better...
>
> Photos of the thing are at
> http://www.qsl.net/ti2dll/antenna.html
>
> 73
>
> --
> TI2DLL
> process@gamebox.net

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1833. Re: COAX supports?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-02 22:54:47 UTC
From: Wayne Faris <wfaris@inebraska.com>
Message-ID: <3DC457B7.ED4BF8D@inebraska.com>
Source record: 131972

Get an old garden hose. Cut the ends off and feed the coax through it.
I have not done this for the whole length of a roof, but have used short
chunks split and retaped around the coax for going over roof edges.
Never had a bit of problem with them.

Wayne L. Faris, KEï¿½BZ

ehsjr@bellatlantic.net wrote:

> Is there a product made for supporting coax as it
> runs across (and in contact with) the length of a
> roof? I'd like to hold it up a bit so that it
> doesn't rub against the roof shingles and wear
> them out. (I've worn them out under the coax
> once already, and I'm not going to repeat that
> mistake.) I can suspend it - but I'd much rather
> support it.
>
> Thanks for any help!

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1834. Re: Inverted L and Radials

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 00:07:02 UTC
From: K4IA <K4ia@novacoxmail.com>
Message-ID: <GMZw9.81811$gA1.2611411@news2.east.cox.net>
Source record: 131973

Think up side down. Feed your new antenna at the top in the center so you
have one half running horizontal and the other half vertical. You won't
need radials. Feed it with ladder line if you want to work all bands.
Check out http://www.cebik.com/ltv.html and
http://www.cebik.com/gup/gup26.html
"Pete Ritter" <cpritter@attbi.com> wrote in message
news:pZIw9.216259$%d2.72744@sccrnsc01...
> I want to add radials to my new inverted L antenna. The antenna runs from
> the ground up the back of the house and then across the roof. The
vertical
> portion is about 9 meters (30 feet) long and the horizontal about 13
meters
> (45 feet). It is fed with coax through a lightning arrestor which is
> clamped to a ground rod. The antenna tuner is at the other (rig) end of
> the coax. I want to work all bands 160(yeah, sure!)-10 if possible.
>
> I can install only 3 runs of radials. Two runs would be 180 degrees apart
> from each other and the other 90 degrees from those. What would be
better?
>
> 1. Each run consisting of one wire as long as possible.
> 2. Each run consisting of one wire of length (how long?).
> 3. Each run consisting of a bundle of (insulated) wires, one tuned
> to each band of interest (1/4 lamda?).
> 4. Your suggestion?
>
> Would I see an efficiency improvement if I were to install an automatic
> tuner between the coax and the ground end of the L (over that of a manual
> tuner at the rig end of the coax)?
>
> Thanks for your suggestions and observations.
>
> Pete WB5KLY
>
> --
> *
> * This Space For Hire
> *

1835. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 01:55:40 UTC
From: richardharrison@webtv.net
Message-ID: <3878-3DC4821C-269@storefull-2313.public.lawson.webtv.net>
Source record: 131975

I wrote:
"Reg has argued that high plate, collector, and drain dynamic
resistances preclude a matched load."

Reg, G4FGQ wrote:
"No I haven`t. Nor anything like it. You must have mistaken me for
somebody else."

Sorry for my faulty memory and interpretation of what Reg said.

Best regards, Richard Harrison, KB5WZI

1836. Re: SGC 237 tuner question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 02:10:06 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <2A%w9.3629$z5.2634122@newssvr28.news.prodigy.com>
Source record: 131974

I think you'll be fine with that setup, Jack.
--
73,
Larry N8LP

www.telepostinc.con/n8lp.html
"JDer8745" <jder8745@aol.com> wrote in message
news:20021102170802.14082.00000537@mb-ce.aol.com...
> Larry,
>
> Many tnx for the reply to my post. I will use the tuner in my camping
trailer
> with a random length of wire50 or more feet long.
> There is a 3-ft length of RG-58 between the back of the rig (TS-570SG) and
a
> UHF bulkhead connector through the wall of the trailer.
>
> I will mount the tuner outside of the trailer so that the wire antenna
will
> connect directly to it and use at least two counterpoise wires as per the
> instructions.
>
> Since I am putting the trailer away for the winter, it may be March(!)
before I
> get back to this project.
>
> tnx es 73, Jack
>
>

1837. Re: Low budget impedance xformer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 02:49:23 UTC
From: richardharrison@webtv.net
Message-ID: <3878-3DC48EB3-274@storefull-2313.public.lawson.webtv.net>
Source record: 131976

CAM, W5DXP wrote:
"Unfortunately, the conjugate matching theorem only aplies to linear systems and we cannot achieve more than 50% efficiency without non-linear amplifier sections---."

Transmitter output is reasonably linear. It must not be too non-linear because high-harmonic content is outlawed by regulations. Non-linear signal generation elements may be and must be combined so as eliminate distortion. Another way to avoid distortion is to filter the distortion out after it is generated.

A "Class B amplifier" often uses two non-linear devices in a combination which avoids distortion.

A "Class C amplifier" often elimnates distortion created by its efficient part-time operation by following the amplifier with a filter which screens out harmonics. The high-Q tank circuit is an example.

Best regards, Richard Harrison, KB5WZI

1838. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 03:27:37 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0211021927.67da1f4d@posting.google.com>
Source record: 131977

k1bqt@aol.com (Rick Littlefield) wrote in message
news:<20021101103920.21073.00001594@mb-fx.aol.com>...
> A couple years back, I did a fairly extensive side-by-side comparisons between
> a Moxon rectangle and an equally sited monoband Hex Beam--both home brew
> antennas on 10 meters. I found no discernable difference in performance between
> the two (my short-boom 3-element Yagi did a couple dB better than either of
> them). Considering my hex weighed less than a pound and was virtually
> invisible, I thought it was pretty impressive. No magic, though!
>

But . . but . . no magic Supergain? Jeez, what didja screw up Rick?

> Rick K1BQT

w3rv

1839. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 03:31:53 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0211021931.1e6253ad@posting.google.com>
Source record: 131978

CAM <Cecil.A.Moore@ieee.org> wrote in message news:<3DC30E0B.A5CFB894@ieee.org>...
> Rick Littlefield wrote:
> > I've heard the lip-flap about the hex beating up on much larger Yagis. However,
> > big beams with sharper patterns can exhibit fairly deep nulls at some elevation
> > angles--while "low-gainers" tend to have broader and smoother patterns. This
> > dynamic might easily fool the unwary and cause 'em to think there's magic
> > afoot.
>
> A dummy load might beat a 20 element beam in a certain direction and elevation.
> It is human nature to report only the examples that enhance one's position (and/or
> one's pocketbook). Maybe we need to launch a new newsgroup - How about
> rec.radio.amateur.antenna.wetdream?

Cecil fer God's sake will you . . . ah, never mind.

w3rv

1840. 3rd Sniper Photo:OT

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 03:36:19 UTC
From: jackinariz@webtv.net
Message-ID: <9697-3DC499B3-326@storefull-2136.public.lawson.webtv.net>
Source record: 131979

Since i've learned so much from this group, And I have so little to offer,(Knowledge Wise),I got a photo of the 3rd Sniper Suspect that I hope you will like . Jack D. KD7RUF

http://www.angelfire.com/hi5/jackdue/mystuff/3rdSniperOJ.jpg

1841. Re: 6 meter hamstick mobile?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 05:43:37 UTC
From: kc2gsk@aol.com
Message-ID: <20021103004337.29397.00002312@mb-mg.aol.com>
Source record: 131980

TRY A 2 METER 5/6 WHIP IT WILL WORK GREAT AS A 1/2 WAVE ON SIX METERS AND WILL BE BETTER THAN A HAMSTICK.

1842. What kind of cap should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 06:03:09 UTC
From: mmsya@aol.com
Message-ID: <20021103010309.05707.00002395@mb-ms.aol.com>
Source record: 131981

Hi,

I just like to express my appreciation to Roy, Bill, Tarmo, and Cam who spend some time and educate me in regard to selecting the right cap for my design. I am very grateful.

Thanks again,
John.

1843. Re: What kind of cap should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 11:31:18 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <usa2841o529d13@corp.supernews.com>
Source record: 131982

And I'd like to thank Tam, WB2TT for pointing out an excellent resource
for information about ceramic capacitors:
http://www.avx.com/prodinfo_productdetail.asp?I=12&ParentID=80 -- click
on "Capacitor, General Information". Among other good info (including
most or all of what I posted), there are some graphs showing a very
substantial change in capacitance of X7R parts with both AC and DC voltage.

Roy Lewallen, W7EL

Mmsya wrote:
> Hi,
>
> I just like to express my appreciation to Roy, Bill, Tarmo, and Cam who spend
> some time and educate me in regard to selecting the right cap for my design. I
> am very grateful.
>
> Thanks again,
> John.

1844. Re: Is there a triband

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 13:25:25 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DC523B1.C43620A8@tampabay.rr.com>
Source record: 131983

well my brother has the GP15 and says it works well on 6
i dont think you will ever find a multiband antenna that will perform as well
as a mono bander but you have to compromise somewhere
good luck

Chaos wrote:

> 70/6/2 that performs well on 6? I've had a diamond V2000 up for years now
> and although it works well on 2 and 440, 6 meters is all but useless. I'm
> looking at the Comet GP-15 but I kinda think its a cheaper version of the
> V2000.

1845. Re: What kind of cap should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 14:26:24 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC53210.7B1E9FBC@ieee.org>
Source record: 131984

Mmsya wrote:
> I just like to express my appreciation to Roy, Bill, Tarmo, and Cam who spend
> some time and educate me in regard to selecting the right cap for my design. I
> am very grateful.

So John, did you get you a Texas Aggie cap?
--
cheers, CAM http://www.qsl.net/w5dxp

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1846. Re: Help identifying vertical antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 14:48:22 UTC
From: - Q - <process@gamebox.net>
Message-ID: <pan.2002.11.03.08.48.22.146261.596@gamebox.net>
Source record: 131992

On Sat, 02 Nov 2002 16:51:10 -0600, Wayne Faris wrote:

> Sure looks like the Hy-Gain 14AVQ that I used to have. The manual can
> be downloaded at:
>
> http://www.hy-gain.com/hy-gain/man/pdf/AV-14AVQ.pdf
>
> Hope this helps.
>

I have my doubts as to whether the measurements given there will work,
given the improvements the antenna might have undergone since mine was
built, but I guess it's well worth a shot. Tnx!

--
Ti2DLL

1847. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 14:54:06 UTC
From: k1bqt@aol.com
Message-ID: <20021103095406.02546.00000883@mb-df.aol.com>
Source record: 131985

>But . . but . . no magic Supergain? Jeez, what didja screw up Rick?<

Wouldn't ANY antenna that features directivity qualify as a "Controlled Field Antenna"? By the same token, would any antenna that radiates poorly qualify as a Littlefield antenna?

Rick K1BQT

1848. Re: What'e your favorite method to bring coax into the shack?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 14:55:21 UTC
From: - Q - <process@gamebox.net>
Message-ID: <pan.2002.11.03.08.55.19.493591.596@gamebox.net>
Source record: 131993

On Tue, 29 Oct 2002 06:29:48 -0600, Gary Brown wrote:

> Looking for any "hints and kinks" the group may wish to share. So far I
> have used the dryer vent, the sewer vent pipe on the roof, and the usual
> hole in the wall over the past 40 years. And, I've slammed the window
> sash down on twin-lead!
> I've also heard of metal plates and plexiglass inserts for window
> frames, in basements.

I got myself some 1.5" EMT pipe at the hardware store and one of those turtle-shell type caps that they sell for bringing electrical cabling into the house. A few minutes of sawing later I had a hole in the roof through which I put the EMT, securing it internally to the rafters and creating the entryway into the shack. Then I simply installed the coax as if it were electrical cable.

Can't say bringing coax into the shack like that will do much for lightning protection though. I figure it's acceptable in my case, where lightning storms are infrequent and I have a couple of "more likely" targets nearby. Your mileage may vary.

--
Ti2DLL

1849. Re: 3rd Sniper Photo:OT

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 15:20:29 UTC
From: Andy KC2SSB <vhfradiobuff@yahoo.com>
Message-ID: <5lfasuon9m5ri5i1iipbsboij2udfqm2go@4ax.com>
Source record: 131986

On Sat, 2 Nov 2002 20:36:19 -0700 (MST), jackinariz@webtv.net (jack D)
wrote:

>Since i've learned so much from this group, And I have so little to
>offer,(Knowledge Wise),I got a photo of the 3rd Sniper Suspect that I
>hope you will like . Jack D. KD7RUF
>
>http://www.angelfire.com/hi5/jackdue/mystuff/3rdSniperOJ.jpg

So THAT'S where the glove came from that they stuffed in the hole in
the trunk!!!
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com

1850. HF verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 15:41:51 UTC
From: Andy KC2SSB <vhfradiobuff@yahoo.com>
Message-ID: <3ngasu00vfbordks1fk9nii06da67hdna0@4ax.com>
Source record: 131987

Hello. I am working on learning the code, so I am also starting to look for an affordable HF antenna. I currently have a G5RV that will be going up when I find the time. I was also thinking of putting up an HF vertical with as many bands possible. I can install in on my roof with no problem. Can anyone make some recommendations as to what antenna I may want to consider. Something that doesn't require radials would be perfect. I live in NJ, so it would have to be able to withstand the occasional harsh winter and hurricane/tropical storm. We usually have at least 1 severe storm per year with high winds and heavy rain.

=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-

73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com

1851. How many TVs can be fed up

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 17:05:14 UTC
From: prothol@lycos.com
Message-ID: <92c402b.0211030905.161889b9@posting.google.com>
Source record: 131988

Can I feed 2 or more TVs to only one antenna with using for example T connector? Are there any risks by doing that?

1852. Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 17:09:02 UTC
From: prothol@lycos.com
Message-ID: <92c402b.0211030909.77cc4cdc@posting.google.com>
Source record: 131989

Can I feed 2 or more TVs to only one antenna with using for example T connector? Are there any risks by doing that?

1853. Re: How many TVs can be fed up

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 17:18:14 UTC
From: Bill M <exray@no>
Message-ID: <usamdjlpelr8d4@corp.supernews.com>
Source record: 131990

Iswandi wrote:
>
> Can I feed 2 or more TVs to only one antenna with using for example T
> connector? Are there any risks by doing that?

You lose 3 db each time you split the signal. If you have good strong signal coming from your antenna there should not be a problem. For best results use a splitter made for this purpose (Radio Shack, etc).
-Bill

1854. Re: How many TVs can be fed up

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 17:32:58 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <p0nasuk7om7n00pj8vmr15cucoa8c07vgm@4ax.com>
Source record: 131991

On 3 Nov 2002 09:05:14 -0800, prothol@lycos.com (Iswandi) wrote:

|Can I feed 2 or more TVs to only one antenna with using for example T
|connector? Are there any risks by doing that?

The proper way to do this is with a power splitter, commonly known as a "two-set coupler" or a "multi-set coupler". These can be purchased almost anywhere electronics are sold. Radio Shack, Best Buy, Cicuit City, etc.

Of course you do not get something for nothing; the available signal is shared between TVs and some more is lost in the coupler itself. If you have signals that are strong enough to begin with, you will have no problem. If the signals are already marginal, then they will be much worse, and the solution is an "amplified splitter" or a "distribution amplifier."

Wes

1855. Re: Double Bazooka

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 18:51:39 UTC
From: Stevo <mrstevo99@hotmail.com>
Message-ID: <xPox9.37546$wz6.35955@fe04>
Source record: 131930

K6ZSR wrote:

> Anybody have any experience with this antenna? I have been thinking of
> putting one on 80 meters via stealthing it in a tall pine tree. However, I
> just read an article by a fellow who contends that the broadband
> characteristics of this antenna is due to the large resistive losses
> inherent with this type of antenna. As such he says it is not an efficient
> radiator. This being said, I have picked up a few articles on the net from
> some qrp operators that say the antennas works very well....What gives ?
>
> de Mike, K6ZSR

You could check Google groups and search for:

double bazooka antenna

LOTS of discussion on it already.

Stevo

1856. Dipole Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 19:04:00 UTC
From: Bill Cherepy <jcherepy@mediaone.net>
Message-ID: <kisasuc7skeeh4amjt8rn5364b7tbjunkv@4ax.com>
Source record: 131994

If a dipole is suspended with one end 60 feet above the ground and the other 75 feet up, what effect does this have on the radiation pattern? Is it tilted towards the direction of the tilt?

Thanks,

Bill WB4WTN
Bill Cherepy
Grayson, GA

1857. Re: HF verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 19:15:50 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DC575D2.3A6FE680@tampabay.rr.com>
Source record: 131996

go back to the CB store you got that D104 at and look at there antron 99
it works well with a tuner on 10-12-15-17 doesnt need radials and costs
under $80

Andy KC2SSB wrote:

> Hello. I am working on learning the code, so I am also starting to
> look for an affordable HF antenna. I currently have a G5RV that will
> be going up when I find the time. I was also thinking of putting up an
> HF vertical with as many bands possible. I can install in on my roof
> with no problem. Can anyone make some recommendations as to what
> antenna I may want to consider. Something that doesn't require radials
> would be perfect. I live in NJ, so it would have to be able to
> withstand the occasional harsh winter and hurricane/tropical storm. We
> usually have at least 1 severe storm per year with high winds and
> heavy rain.
> =-
> 73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
> Beachwood, NJ USA Grid FM29vw
> http://vhfradiobuff.tripod.com

1858. Re: Dipole Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 20:19:15 UTC
From: Gary McAdams <g.m.mcadams@worldnet.att.net>
Message-ID: <7xfx9.23589$VJ5.1395878@bgtnsc05-news.ops.worldnet.att.net>
Source record: 131997

Bill Cherepy <jcherepy@mediaone.net> wrote in ...
> If a dipole is suspended with one end 60 feet above the ground and
> the other 75 feet up, what effect does this have on the radiation
> pattern? Is it tilted towards the direction of the tilt?
>
> Thanks,
>
> Bill WB4WTN
>

Bill,

The quick answer is yes, the signals will show a slight
directivity in the direction of the tilt.

But what is more important is the height of the antenna
above ground in wavelengths. If your sloping dipole is
at one wavelength or higher above ground the effect will
be more pronounced. But, a fifteen foot difference from
end to end is not going to affect it much either.

So the answer I guess, is: It depends! Put that rascal
up and see what happens!

73 Gary WG7X

1859. Re: Dipole Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 20:38:45 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aq41gl$k8m$1@sparta.btinternet.com>
Source record: 131998

"Bill Cherepy" wrote -
> If a dipole is suspended with one end 60 feet above the ground and
> the other 75 feet up, what effect does this have on the radiation
> pattern? Is it tilted towards the direction of the tilt?
>
============================

It will not make the slightest noticeable difference!

Reg, G4FGQ

1860. Re: Dipole Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 20:41:20 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Q4-dnTpGUIY0FFigXTWcqQ@comcast.com>
Source record: 131999

Bill,

You gotta tell us how long the antenna is. If it is a160m antenna - no. If its a 10 m antenna, you got yourself a vertical.

Tam/WB2TT
"Bill Cherepy" <jcherepy@mediaone.net> wrote in message news:kisasuc7skeeh4amjt8rn5364b7tbjunkv@4ax.com...
> If a dipole is suspended with one end 60 feet above the ground and
> the other 75 feet up, what effect does this have on the radiation
> pattern? Is it tilted towards the direction of the tilt?
>
> Thanks,
>
> Bill WB4WTN
> Bill Cherepy
> Grayson, GA

1861. Re: How many TVs can be fed up

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 20:41:31 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC589FB.1BC28287@ieee.org>
Source record: 132000

Iswandi wrote:
> Can I feed 2 or more TVs to only one antenna with using for example T
> connector? Are there any risks by doing that?

There's the possibility of interference. Go to Radio Shack and buy
yourself a 3dB splitter for isolation between the receivers.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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1862. Re: Dipole Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 20:44:00 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC58A90.DC3A1592@ieee.org>
Source record: 132001

Reg Edwards wrote:
>
> "Bill Cherepy" wrote -
> > If a dipole is suspended with one end 60 feet above the ground and
> > the other 75 feet up, what effect does this have on the radiation
> > pattern? Is it tilted towards the direction of the tilt?
>
> It will not make the slightest noticeable difference!

The difference is noticeable with EZNEC. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1863. Ap-10A and Buddipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 20:45:42 UTC
From: Ersoy Yilmaz <ersoy@amatortelsiz.com>
Message-ID: <aq3sej$65vin$1@ID-161743.news.dfncis.de>
Source record: 131995

Dear Friends,

due to some restrictions, i'm not able to have a "big" antenna on
the roof. Therefore i would like to buy two antennas, which i
could also use as mobile.

1. AP-10A by Barker & Williamson.
2. Buddipole by W3FF Antennas.

They will be used at the first step for reception of 14 - 28 MHz
and
sporadicly CB qso's.

Does anybody have experience with any of this antennas and what's
the opinion like?

Best regards & 73

TA2MOG

1864. Re: Dipole Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 21:28:19 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aq44dj$6tm$1@venus.btinternet.com>
Source record: 132002

> Reg Edwards wrote:
> > "Bill Cherepy" wrote -
> > > If a dipole is suspended with one end 60 feet above the ground and
> > > the other 75 feet up, what effect does this have on the radiation
> > > pattern? Is it tilted towards the direction of the tilt?
> >
> > It will not make the slightest noticeable difference!
>
Cecil wrote -
> The difference is noticeable with EZNEC. :-)
>
>
99.9 % of the world's amateur radio population have never heard of EZNEC.
What's EZNEC? Where's the socket on your transeiver to plug it in. So just
use your plain common sense like everyone else does and listen. <big grin>

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

1865. Re: Why use barbed wire ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 21:44:27 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <%Mgx9.2108$Ve3.1644122@monger.newsread.com>
Source record: 132003

<Pappy@USA.net> wrote in message news:3DB08C1D.2B35FB3B@USA.net...
> Na, they tend to keep the bad people from getting onto your radio.

They tend to get rusty and turn into little diodes that create hash.

Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)
>
> Mike Coslo wrote:
>
> > Hey, do all those little spurs act like capacitance hats? ;^)
> >
> > - Mike KB3EIA -
>

1866. Re: Antenna Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 21:50:53 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dc59a40$0$79357$ba620e4c@news.skynet.be>
Source record: 132004

There is no damage to come from connecting 2 or more TV's to one single antenna. The only problem will come from the strength of signal because you do not respect anymore the impedance of the antenna in putting TV receivers in parallel. Consequence: possible noise (snow like) if signal is weak. Solution if signal is strong enough: a splitter.

73 de ON5MJ - Jacques.

1867. Re: JPole antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 22:25:26 UTC
From: Marty <marty11212@ibm.com>
Message-ID: <3DC5A254.E422A0E2@ibm.com>
Source record: 132005

hi

I agree with other post about the skin on the airframe, story on nova or tlc or discovery about this while ago.

If Hitler was killed before his time, the outcome ofthe war could have been very different, we all would not be here today.

I am not expert, but, he pushed aside the jet engine projects for the rocket program and conventional airplanes.

If he was taken out by sniper, or accident, etc.. others would have taken his

place and pushed forward with other weapons and research.

I am glad he did not get his way. Evil man he was.

73

CAM wrote: ..... Too bad Hitler wasn't on that dirigible.....

> Sylvan Butler wrote:
> >
> > On Wed, 30 Oct 2002 17:48:01 -0600, CAM <Cecil.A.Moore@ieee.org> wrote:
> > > Texas has a corner on the helium market. :-) They wouldn't give any
> > > to the Nazis and that's why the Hindenburg blew up.
> >
> > The Hindenburg did not "blow up", it burned. It would have burned
> > had it been helium, because it was the envelope burning before the
> > gas caught fire.
>
> Somehow, I get the impression that the hydrogen assisted the burning
> process. Helium, being inert, would have helped keep the oxygen away
> from the blaze. Too bad Hitler wasn't on that dirigible.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1868. Re: multi strand wire vs single strand copper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 22:31:30 UTC
From: R P Haviland <bobh@iag.net>
Message-ID: <6thx9.760$l8.102883@newsread1.prod.itd.earthlink.net>
Source record: 132006

Stranded wire is less likely to fail mechanically than a solid wire of the same area. The reason is that a crack can start to propagate from the surface. In a solid wire, it goes through the entire wire, for failure. In stranded wire, it goes through a strand, causing some loss in strength, and shows on inspection. Try it by bending both types across a corner a number of times.
bob w4mb

1869. Re: Modeling hose clamps, element mounts and gamma matches with NEC2?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 22:31:38 UTC
From: R P Haviland <bobh@iag.net>
Message-ID: <ethx9.761$l8.102883@newsread1.prod.itd.earthlink.net>
Source record: 132007

Insetad of trying to model the fine details of an antenna, try the
following:
1: Get the perormance you want with average element diameter, at design
height and best guess ground
2: For each element without the others present, find the resonant frequency
3: Build the elements, tapered, hose clamps, mounting plates, etc
4. One at a time, mount the elements on the boom, and measure the resonant
frequency with a grid dip meter coupled to the element, inductively near the
center, a very small capacitor near the high voltage point, usually the end
6. Adjust the element length to get the same resonant frequency as in 2,
repeat for all elements
7. Mount the elements.

Performance will be as near to calculated as you can get. Major difference
will be the difference between calculated and actual ground conditions

bob w4mb

1870. Re: What kind of cap should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 22:41:59 UTC
From: mmsya@aol.com
Message-ID: <20021103174159.00320.00000059@mb-ca.aol.com>
Source record: 132008

Hi CAM,

Not yet, but I will and test them out.
Thanks CAM,

John.

1871. Double Bazooka

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 23:02:25 UTC
From: K6ZSR <k6zsr@cox.net>
Message-ID: <5Whx9.73196$C53.3895772@news2.west.cox.net>
Source record: 132009

Anybody have any experience with this antenna? I have been thinking of putting one on 80 meters via stealthing it in a tall pine tree. However, I just read an article by a fellow who contends that the broadband characteristics of this antenna is due to the large resistive losses inherent with this type of antenna. As such he says it is not an efficient radiator. This being said, I have picked up a few articles on the net from some qrp operators that say the antennas works very well....What gives ?

de Mike, K6ZSR

1872. Re: Ap-10A and Buddipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-03 23:25:56 UTC
From: Martin Hibbs <mhibbs@ipeg.com>
Message-ID: <3DC5B082.96A398BB@ipeg.com>
Source record: 132010

Ersoy Yilmaz wrote:

> Dear Friends,
>
> due to some restrictions, i'm not able to have a "big" antenna on
> the roof. Therefore i would like to buy two antennas, which i
> could also use as mobile.
>
> 1. AP-10A by Barker & Williamson.
> 2. Buddipole by W3FF Antennas.
>

Ersoy,

I have used the AP-10A on 10 and 15 meters with good success. It is light and compact and installs and tunes easily. It is however, somewhat fragile and care needs to be taken when handling it. It does not perform as well as a larger antenna mounted high in the air, but you will make contacts with it and be able to monitor as well.

Martin...
N7MX

1873. Re: Double Bazooka

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 00:11:35 UTC
From: jgboyles@aol.com
Message-ID: <20021103191135.03421.00000175@mb-ma.aol.com>
Source record: 132011

>Anybody have any experience with this antenna?

I have never used one, but I have read quite a bit about them, probably the same article you read. The increased bandwidth is due to lossy resistive loading. The losses result in a less efficient radiator compared to a simple half wave dipole.

If I were going to use resistive loading to increase bandwidth, I would just put a suitable resistor at a half wave dipole feed point. Get the same results as a bazooka, but without all the coax and open wire (ladder) line up in the air. Finding that resistor may not be that easy though.
>some qrp operators that say the antennas works very well....What gives ?

A bazooka may make your 1 watt qrp rig sound like a 600 milliwatt rig using a standard dipole. But you could still say my bazooka antenna works very well, but compared to what? A bazooka would be very visible. If it is Stealth you are after, an 80m dipole made with #20 stranded wire insulated with your favorite color to blend in with the background ought to work.
73 Gary N4AST

1874. Re: Double Bazooka

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 00:18:31 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <d5fbsugtshqtg1ifod5f6kvv6r3vhr8tg7@4ax.com>
Source record: 132013

Here's all the info

http://home.iag.net/~w2du/Reflections2Chapter18DoubleBazooka.pdf

73,
Danny, K6MHE

On Sun, 03 Nov 2002 23:02:25 GMT, "K6ZSR" <k6zsr@cox.net> wrote:

>Anybody have any experience with this antenna? I have been thinking of
>putting one on 80 meters via stealthing it in a tall pine tree. However, I
>just read an article by a fellow who contends that the broadband
>characteristics of this antenna is due to the large resistive losses
>inherent with this type of antenna. As such he says it is not an efficient
>radiator. This being said, I have picked up a few articles on the net from
>some qrp operators that say the antennas works very well....What gives ?
>
>de Mike, K6ZSR
>

1875. Re: Dipole Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 00:29:58 UTC
From: Bill Cherepy <jcherepy@mediaone.net>
Message-ID: <bffbsuso477jsrvurpkjrr5uvhmohduskg@4ax.com>
Source record: 132012

On Sun, 03 Nov 2002 19:04:00 GMT, Bill Cherepy <jcherepy@mediaone.net>
wrote:

>If a dipole is suspended with one end 60 feet above the ground and
>the other 75 feet up, what effect does this have on the radiation
>pattern? Is it tilted towards the direction of the tilt?
>
>Thanks,
>

Thanks for all the replies. It was kind of a theoretical question. I
had a fan dipole arrangement up with one end higher than the other,
but I figured that would be too complicated to try and figure out.
Friday I managed to get the lower end higher up in the tree so that
it's now level. Yesterday, I worked 5Z4DZ on 17 meter SSB running 100
watts, so I guess it works.

73,

Bill WB4WTN

1876. Re: Double Bazooka

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 00:42:49 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <hKednfdfovqiX1igXTWc3w@comcast.com>
Source record: 132014

Mike,

If you are trying to cover all of 75/80 meters, you might want to consider a pair of crossed dipoles fed from a common coax. I never built it, but according to EZNEC simulation, a dipole of 118 feet, and a dipole of 132 feet from a common feed point should have less than 2:1 SWR from 3.5 to 4 MHz. (@50 ohms). I know 118 feet seems short, but there is interaction between the two dipoles. I did not try angles other than 90 degrees, but my guess is that something like 30 degrees might work. The nice thing about 90 degrees is that there are no real nulls.

Tam/WB2TT

"K6ZSR" <k6zsr@cox.net> wrote in message
news:5Whx9.73196$C53.3895772@news2.west.cox.net...
> Anybody have any experience ...

1877. Re: Double Bazooka

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 00:50:49 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dc5c46a$0$73802$ba620e4c@news.skynet.be>
Source record: 132015

Hi there,

Read chapter 18 of Maxwell's "Reflections II - Transmission lines & antennas". It's about double bazooka antennas. Quite interesting and well known reference in the domain.

73 de ON5MJ - Jacques.

1878. TA-33Jr Manual

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 00:56:32 UTC
From: No PC BS <RAJohnGM@worldnet.att.net>
Message-ID: <4Bjx9.23918$VJ5.1427434@bgtnsc05-news.ops.worldnet.att.net>
Source record: 132016

Can anyone supply a copy of the TA-33 Jr. manual?
Tnx, Bob

1879. Re: Double Bazooka

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 01:18:09 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC5CAD1.4BB09818@ieee.org>
Source record: 132017

K6ZSR wrote:
> Anybody have any experience with this antenna? I have been thinking of
> putting one on 80 meters via stealthing it in a tall pine tree. However, I
> just read an article by a fellow who contends that the broadband
> characteristics of this antenna is due to the large resistive losses
> inherent with this type of antenna. As such he says it is not an efficient
> radiator. This being said, I have picked up a few articles on the net from
> some qrp operators that say the antennas works very well....What gives ?

There's a half truth there. There are not "large" resistive losses in
a Bazooka. At the resonant frequency, it is about 95% efficient compared
to a dipole. You can hardly measure the difference in performance and
you are not likely to see any difference on the S-meter. But the Bazooka
bandwidth is usually overstated and is only about 1.14 times a simple
dipole. IMHO, a Bazooka is simply not worth the hassle.
--
cheers, CAM http://www.qsl.net/w5dxp

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1880. Re: What kind of cap should I use?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 01:45:57 UTC
From: richardharrison@webtv.net
Message-ID: <22126-3DC5D155-100@storefull-2312.public.lawson.webtv.net>
Source record: 132018

CAM, W5DXP wrote:
"So John, did you get a Texas Aggie cap?"

A Baylor alumnus would say there`s a tale that bears repeating:
Fellow tells a store clerk he wants a complete maroon outfit, head to toe, cap to socks.
Clerk says, "you`re an Aggie aren`t you?"
Fellow responds, "guess that was obvious because of all those maroon clothes."
Clerk says, "no, that was obvious because this is a hardware store."

Best regards, Richard Harrison, KB5WZI

1881. Can I feed my Inv.-L with ladder line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 03:05:17 UTC
From: Kanberi <pti@capnet.com>
Message-ID: <3DC5E3ED.5675FFDE@capnet.com>
Source record: 131919

I feed it at the base of a tree.
Can I run ladder line on the ground without causing a problem?

1882. Re: Can I feed my Inv.-L with ladder line?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 03:39:40 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC5EBFC.E49B01E2@ieee.org>
Source record: 131920

Kanberi wrote:
> I feed it at the base of a tree.
> Can I run ladder line on the ground without causing a problem?

Keep the ladder-line at least 4 inches away from anything except
insulators. You will lose energy if you lay it on the ground.
--
cheers, CAM http://www.qsl.net/w5dxp

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1883. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 04:13:03 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0211032013.1046228@posting.google.com>
Source record: 131921

k1bqt@aol.com (Rick Littlefield) wrote in message
news:<20021103095406.02546.00000883@mb-df.aol.com>...
> >But . . but . . no magic Supergain? Jeez, what didja screw up Rick?<
>
> Wouldn't ANY antenna that features directivity qualify as a "Controlled Field
> Antenna"? By the same token, would any antenna that radiates poorly qualify as
> a Littlefield antenna?

Eureka! I think you hit something with this one. "It doan work, it's a
Littlefield!" Yes.

>
> Rick K1BQT

w3rv

1884. Re: 144/450Mhz Antenna mounts on Jeeps

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 04:28:36 UTC
From: jayg359@aol.comNOSPAM
Message-ID: <20021103232836.11206.00003220@mb-fi.aol.com>
Source record: 131922

Only other suggestion I can give is using a lip mount bracket on the hood, opposite side then the AM/FM radio antenna. Looks similar to the radio antenna, and has a good ground plane from the hood. I've done this before with good results!

Jay Goldmark, NYS EMT-D
Communications Supervisor
Woodmere Fire District
Woodmere, LI, NY

"Enjoy Life, this is not a dress rehearsal !!!"

(remove NOSPAM to reply)

1885. Re: How many TVs can be fed up

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 04:47:30 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DC60A28.AA1B8AE9@townsqr.com>
Source record: 131923

Wes Stewart wrote:

> On 3 Nov 2002 09:05:14 -0800, prothol@lycos.com (Iswandi) wrote:
>
> |Can I feed 2 or more TVs to only one antenna with using for example T
> |connector? Are there any risks by doing that?
>
> The proper way to do this is with a power splitter, commonly known as
> a "two-set coupler" or a "multi-set coupler". These can be purchased
> almost anywhere electronics are sold. Radio Shack, Best Buy, Cicuit
> City, etc.

Have you checked prices on these small fixtures at those sources lately?
Even at dear old Walmart they're outta sight, IE three bucks for four RG59
"F" connectors, with all the other pieces also priced way up there. A few
days ago when I wired up my daughter's satellite TV system I wound up
buying all the stuff at Home Depot. For example I got ten F connectors for
a third less than the four at Walmart.
It makes sense. Home Depot sells in bulk to lots of contractors who
nowdays wire up new houses for all the home entertainment and computer
needs of the modern family, and contractors are usually price conscious.
To the other retailers this is "convenience" stuff and is priced
accordingly.

Dick

>
>
> Of course you do not get something for nothing; the available signal
> is shared between TVs and some more is lost in the coupler itself. If
> you have signals that are strong enough to begin with, you will have
> no problem. If the signals are already marginal, then they will be
> much worse, and the solution is an "amplified splitter" or a
> "distribution amplifier."
>
> Wes

1886. Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 05:29:00 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC6059C.DBCB2DBF@ieee.org>
Source record: 131924

I recently had an email interchange with someone associated with QEX
who believes reflected power cannot be extracted from a transmission
line. This is obviously an old wive's tale. Consider the following
recently used example:

100w XMTR--50 ohm coax--+---1/2WL 150 ohm feedline---50 ohm load

On the 150 ohm feedline, the steady-state forward power is 133.33w
and the reflected power is 33.33w. All one has to do to extract
the reflected power is switch the load to 150 ohms. In the length
of time it takes to clear the reflected energy from the 150 ohm
feedline, that reflected energy will heat up the 150 ohm load to
the tune of 133.33 watts, for a short time, more than the output
of the transmitter.

Of one wants to visualize this experiment in a human time frame,
make the 150 ohm feedline one second long. Then, for two seconds
after the load is switched to 150 ohms, the 150 ohm load resistor
will dissipate 133.33 watts or a total of 266.66 joules of energy
while the transmitter is putting out only 100 watts.
--
cheers, CAM http://www.qsl.net/w5dxp

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1887. Re: How many TVs can be fed up

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 05:37:41 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <221csuc5b8hvdgrj385bnqv6jp4ack3edt@4ax.com>
Source record: 131925

On Mon, 04 Nov 2002 04:47:30 GMT, Dick Carroll <dixie@townsqr.com>
wrote:

[snip]

| It makes sense. Home Depot sells in bulk to lots of contractors who
|nowdays wire up new houses for all the home entertainment and computer
|needs of the modern family, and contractors are usually price conscious.

I don't know about F connectors at HD but don't assume for a minute
that because they sell to contractors they are the lowest cost vendor.

I did a substantial addition to my house and did a lot of comparison
shopping. I didn't buy much at HD.

Another yard set me up as a contractor and made a quote upfront. At
the time, No2 BTR Doug fir 2X6X12 were $5.12 each. They were about $7
at HD and the other guys kept giving me the quoted price when I went
back for more even though the price got as high as $8. (Like
gasoline, lumber prices change on a daily basis and a real yard
charges their replacement cost + markup)

Similarly copper pipe and fitting were 25% higher at HD that a local
plumbing supplier. Copper wire was about 40% lower at a local
electrical supplier that caters to DIY.

This will only get worse as HD puts the smaller guys out of business.

1888. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 05:59:24 UTC
From: tdonaly@aol.com
Message-ID: <20021104005924.12871.00002355@mb-fk.aol.com>
Source record: 131926

>
>I recently had an email interchange with someone associated with QEX
>who believes reflected power cannot be extracted from a transmission
>line. This is obviously an old wive's tale. Consider the following
>recently used example:
>
>100w XMTR--50 ohm coax--+---1/2WL 150 ohm feedline---50 ohm load
>
>On the 150 ohm feedline, the steady-state forward power is 133.33w
>and the reflected power is 33.33w. All one has to do to extract
>the reflected power is switch the load to 150 ohms. In the length
>of time it takes to clear the reflected energy from the 150 ohm
>feedline, that reflected energy will heat up the 150 ohm load to
>the tune of 133.33 watts, for a short time, more than the output
>of the transmitter.
>
>Of one wants to visualize this experiment in a human time frame,
>make the 150 ohm feedline one second long. Then, for two seconds
>after the load is switched to 150 ohms, the 150 ohm load resistor
>will dissipate 133.33 watts or a total of 266.66 joules of energy
>while the transmitter is putting out only 100 watts.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>

Transients don't count.
73,
Tom Donaly, KA6RUH

1889. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 06:07:28 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <km3csu47ftjqibnev0c3j1luh1oqmls251@4ax.com>
Source record: 131927

On Sun, 03 Nov 2002 23:29:00 -0600, CAM <Cecil.A.Moore@ieee.org>
wrote:

>I recently had an email interchange with someone associated with QEX
>who believes reflected power cannot be extracted from a transmission
>line. This is obviously an old wive's tale.

Was this "someone" the janitor's wife?

73's
Richard Clark, KB7QHC

1890. Re: What'e your favorite method to bring coax into the shack?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 06:15:16 UTC
From: Ken Jones <KJones@Netrax.net.INVALID>
Message-ID: <Jmox9.16571$46.3244@fe01>
Source record: 131929

Randy, I'm in your corner. The rest of these methods are overly complex.
73
Ken
"Randy Ott" <randy@iscdata.com> wrote in message
news:Byyv9.1476$8J2.542788745@newssvr11.news.prodigy.com...
> Spool in one hand, beer in the other.
>
> (sorry)
>
> "Gary Brown" <gbrown@nc.rr.com> wrote in message
> news:3dbe7dcf.29884862@news2.southeast.rr.com...
> > Looking for any "hints and kinks" the group may wish to share. So far I
> have
> > used the dryer vent, the sewer vent pipe on the roof, and the usual hole
> in the
> > wall over the past 40 years. And, I've slammed the window sash down on
> > twin-lead!
> > I've also heard of metal plates and plexiglass inserts for window
frames,
> in
> > basements.
> >
> > Thanks,
> > Gary
> > K4GPB
>
>

1891. Re: How many TVs can be fed up

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 06:23:45 UTC
From: Bill M <exray@no>
Message-ID: <usc4ejrtf5ht06@corp.supernews.com>
Source record: 131928

Dick Carroll wrote:
>

> Have you checked prices on these small fixtures at those sources lately?
> Even at dear old Walmart they're outta sight, IE three bucks for four RG59
> "F" connectors, with all the other pieces also priced way up there. A few
> days ago when I wired up my daughter's satellite TV system I wound up
> buying all the stuff at Home Depot. For example I got ten F connectors for
> a third less than the four at Walmart.
> It makes sense. Home Depot sells in bulk to lots of contractors who
> nowdays wire up new houses for all the home entertainment and computer
> needs of the modern family, and contractors are usually price conscious.
> To the other retailers this is "convenience" stuff and is priced
> accordingly.
>
> Dick
>

For the record, for cable operators who obviously buy in bulk, the
cheapest of cheapo F-connectors like you find at retailers cost about
6-10 cents each. Two-way splitters of the same ilk cost about a
quarter. Decent RG-6 about 6 cents/ft, Quadshield RG6 about 12 cents.
Point being that you can often beg of your DSS or cable outfit to sell
you what you need for proper wiring and they may well be the cheapest
option.

-BM

1892. Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 06:46:46 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <aq5t2n51nao@enews4.newsguy.com>
Source record: 131932

This discussion came up awhile back with a group around here where I live. How does one explain, in laymens terms, or using an analogy of how a simple yagi antenna works? (for purposes of discussion, we will consider a simple 3 element yagi.) I and the others (as well as many here) can explain how it works in a technical manner, but none of us can explain it in the simple manner. Take this as if you were trying to explain this to someone who does not have much knowledge of radio theory, say for instance, like your grandmother or an aunt somebody like that.

Like I stated, I can explain it in the technical manner, but am trying to figure out how to explain it to average person with little to no radio theory experience...

Thanks,

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

1893. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 06:59:15 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC61AC3.7DB037C2@ieee.org>
Source record: 131931

Tdonaly wrote:
> Transients don't count.

You can burn your fingers on those transients, Tom. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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1894. Re: MaxComm antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 14:13:05 UTC
From: N2EY@AOL.COM
Message-ID: <c2356669.0211040613.4b4f4053@posting.google.com>
Source record: 131933

"J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote in message
news:<PDVw9.11556$h_4.1749379@news20.bellglobal.com>...
> "J. Harvey" wrote:
> > <referring to the maxcomm 3dB attenuator>
> > it should radiate about half the power fed to it
> > (excluding other system losses).
>
> "CAM" responded:
> > Let's say you are using one with a one wavelength
> > dipole that has a feedpoint impedance of 6000 ohms.
> > How are you going to radiate half your power?
> > <etc. - snip - refer to original if req'd.>
>
> Your point is valid - I was thinking about reasonable antenna lengths and
> reasonable feedpoints.

"reasonable" is in the eye of the beholder. I think Cecil's
one-wavelength dipole is a very reasonable length. I'd put the
feedpoint Z at around 4000 ohms rather than 6000, but that's a minor
point.

>Obviously the ~3dB attenuation would have to vary
> with antenna feedpoint impedance. This could be analysed and plotted I
> suppose. I wonder if they have already optimised the design in this respect
> ? ...nah, not likely.

The thing has two major components - a three-winding toroid and some
big resistors. The fact that they don't even specify the alleged
patents tells you something.
>
> A real antenna tuner is obviously better than a maxcomm. I'm still of the
> opinion that a maxcomm would be better (for some applications) than no tuner
> at all. A yacht seems a likely example where it might be a 'reasonable'
> tradeoff.

Maybe, but consider this example:

Boat with 33 foot backstay
Ham who wants to check into 20 meter maritime net
Feedpoint Z - about 1200 ohms

With a nice saltwater groundplane and a simple tuner, such an antenna
will be almost 100% efficient. What's the efficiency with a maxx-com -
4%? That's about 2-3 S-units of difference.
>
> Their marketing approach is very discouraging to those that know what is

> inside the box (resistors). It is hard to support the product due to the
> misleading statements.

Why does the product need misleading statements?
>
> If it is from the 1980's, then I suppose the patents (if any) must be just
> about up. Perhaps someone could start marketing a similar 3dB attenuator
> with more forthcoming marketing information on the technical details and
> tradeoffs.

I don't know if this unit has any connection to the original Maxcom
units reviewed in QST. Those units cost a lot of money - more than the
automatic SGC tuners do today, I think. Much more than CAM's "linear
tuner" idea, too. They included a scrap printed circuit board inside
the epoxy potting, btw.

They've even got competition from the "Match-All" unit.

--

Better to have a good antenna on a few bands than a poor antenna on
all bands.

73 de Jim, N2EY

1895. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 14:53:45 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dc68a04$0$73798$ba620e4c@news.skynet.be>
Source record: 131934

I.e. the current in the radiating element induces a current in the reflector just a few distance away. This current produces at its turn an electromagnetic field. To improve the overall gain, the reflector is placed in a position for which the two EM fields (radiator and reflector) will add in phase at long distance and in the plane of the yagi. same with director. But a bit too simple.

73 de ON5MJ - Jacques

1896. Re: COAX supports?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 14:56:58 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DC68AB1.607E50EA@bellatlantic.net>
Source record: 131935

Leland, 'Doc, Howard & Wayne,

Thanks for the ideas!

1897. Re: How many TVs can be fed up

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 15:10:01 UTC
From: judy <judyjudyjudy@aloha.net>
Message-ID: <3DC68DC8.945E9466@aloha.net>
Source record: 131936

hi Wes,.

Hd and other like Lowes price match, you should have brought the quote in
and you would have received same stuff at you contractor price PLUS
another 10 % off.

YOu are correct, you gotta shop around !

Wes wrote:

> On Mon, 04 Nov 2002 04:47:30 GMT, Dick Carroll <dixie@townsqr.com>
> wrote:
>
> [snip]
>
> | It makes sense. Home Depot sells in bulk to lots of contractors who
> |nowdays wire up new houses for all the home entertainment and computer
> |needs of the modern family, and contractors are usually price conscious.
>
> I don't know about F connectors at HD but don't assume for a minute
> that because they sell to contractors they are the lowest cost vendor.
>
> I did a substantial addition to my house and did a lot of comparison
> shopping. I didn't buy much at HD.
>
> Another yard set me up as a contractor and made a quote upfront. At
> the time, No2 BTR Doug fir 2X6X12 were $5.12 each. They were about $7
> at HD and the other guys kept giving me the quoted price when I went
> back for more even though the price got as high as $8. (Like
> gasoline, lumber prices change on a daily basis and a real yard
> charges their replacement cost + markup)
>
> Similarly copper pipe and fitting were 25% higher at HD that a local
> plumbing supplier. Copper wire was about 40% lower at a local
> electrical supplier that caters to DIY.
>
> This will only get worse as HD puts the smaller guys out of business.

1898. How does a tuner match parallel dipoles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 15:15:13 UTC
From: kiddi@marel.is
Message-ID: <b7cca008.0211040715.58873cf4@posting.google.com>
Source record: 131937

Hi:

I am considering putting up an inverted-V, consisting of parallel-connected dipoles for 10, 15, 20 and 40m. It may be optimistic to think that I will get a low SWR on all these bands, fed with a 50 Ohm coax through a balun. So, if there will be a (hopefully minor) mismatch, I intend to use the internal tuner of my rig to help bring the SWR down if needed.

Now, here is something I wonder about: Will the rig tuner necessarily accomplish minimum SWR by matching to the antenna that was "intended" for that band? For example, I may be operating at 28MHz, but I suppose the tuner may take control and find a match to the 7MHz wires. In that case I am not having the intended radiation pattern that I was expecting from the 28MHz dipole wires, but rather having another (less desirable) radiation pattern of 28MHz currents running in the 7MHz wires.

Does anyone have a comment?

73 de TF3KX, Kristinn

1899. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 15:51:28 UTC
From: Lionel Carter <lionelcarter@cut-this-out.freezone.co.uk>
Message-ID: <3dc6e208_1@mk-nntp-1.news.uk.worldonline.com>
Source record: 131958

I'm basically following the discussion and am happy about the concept
applied to directional antenna but how does it apply to vertical 'sticks'.
From what is said the gain figures for vertical whips etc quoted in all the
adverts are meaningless. The only reference I can think of would be a single
full wavelength antenna and my 1/2 wave, claimed to have a gain of 3.5 dB is
approx twice as good a the full wavelength one would be. Have I got that
right?

Given that antenna (passive) can't amplify, and are less than 100% efficient
due to losses, I would have thought that the 'gain' would in fact be
negative.

Lionel Carter

"artie" <silli_artie@hotmail.com> wrote in message
news:011120021546028553%silli_artie@hotmail.com...
> Here's how I teach antenna gain (from a demonstration I saw many many
> years ago -- I wish I remembered who did it so I could thank them).
>
> Think of the RF you're feeding your antenna as a nerf ball (spongy foam
> thing).
>
> Holding it in the palm of your hand, it's radiating out equally in all
> directions -- the perfect isotropic radiator.
>
> Now hold it between two fingers, thumb and middle finger at north and
> south poles, and squeeze them together.
>
> You've got a dipole radiation pattern now. Notice that the ball bulges
> out farther in some places, and less in some places in comparison to
> the original (unsquashed) ball. The places it bulges out larger,
> acting like a larger ball, those are the places where it has "gain"
> over an isotropic source.
>
> But you've still got the same ball -- the same amount of energy going
> into the antenna -- so all you're doing is squashing it so more of the
> ball (more energy) goes in one direction, and less goes in others.
>
> Highly directional antennas (yagis, dishes) can focus most of the
> energy in one direction, but the antenna can't *make* energy.
>
> HTH...
>
>
>

>
>
> In article <Xns92B9AB43D2347michalkunyahoocom@128.233.3.7>, Michalkun
> <no.spam@nospam.com> wrote:
>
> > Could someone explain to me what does "gain" mean? Is it how much
antenna
> > amplifies the signal that it receives?

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.408 / Virus Database: 230 - Release Date: 24/10/2002

1900. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 15:57:03 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <t00dsuo0ibtii5fa4c014ljp81p5930j4s@4ax.com>
Source record: 131938

On Mon, 04 Nov 2002 06:07:28 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

|On Sun, 03 Nov 2002 23:29:00 -0600, CAM <Cecil.A.Moore@ieee.org>
|wrote:
|
|>I recently had an email interchange with someone associated with QEX
|>who believes reflected power cannot be extracted from a transmission
|>line. This is obviously an old wive's tale.
|
|Was this "someone" the janitor's wife?

Musta' been.

Cecil touts more reflected power out than is put in, but only on a
transient basis.

How about an example where there is more reflected power output than
input on a *continuous* basis?

Consider this. An ideal three-port circulator has ports one, two and
three. Being 'ideal' it has zero loss and the direction of signal
propagation is from one to two to three and back to one. There is no
leakage in the opposite direction. Power applied to any port rotates
to the next port where it can be 1) totally reflected, 2) partially
reflected, 3) totally absorbed, all depending on the reflection
coefficient of the terminated port.

Power reflected from any port propagates on to the next port. Thus,
the circulator acts as one type (along with directional bridges and
couplers) of "signal separation devices" that are the backbone of
reflection coefficient measurement systems.

If we apply input power to port one and install a perfect short
circuit to port two, (reflection coefficient = 1 <-180 deg) *all* of
the power is reflected and travels on to port three. If we install
the elusive *perfect* termination (reflection coefficient= 0) to port
two all of the power is dissipated and none travels to port three. A
load on port two with a reflection coefficient between 0 and 1
produces power at port three that is a function of the reflection
coefficient. Thus, by measuring the power at port three, the
reflection coefficient of the load on port two can be determined.

We can "calibrate" this system by installing at least two different
known terminations in turn, 1) a perfect short circuit, 2) a perfect
termination and measuring the power at port three.

NOTE TO THE JANITOR'S WIFE: The power appearing at port three due to a reflection on port two is *real* (actual) power, it is not imaginary or fictitious power.

The complex reflection coefficient, gamma, is found from:

gamma = (Zo - Zl) / (Zo + Zl)

where Zo is the system impedance and Zl it the impedance on port two.

Our simple power measuring system can't measure phase so let's assume that all values are purely resistive and set Zo to 50 and Zl to -10 ohm.

Solving the equation gives gamma = 1.5. But during our calibration, a full-scale reflection measured 1.0. We have a greater than full scale indication, thus there is more reflected power output than incident power input.

Now if I could just find a -50 ohm resistor, I'd be rich.

1901. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 15:59:22 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC6995A.45CC4D5C@ieee.org>
Source record: 131939

KC8PMX wrote:
>
> This discussion came up awhile back with a group around here where I live.
> How does one explain, in laymens terms, or using an analogy of how a simple
> yagi antenna works? (for purposes of discussion, we will consider a simple 3
> element yagi.) I and the others (as well as many here) can explain how it
> works in a technical manner, but none of us can explain it in the simple
> manner. Take this as if you were trying to explain this to someone who does
> not have much knowledge of radio theory, say for instance, like your
> grandmother or an aunt somebody like that.
>
> Like I stated, I can explain it in the technical manner, but am trying to
> figure out how to explain it to average person with little to no radio
> theory experience...

How about starting with how a flashlight focuses light?
--
cheers, CAM http://www.qsl.net/w5dxp

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1902. Re: How does a tuner match parallel dipoles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 16:05:35 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC69ACF.E7AD8274@ieee.org>
Source record: 131940

Kristinn Andersen wrote:
>
> Hi:
>
> I am considering putting up an inverted-V, consisting of
> parallel-connected dipoles for 10, 15, 20 and 40m. It may be
> optimistic to think that I will get a low SWR on all these bands, fed
> with a 50 Ohm coax through a balun. So, if there will be a (hopefully
> minor) mismatch, I intend to use the internal tuner of my rig to help
> bring the SWR down if needed.
>
> Now, here is something I wonder about: Will the rig tuner necessarily
> accomplish minimum SWR by matching to the antenna that was "intended"
> for that band? For example, I may be operating at 28MHz, but I
> suppose the tuner may take control and find a match to the 7MHz wires.
> In that case I am not having the intended radiation pattern that I
> was expecting from the 28MHz dipole wires, but rather having another
> (less desirable) radiation pattern of 28MHz currents running in the
> 7MHz wires.
>
> Does anyone have a comment?

The problem can occur if you have a 40m dipole and a 15m dipole. A lot
of hams just use their 40m dipole for 15m and omit the 15m dipole. The
problem you are envisioning should only happen at 1/2WL, 3/2WL, 5/2WL,
etc. It's not likely to happen with 40m, 20m, & 10m dipoles. Try omitting
the 15m dipole and trimming your 40m dipole for resonance on 15m.
--
cheers, CAM http://www.qsl.net/w5dxp

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1903. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 16:23:01 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC69EE5.9F9E9058@ieee.org>
Source record: 131941

Wes Stewart wrote:
> Cecil touts more reflected power out than is put in, but only on a
> transient basis.

Not exactly true, Wes, more reflected power out than is presently being put in. The excess power was put in during the initial transient build-up process. We cannot use reflected power for impedance matching purposes while at the same time extracting it. But we can indeed extract it once we stop using it for impedance matching purposes.

> How about an example where there is more reflected power output than
> input on a *continuous* basis?

No problem, Wes. Here's a quote from "Wave Mechanics of Transmission Lines, Part 3", Nov/Dec 2001 QEX. "... the forward source power of 92.831 W combines in-phase with the re-reflected power of 0.555 W, resulting in a total forward traveling power of 107.736 W." Tap off the excess 14.35 watts to run a flashlight and return the other 92.831 watts and 0.555 watts back to the system. How's that for an example? Where else can you find vector math that allows the sum of scalar components to be greater than the sum of the absolute values of the individual scalar components?

> Now if I could just find a -50 ohm resistor, I'd be rich.

How about a tunnel diode? delta-V/delta-I is negative. :-)
But watch out, it might create a black hole. After all, that excess 14.35 watts above needs another universe to flow into, hopefully the same one it flowed out of.
--
cheers, CAM http://www.qsl.net/w5dxp

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1904. Re: How does a tuner match parallel dipoles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 16:27:15 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <lpecncoDQ4MEAlugXTWcpQ@comcast.com>
Source record: 131942

Kristinn,

I have 3 dipoles, connected to a single balun, at 12, 17, and 40 meters. The SWR is very good without a tuner. If at all possible, run EZNEC on your proposed arrangement, because there is interaction. Also, when you go to tune them, you have to adjust the LONGEST DIPOLE FIRST. In my case, the length of the 40 m dipole has a large effect at 12 and 17, whereas, the latter two have almost no effect at 40 m. You need a lot of separation between the ends of the dipoles; around 5 or 6 feet will work. You can also have them out of plane. I have the 17 m dipole as a V, which supports the whole thing, the 12 meter ends up being horizontal, and the 40m is an inverted V - out of plane with the others. (Trees are too close together to hang a 40m dipole between them. The 17m dipole is a V, because of sag). There may be a problem having dipoles that are harmonically related.

Tam/WB2TT

"Kristinn Andersen" <kiddi@marel.is> wrote in message
news:b7cca008.0211040715.58873cf4@posting.google.com...
> Hi:
>
> I am considering putting up an inverted-V, consisting of
> parallel-connected dipoles for 10, 15, 20 and 40m. .....

1905. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 17:45:58 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <aq6br8$o9o$1@slb2.atl.mindspring.net>
Source record: 131943

Wes:

[snip]
> NOTE TO THE JANITOR'S WIFE: The power appearing at port three due to
> a reflection on port two is *real* (actual) power, it is not imaginary
> or fictitious power.
[snip]

I thoroughly agree with you that the power transmitted from port one around to port three, of which you speak, is in fact a real power and not, i.e. ficticious.

However, the power appearing at port three is *NOT* reflected at or from port two! That unfortunate *word* description does not clearly describe circulator dynamics rather it obfuscates.

Expressing reflection phenomena in *words* often leads to misunderstandings of the actual facts and methods of operation and is simply the unfortunate effect of the symantics [English language description.] commonly used to describe reflection mechanics.

In fact *that power* emerging at port three is not a "reflected" power at all, rather it is a "transmitted" power. It is in fact the forward power transmitted by the circulator from port one past the port two and out port three.

Using English *word* [Or any language] constructs to describe reflection mechanics is often fraught with such ambiguities. Unfortunately the whole field is rife with such symantic difficulties. Instead... to gain a deep understanding of reflection mechanics bereft of the ambiguities which have grown up around the common word descriptions of such phenomena, one must examie mathematical descriptions or examine actual schematic diagrams of the devices/systems both methods which offer an unambigous view and understanding of the underlying phenomena.

Since mathematics is arcane, electrical or electronic schematic diagrams present a more comfortable view for the engineer/technical person. This is the case for myself, even though I understand and can perform all of the mathematical manipulations of reflection mechanics, my "gut feel" for reflection mechanics comes from examining schematic diagrams labeled with currents and voltages indicated thereon. I can then *see* where the electrons are going next so to speak.

Now unfortunately a schematic diagram for a *microwave* ferrite circulator is not very illuminating, since the internal circulation mechanics for those ferrite devices operated at microwave frequencies are intra-material and are not actually shown on the schematic. This is another unfortunate situation

that adds to the mystique. Most folks would understand things a lot better if they could *see* the circulator actually circulating at DC!

To understand the circulator operation in detail it is best to study the shematic diagram of an *electronic* circulator, not a microwave ferrite device.

Such an *electronic* circulator schematic in its' simplest form consists of only three operational amplifiers arranged in a "ring" together with six resistors. Most folks when they first see this schematic are amazed at the simplicity of the circulator operation, and it even works at DC!

It has been my experience that after examination of the schematic of even the simplest active electronic circulator shematic most "techies" hit themselves on the forehead in the Italian way and say, "so that's how it works, there is no *reflection* of power involved at all, why didn't I see it before".

It's too bad that *electronic* circulators are not as widely used as *microwave ferrite* circulators. In fact although one can purchase a microwave circulator as a complete device, one cannot [at least to my knowledge] go out an purchase electronic circulator. Instead one has to make one, it's simple though since it's only made up of operational amplifiers and resistors and electronic circulators are very easy to build, test and observe and they work from DC, all the way up the upper limits of the operational amplifiers bandwidth capabilities. I myself have built tens of them myself and have put tens of thousands of them into production designs.

Observing, with nothing more than a simple VOM, the operation of a circulator while it is circulating DC power is plain downright illuminating.

For indeed, where are the so-called "reflections" at DC [zero frequency]?

--Peter K1PO
Indialantic By-the-Sea, FL.

1906. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 18:23:21 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <agedsu43pktncgpk9ogka0pou6at2749pu@4ax.com>
Source record: 131944

On Mon, 4 Nov 2002 12:45:58 -0500, "Peter O. Brackett"
<ab4bc@ix.netcom.com> wrote:

>
>However, the power appearing at port three is *NOT* reflected at or from
>port two! That unfortunate *word* description does not clearly describe
>circulator dynamics rather it obfuscates.
>

Hi Peter,

I think Wes was pretty concise and far from obscure. If you knew nothing about electronics at all, and were to accept it as magic it would still make sense. I am sure your DC circulator is as useful, but you chose to talk about its utility rather than its design. I am familiar with the implication of 3 Op Amps and 6 resistors, but few in the general readership would be (the topology is missing).

So to your point of fighting obfuscation, I would offer that Wes stands out there ahead of you. Fewer claims and more details for all, please.

73's
Richard Clark, KB7QHC

1907. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 18:30:12 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC6BCB4.2A22C8BA@ieee.org>
Source record: 131945

"Peter O. Brackett" wrote:
> For indeed, where are the so-called "reflections" at DC [zero frequency]?

Reflected voltage requires a delta-V. There are no delta-V's at steady-state DC. There certainly are delta-V's and reflections during the buildup to steady-state DC. Where is the so-called "current" on a capacitor during steady-state DC? Is current on a capacitor imaginary? If so, why can't we can throw away all our caps?
--
cheers, CAM http://www.qsl.net/w5dxp

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1908. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 18:43:27 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <gefdsu8t3o1t1ks073efah7lv2abkhrcnp@4ax.com>
Source record: 131946

On Mon, 04 Nov 2002 12:30:12 -0600, CAM <Cecil.A.Moore@ieee.org>
wrote:

>If so, why can't we can throw away all our caps?

Hi Cecil,

Why not? Gyrators can do the job too.

73's
Richard Clark, KB7QHC

1909. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 18:49:32 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aq6ffrnte1@helle.btinternet.com>
Source record: 131947

> I can explain it in the technical manner,

==========

You've already mastered the hard part better than anybody else on this
newsgroup. The rest should be child's play.

1910. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 18:49:32 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aq6ffsnte2@helle.btinternet.com>
Source record: 131948

> I can explain it in the technical manner, but am trying to
> figure out how to explain it to average person with little to no radio
> theory experience...

==========

Just tell them one of the usual old wive's tale.This newsgroup is crammed
with examples. Most folk will believe anything.

1911. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 18:52:18 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Biidnco1c8wEXFugXTWcpw@comcast.com>
Source record: 131949

Cecil,

I never worried about this, and am not sure what this proves, but you might want to look at passive telephone echo cancellers and hybrid transformers. They actually unbalance these slightly so you can hear some of your own speech (sidetone). You certainly hear the other guy, and any echo on your own signal.

Tam/WB2TT
"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DC6059C.DBCB2DBF@ieee.org...
> I recently had an email interchange with someone associated with QEX
> who believes reflected power cannot be extracted from a transmission .....

1912. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 19:24:44 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC6C97C.C702B6F9@ieee.org>
Source record: 131950

Richard Clark wrote:
>
> CAM <Cecil.A.Moore@ieee.org> wrote:
>
> >If so, why can't we can throw away all our caps?
>
> Hi Cecil, Why not? Gyrators can do the job too.

Hmmmmmm, let's see, what does a 0.1uf gyrator cost?
--
cheers, CAM http://www.qsl.net/w5dxp

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1913. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 19:27:45 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC6CA31.4672F9C8@ieee.org>
Source record: 131951

Tarmo Tammaru wrote:
>
> Cecil,
>
> I never worried about this, and am not sure what this proves, but you might
> want to look at passive telephone echo cancellers and hybrid transformers.
> They actually unbalance these slightly so you can hear some of your own
> speech (sidetone). You certainly hear the other guy, and any echo on your
> own signal.

When I was working at Intel, we had some connections to the Far East
that were so bad the reflections made communications virtually impossible.
Of course, those reflections only existed in my imagination but I sure
seem to have a vivid imagination. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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1914. Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 19:29:11 UTC
From: fantbb@yahoo.com
Message-ID: <c2a65514.0211041129.251337a3@posting.google.com>
Source record: 131952

I am modeling a 1/4 wave vertical 10 feet about ground with 4 radials.
I was wondering what the efficiency is for the antenna.
Is is it comparable to being 1 foot over salt water?

From what I have read it is susposed to be real efficient.

Thanks for any input!

Jeff

1915. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 19:36:25 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211041136.56d6d9fc@posting.google.com>
Source record: 131953

CAM <Cecil.A.Moore@ieee.org> wrote in message news:<3DC30686.643AB18@ieee.org>...
> Art Unwin KB9MZ wrote:
> > I thought the hex beam was
> > good and the owner did not get the credit he deserved.
>
> He didn't say his hex beam was good, Art. Nobody would have
> disagreed with that. He said, in so many words, that his hex
> beam was better than sex. :-) The hex beam is cute and performs
> well but it is no better than other similar beams (and certainly
> does not possess supernatural powers). I seriously doubt that
> anyone can tell the difference during normal operation between
> a hex beam and the decades old X-Beam.

Cecil,I looked at my standard programming collection and I saw that
a 2 element beam can exceed 10 db gain.If the amateur comunity cannot
fix its own problems can you blame a business man for opting for the
highest figure of gain, a main factor of interest. We stand silently
when the newcomers to the hobby declare that 'TRI" as in tribander now
refers to number of elements.
Soon I expect that these types will add 'dy' to the term 'dx' to
signify
that dy/dx means an antenna capable of radiating to another country.
It is this
that I am driving at with respect to putting our house in order
otherwise a skilled debator can spread disunity thru out the hobby in
a malicious way.
Art

1916. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 20:21:14 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211041221.74ce6db1@posting.google.com>
Source record: 131954

Roy Lewallen <w7el@eznec.com> wrote in message news:<us5ip1jh9uopb2@corp.supernews.com>...
> Art, I suspect that you'd get more attention for your point of view if
> you could tell us just how much extra gain you achieve for all your trouble.
>
> Roy Lewallen, W7EL
Roy I thank you for your invitation to disclose how the state of the
art or the envelope has been pushed out further.I have already been
fortunate this year to finally extract acceptance of the reality of
some of the possitives of my antenna when Clark was unable to debate
the truth away regarding multi band use
and actually congratulated me which does not mean anything because it
has tsaken 10 years to overcome a naysayer that is more interested in
debate rather than the truth.Now he continues the debate not only
because we do not have our house in order and he has seen a model that
he cannot refute he is able to take advantage of our disarray
regarding 'What is gain' .It has been said one
Forgive them Lord for they know not what they do" which is intended
for followers who enjoy the merth of seeing the dificulties of
others.This is not meant for those who choose to debate, lie, or what
have you for his own reasons.
Until we get our house in order these arguments will continue into
perpetuaty
especially when modelling programs which now of great interest
provides a 10 db figure of gain for two elements brings forward such
wrath.
I will take up the question you posed with respect to the atributes of
my antenna, but after ten years of trying delay, at the moment is not
going to hurt.
Obviously after reading 'What is gain' time will be better spent in
explaining
how this disorder was created in the first place in a posting directed
at you
as an engineer where I will show you and other intelligent people how
ignorance of history is having an effect on our hobby today.
Hope you had a good weekend with the contest,my weekend was used to
full fill the wishes of my wife in return for antenna time that I have
taken.
Regards
Art

1917. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 20:30:40 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211041230.4614705b@posting.google.com>
Source record: 131955

"KC8PMX" <kc8pmx@NOSPAMdiamondcs.net> wrote in message
news:<aq5t2n51nao@enews4.newsguy.com>...
> This discussion came up awhile back with a group around here where I live.
> How does one explain, in laymens terms, or using an analogy of how a simple
> yagi antenna works? (for purposes of discussion, we will consider a simple 3
> element yagi.) I and the others (as well as many here) can explain how it
> works in a technical manner, but none of us can explain it in the simple
> manner. Take this as if you were trying to explain this to someone who does
> not have much knowledge of radio theory, say for instance, like your
> grandmother or an aunt somebody like that.
>
>
> Like I stated, I can explain it in the technical manner, but am trying to
> figure out how to explain it to average person with little to no radio
> theory experience...
>
>
> Thanks,
Ryan I feel your pain and fully understand the difficulties that you
are encountering.Unfortunately our 'house' is in some disorder to even
explain
"gain" in quantative terms, this place barriers for a realistic
tutorial.

Art KB9MZ.....XG

1918. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 20:32:34 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC6D962.E22A5677@ieee.org>
Source record: 131956

Jeffdeham wrote:
>
> I am modeling a 1/4 wave vertical 10 feet about ground with 4 radials.
> I was wondering what the efficiency is for the antenna.
> Is is it comparable to being 1 foot over salt water?

Since you didn't tell us the frequency, nobody will be able to answer
your question. If it is 1/2WL in the air, it will perform pretty well.
If it is 0.04WL in the air, it will perform rather poorly.
--
cheers, CAM http://www.qsl.net/w5dxp

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1919. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 20:45:41 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC6DC75.49A3B390@ieee.org>
Source record: 131957

Art Unwin KB9MZ wrote:
> Cecil,I looked at my standard programming collection and I saw that
> a 2 element beam can exceed 10 db gain.

"10 db" over what?. The lowly 1/2WL dipole can achieve 8dBi gain over average ground. Adding one element should increase that to 11dBi over average ground. A two element beam with only 10dBi gain over average ground is less gain than a standard 2-element beam. There's no magic or supergain in the hexbeam. It fits right where it should in the overall scheme of antennas and has some mechanical advantages to boot. There is no need to exaggerate its capabilities.
--
cheers, CAM http://www.qsl.net/w5dxp

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1920. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 21:12:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <usdol629sgaab7@corp.supernews.com>
Source record: 131959

Art Unwin KB9MZ wrote:
>
> Cecil,I looked at my standard programming collection and I saw that
> a 2 element beam can exceed 10 db gain. . .

Huh? Are you saying that a 2 element beam can exceed 10 dB gain relative to a dipole in the same environment?

If you can demonstrate this, you're on a fast track to fame and fortune!

Roy Lewallen, W7EL

1921. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 21:31:25 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3DC6E71B.4760F0@bellatlantic.net>
Source record: 131960

KC8PMX wrote:
>
> This discussion came up awhile back with a group around here where I live.
> How does one explain, in laymens terms, or using an analogy of how a simple
> yagi antenna works? (for purposes of discussion, we will consider a simple 3
> element yagi.) I and the others (as well as many here) can explain how it
> works in a technical manner, but none of us can explain it in the simple
> manner. Take this as if you were trying to explain this to someone who does
> not have much knowledge of radio theory, say for instance, like your
> grandmother or an aunt somebody like that.
>
> Like I stated, I can explain it in the technical manner, but am trying to
> figure out how to explain it to average person with little to no radio
> theory experience...
>
> Thanks,
>
> --
> Ryan, KC8PMX
> FF/MFR
> REMOVE "NOSPAM" in email address to reply.

Tell her a yagi focuses "radio waves" similar
to a lens that focuses light.

1922. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 21:49:24 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC6EB64.4CC8C45B@ieee.org>
Source record: 131961

Lionel Carter wrote:
>
> I'm basically following the discussion and am happy about the concept
> applied to directional antenna but how does it apply to vertical 'sticks'.
> From what is said the gain figures for vertical whips etc quoted in all the
> adverts are meaningless. The only reference I can think of would be a single
> full wavelength antenna and my 1/2 wave, claimed to have a gain of 3.5 dB is
> approx twice as good a the full wavelength one would be. Have I got that
> right?
>
> Given that antenna (passive) can't amplify, and are less than 100% efficient
> due to losses, I would have thought that the 'gain' would in fact be
> negative.

Many vertical antennas, especially at the higher frequencies, use linear
end-to-end phasing to achieve gain. If the antenna is made wavelengths long
with phasing coils in between the radiating elements, one can achieve a
flatter doughnut pattern. My 2x4MAX is supposed to have 12dB gain over
a 1/4WL vertical on 70 cm, i.e. a very flat doughnut shape that multiplies
the power by 16 times the ground wave of a 1/4WL vertical.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1923. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 21:55:18 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC6ECC6.C29C6839@ieee.org>
Source record: 131962

Roy Lewallen wrote:
>
> Art Unwin KB9MZ wrote:
> >
> > Cecil,I looked at my standard programming collection and I saw that
> > a 2 element beam can exceed 10 db gain. . .
>
> Huh? Are you saying that a 2 element beam can exceed 10 dB gain relative
> to a dipole in the same environment?

Roy, Art didn't say 10 "dBd". I think we can safely assume it is 10 dBi
over ground, the same gain my 80m dipole achieves on 10m and also the
same gain a 10m EDZ dipole will produce over average ground.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
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1924. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 21:57:41 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC6ED55.757B51E5@ieee.org>
Source record: 131963

ehsjr@bellatlantic.net wrote:
> Tell her a yagi focuses "radio waves" similar
> to a lens that focuses light.

I hear that a galaxy can act as a gravity lens to focus light.
How many wavelengths across is a galaxy? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1925. Re: HF verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 22:29:18 UTC
From: dt@dt.prohosting.com
Message-ID: <un0oprmtd.fsf@dt.prohosting.com>
Source record: 131964

If you're interested in building your own, I have a design that is resonant on 20, 15 and 10 meters, without traps. I've never tested it on 12 or 17m, but I'm sure that at the very least it would be ok on those bands with a tuner. It does require radials but it's not super tall (3.5m) nor are the radials super long (also 3.5m).

http://dt.prohosting.com/hacks/antenna

David
N5IZU

1926. Re: HF verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-04 22:53:40 UTC
From: Pappy@USA.net
Message-ID: <3DC6FA74.8890E8D3@USA.net>
Source record: 131965

Hi Andy, I just bought the GAP Titan DX, it covers 80 thru 10 meters. It does NOT require radials. Presently is is laying on wooden saw horses and it receives quite well. I will be putting it up toward the end of the week when the weather is much nicer. I am going to ground mount it for the time being, if I feel I need more distance I will place it on a 20' heavy wall pipe.
It weights 25 pounds and it 25' long, it's easy to assemble. You should be able to enjoy the greater majority of the bands.

Sorry for the top posting, I was there and just began typing.

73's

Andy KC2SSB wrote:

> Hello. I am working on learning the code, so I am also starting to
> look for an affordable HF antenna. I currently have a G5RV that will
> be going up when I find the time. I was also thinking of putting up an
> HF vertical with as many bands possible. I can install in on my roof
> with no problem. Can anyone make some recommendations as to what
> antenna I may want to consider. Something that doesn't require radials
> would be perfect. I live in NJ, so it would have to be able to
> withstand the occasional harsh winter and hurricane/tropical storm. We
> usually have at least 1 severe storm per year with high winds and
> heavy rain.
> =-
> 73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
> Beachwood, NJ USA Grid FM29vw
> http://vhfradiobuff.tripod.com

1927. ??Constructing an external antenna for cell phone??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 00:02:07 UTC
From: Mark <mhopkins@iei.net>
Message-ID: <ek1esugqgphpathdbkfe5p5h1a7b94nlgr@4ax.com>
Source record: 131870
Cross-posted to: alt.cellular.motorola,alt.cellular.tech,alt.cellular.verizon,rec.radio.amateur.antenna,rec.radio.shortwave

I found this "pin out" diagram for my phone:

Motorola StarTAC butt plug Pin-Out diagram

I assume *NO* responsibility
1) GND Connected with 22pf to pin 3
2) RF out
3) GND Connected with 33 pf to pin 8, 33 pf to pin 1, 33 pf to pin 7
4) BAT_FDBAK
5) MAN_TEST connected with 10k to L275
6) RS232_TX - connected to MCU SPI bus
7) RS232_RX - connected to MCU SPI bus
8) AUDIO_IN
9) AUDIO_OUT
10) GNDA (Ground reference) Connected with 33 pf to pin 13, 33 pf to pin 14
11) UPLINK -|
12) DOWNLINK -|- DSC bus connected to the BIC
13) DSC_EN_B -|
14) EXT_B+
15) GND

But I don't understand where to solder the coax shield?? Do I just connect it to the ground?? For that matter, why can't I just unscrew my cell phone's antenna and stuff the coax into the phone in its place (crude I know)?!?!

I was also wondering about the antennas for cordless phones; I know it's against the rules to add an external antenna to my 2.4 GHz phone base but, (rhetorically speaking) how would you ground the coax shield on a phone with just a "metal stick" for an antenna (if you were going to -which of course I am not)?

The background for my project:
A bunch of my buddies and I go camping in rural Southwest Indiana at a friend's "weekend property". Nobody can get cell reception there, but 2 miles down the road everything is fine. So, I bought me an antenna book and have constructed a small ground-plane antenna for 800 MHz (Verizon) use, and I am going to stick in a big-old tree out there in the woods to see if we can get reception (when we want it).

Thanks,
Mark

1928. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 00:04:11 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <%VDx9.46210$Mb3.2255100@bgtnsc04-news.ops.worldnet.att.net>
Source record: 131967

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DC69EE5.9F9E9058@ieee.org...

>
> No problem, Wes. Here's a quote from "Wave Mechanics of Transmission
> Lines, Part 3", Nov/Dec 2001 QEX. "... the forward source power of
> 92.831 W combines in-phase with the re-reflected power of 0.555 W,
> resulting in a total forward traveling power of 107.736 W." Tap
> off the excess 14.35 watts to run a flashlight and return the
> other 92.831 watts and 0.555 watts back to the system. How's that
> for an example?

Question:

>Where else can you find vector math that allows the
> sum of scalar components to be greater than the sum of the absolute
> values of the individual scalar components?
>

Given that the question is directly related to determining the scalar power that results from the superposition of two vector voltages the answer is: In every basic electric circuit text book that discusses the concept of superposition and power.

When two vector voltages, V1 and V2 superimpose, the total vector voltage, VT, will be equal to the vector sum of V1 + V2. The total scalar power that results from the vector sum of V1 + V2 will not be equal to the algebraic sum of P1 + P2 unless the vector voltages V1 and V2 are 90 degrees out of phase. If you are dealing with only the scalar powers P1 and P2, the total power that results from the vector addition of V1 + V2 will be given by P1 + P2 + 2 Sqrt(P1) Sqrt(P2) Cos(T), where T is the phase angle difference between V1 and V2.

The vector math that Cecil refers to in the quoted QEX example relates to power and voltage. The |VT| which is equal to |V1+V2|, will not be greater than the sum of |V1| + |V2|. However, the scalar power, which is a function of |VT|^2 (or |V1 + V2|^2) can be greater than the sum of the individual powers P1 + P2. From a vector perspective, this is equivalent to the fact that |V1+V2|^2 can be greater than |V1|^2 + |V2|^2. I.E. If V1 = 5 and V2 = 3, then VT = 8. VT^2 = 64, which is greater than 5^2 + 3^2 = 34.

Cecil, its not that |V1+V2| > |V1| + |V2|, its that |V1+V2|^2 can be > |V1|^2 + |V2|^2. There is nothing wrong with this vector math.

And I promise that this will be the last post from me on this subject.

Steve VE9SRB

1929. Why is capacitive end loading more efficient than coils?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 00:09:02 UTC
From: fantbb@yahoo.com
Message-ID: <c2a65514.0211041609.519ee1c8@posting.google.com>
Source record: 131968

I was wondering why capacitive end loading is more efficient than
loading with coils?
Is it due to the coils wasting energy due to resistance to changes of
voltage/current within the coils?
Is that where the losses occur?

Amazing the things that keep you up at night. 8-)

73!

Jeff

1930. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 00:13:54 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aq72g1$i8m$1@venus.btinternet.com>
Source record: 131869

> Since you didn't tell us the frequency, nobody will be able to answer
> your question. If it is 1/2WL in the air, it will perform pretty well.
> If it is 0.04WL in the air, it will perform rather poorly.
=======================================

And if they are buried radials, and only 4 of them, it could be a very sick antenna.

On the other hand, even if the questioner had disclosed the all-important (to Guus) frequency, he would not have been answered with info of any greater accuracy or usefulness to him or to anybody else.

I don't like Accuracy. Uncertainy is often a better word. At least Uncertainties accumulate but Accuracies does not.

The questioner did ask about 1 foot above salt water. He didn't say what the salinity was. But the Guru's all know what salinity he has in mind in the same way as they have a sufficiently accurate idea what the frequency is in the first part of the question. (space left here for nit-pickers).

So for Jeffdeham's benefit, without any great personal experience in the matter, I would hazard a guess that an antenna above sea or oceanic water, at any height, has a radiating efficiency of 95 percent (almost perfect). The effect of height above water would be to change the radiation pattern of a vertical (which most people think they know but don't) in the vertical direction. And this to most people, I imagine, wouldn't matter very much unless they intended to use highly directional beams.

==========================
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========================

1931. Re: Why is capacitive end loading more efficient than coils?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 00:44:49 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aq74a0$sl6$1@helle.btinternet.com>
Source record: 131871

Take a look at program TOPHAT2 available in a few seconds from website
below.

The answer to your question is that loading coils have loss (HF loss
resistance and proximity-effect of the wire) and loading capacitors do not.
Makes sense ?
--
==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========
"Jeffdeham" <fantbb@yahoo.com> wrote in message
news:c2a65514.0211041609.519ee1c8@posting.google.com...
> I was wondering why capacitive end loading is more efficient than
> loading with coils?
> Is it due to the coils wasting energy due to resistance to changes of
> voltage/current within the coils?
> Is that where the losses occur?
>
> Amazing the things that keep you up at night. 8-)
>
> 73!
>
> Jeff

1932. Re: Ap-10A and Buddipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 00:53:24 UTC
From: Ersoy Yilmaz <ersoy@amatortelsiz.com>
Message-ID: <aq6v19$73o3d$1@ID-161743.news.dfncis.de>
Source record: 131966

"Martin Hibbs" <mhibbs@ipeg.com> wrote in message
news:3DC5B082.96A398BB@ipeg.com...
>
>
> Ersoy Yilmaz wrote:
>
> > Dear Friends,
> >
> > due to some restrictions, i'm not able to have a "big"
antenna on
> > the roof. Therefore i would like to buy two antennas, which i
> > could also use as mobile.
> >
> > 1. AP-10A by Barker & Williamson.
> > 2. Buddipole by W3FF Antennas.
> >
>
> Ersoy,
>
> I have used the AP-10A on 10 and 15 meters with good success.
It is
> light and compact and installs and tunes easily. It is
however,
> somewhat fragile and care needs to be taken when handling it.
It does
> not perform as well as a larger antenna mounted high in the
air, but you
> will make contacts with it and be able to monitor as well.

Martin,

appreciated to read your posting. Thank you. Sounds ok for me.
Since the idea is to setup the AP-10A on the roof (instead of a
long vertical, which i'm not asked to do), it will be a good
solution, besides Buddiople.

TNX

Ersoy

> Martin...
> N7MX
>

1933. Re: Why is capacitive end loading more efficient than coils?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 01:00:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <use62blhjr6hd5@corp.supernews.com>
Source record: 131872

There are a couple of reasons. One is that with inductive loading, relatively heavy current flows through a single conductor. In a top hat, the current is divided among several wires. Consequently, the conductor loss is lower in the loading component itself.

When an antenna is ground mounted, top loading also reduces the loss in another, and usually more significant, way. Top loading modifies the current distribution on the antenna, making it more uniform along the wire than it is with inductive loading. (It's more "spread out" along the wire instead of being large at the base and small at the top.) So for a given applied power or radiated field, you have less current at the feed point. The ground system current equals the feed point current, so top loading results in less ground loss. In terms of radiation resistance, top loading increases the radiation resistance, which is just another manifestation of the same effect.

Roy Lewallen, W7EL

Jeffdeham wrote:
> I was wondering why capacitive end loading is more efficient than
> loading with coils?
> Is it due to the coils wasting energy due to resistance to changes of
> voltage/current within the coils?
> Is that where the losses occur?
>
> Amazing the things that keep you up at night. 8-)
>
> 73!
>
> Jeff

1934. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 01:03:34 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <ln4esuod8bkun5pfspnmstjed4t3q0djsq@4ax.com>
Source record: 131873

On Mon, 04 Nov 2002 10:23:01 -0600, CAM <Cecil.A.Moore@ieee.org>
wrote:

|Wes Stewart wrote:
[snip]
|
|> Now if I could just find a -50 ohm resistor, I'd be rich.
|
|How about a tunnel diode? delta-V/delta-I is negative. :-)
|But watch out, it might create a black hole. After all, that
|excess 14.35 watts above needs another universe to flow into,
|hopefully the same one it flowed out of.

Actually, the circuit I was thinking of when I wrote the prior message
uses Impatt diodes to provide the negative resistance.

I am very familiar with the transmitter in the AIM-54C Phoenix missile
which uses a five-port circulator and three stages of Impatt
"amplification."

In this case, the Impatt stages were actually pulsed oscillators that
injection locked to the input signal and therefore appeared for all
intents to be amplifiers.

In operation, a phase-locked Gunn oscillator drives port one. Port
two has a single-diode Impatt stage that drives port three. Port
three has a three-diode Impatt stage that drives port four. Port four
has a 16-diode Impatt stage that drives port five. To make it even
more fun, all of these had pulsed current sources.

Trust me that in the early 1980's matching 16 Impatts to operate
together in the proper mode was really pushing the state of the art.

I've also measured a quite a few microwave transistor S-parameters
where |S11| was greater than one. More reflected than was input.

1935. Re: MaxComm antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 01:18:11 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <o%Ex9.2732$3e2.518201@news20.bellglobal.com>
Source record: 131874

"N2EY"
>> <CAM's> point is valid - I was thinking about
>> reasonable antenna lengths and reasonable feedpoints.
>
> "reasonable" is in the eye of the beholder. I think
> Cecil's one-wavelength dipole is a very reasonable
> length. I'd put the feedpoint Z at around 4000 ohms
> rather than 6000, but that's a minor point.

I meant reasonable feedpoint as in 'reasonably-low impedance'. Sorry. And, to save bandwidth, I'll admit now that there is nothing inherently 'unreasonable' with a Hi-Z feedpoint provided that you take it into account and somehow match it to your rig.

> The fact that they don't even specify the alleged
> patents tells you something.

I was poking around the patent office website (www.uspto.gov) and I couldn't find anything that resembled it. Of course, one can never prove a negative. Maybe the patent (s?) has nothing to do with the basic concept.

1936. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 01:59:51 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <2i9esuopkafkp0n7i98nnkuosj5uii5kso@4ax.com>
Source record: 131875

On Mon, 04 Nov 2002 13:24:44 -0600, CAM <Cecil.A.Moore@ieee.org>
wrote:

>Richard Clark wrote:
>>
>> CAM <Cecil.A.Moore@ieee.org> wrote:
>>
>> >If so, why can't we can throw away all our caps?
>>
>> Hi Cecil, Why not? Gyrators can do the job too.
>
>Hmmmmmm, let's see, what does a 0.1uf gyrator cost?

Hmmmmmmmmmm, how much assurance are you willing to pay for?

73's
Richard Clark, KB7QHC

1937. Re: ??Constructing an external antenna for cell phone??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 02:03:00 UTC
From: "L.D." <ldj1002@grandecom.net>
Message-ID: <3DC726D4.F4EC6337@grandecom.net>
Source record: 131876
Cross-posted to: alt.cellular.motorola,alt.cellular.tech,alt.cellular.verizon,rec.radio.amateur.antenna,rec.radio.shortwave

You can probably buy what you want here
http://www.antennaworld.com/eshop/Default.ASP?WCI=ShowDefault&WCU . You
didn't ask where to get one so you may want to build one for thr fun of
it, if so go for it.
L.D.

Mark wrote:

> I found this "pin out" diagram for my phone:
> ---
> Motorola StarTAC butt plug Pin-Out diagram
>
> I assume *NO* responsibility
> 1) GND Connected with 22pf to pin 3
> 2) RF out
> 3) GND Connected with 33 pf to pin 8, 33 pf to pin 1, 33 pf to pin 7
> 4) BAT_FDBAK
> 5) MAN_TEST connected with 10k to L275
> 6) RS232_TX - connected to MCU SPI bus
> 7) RS232_RX - connected to MCU SPI bus
> 8) AUDIO_IN
> 9) AUDIO_OUT
> 10) GNDA (Ground reference) Connected with 33 pf to pin 13, 33 pf to
> pin 14
> 11) UPLINK -|
> 12) DOWNLINK -|- DSC bus connected to the BIC
> 13) DSC_EN_B -|
> 14) EXT_B+
> 15) GND
> ---
> But I don't understand where to solder the coax shield?? Do I just
> connect it to the ground?? For that matter, why can't I just unscrew
> my cell phone's antenna and stuff the coax into the phone in its place
> (crude I know)?!?!
>
> I was also wondering about the antennas for cordless phones; I know
> it's against the rules to add an external antenna to my 2.4 GHz phone
> base but, (rhetorically speaking) how would you ground the coax shield
> on a phone with just a "metal stick" for an antenna (if you were going
> to -which of course I am not)?
>
> The background for my project:
> A bunch of my buddies and I go camping in rural Southwest Indiana at a
> friend's "weekend property". Nobody can get cell reception there, but

> 2 miles down the road everything is fine. So, I bought me an antenna
> book and have constructed a small ground-plane antenna for 800 MHz
> (Verizon) use, and I am going to stick in a big-old tree out there in
> the woods to see if we can get reception (when we want it).
>
> Thanks,
> Mark

1938. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 02:14:24 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC72980.417C940A@ieee.org>
Source record: 131877

VE9SRB wrote:
> When two vector voltages, V1 and V2 superimpose, the total vector voltage,
> VT, will be equal to the vector sum of V1 + V2. The total scalar power that
> results from the vector sum of V1 + V2 will not be equal to the algebraic
> sum of P1 + P2 unless the vector voltages V1 and V2 are 90 degrees out of
> phase. If you are dealing with only the scalar powers P1 and P2, the total
> power that results from the vector addition of V1 + V2 will be given by P1 +
> P2 + 2 Sqrt(P1) Sqrt(P2) Cos(T), where T is the phase angle difference
> between V1 and V2.

Steve, I just sent you an email that will correct your voodoo math concepts.

2 Sqrt(P1) Sqrt(P2) is ***NOT*** contained in P1 and P2!!!

Please read that sentence until it soaks in.

Pfwd1 is the forward power flowing into a Z0-match point from the left. The
Z0-match point has a reflection coefficient of Rho.

Pref2 is the reflected power from the load flowing back into the Z0-match
point from the right.

Your P1 equals Pfwd1(1-Rho^2) The rest of Pfwd1 is Pfwd1(Rho^2)

Your P2 equals Pref2(Rho^2) The rest of Pref2 is Pref2(1-Rho^2)

Your 2 Sqrt(P1) Sqrt(P2) comes from and equals the rest of Pfwd1 plus the
rest of Pref2 exactly as the principle of conservation of energy requires.

2 Sqrt(P1) Sqrt(P2) is really Pfwd1(Rho^2) + Pref2(1-Rho^2) which is the energy
involved in the wave interference. At a Z0-match, these two values are equal
so we can write them as 2 Sqrt(Pfwd1(Rho^2)) Sqrt(Pref2(1-Rho^2))

By rearranging terms, it's easy to see that expression involving wave
interference energy equals

2 Sqrt(Pfwd1(1-Rho^2) Sqrt(Pref2(Rho^2) = 2 Sqrt(P1) Sqrt(P2)

Your equation is correct but your error is in coming to the conclusion that
2 Sqrt(P1) Sqrt(P2) is contained in P1 and P2. The above derivation proves
that 2 Sqrt(P1) Sqrt(P2) is NOT contained in P1 and P2. It is only a
mathematical curiosity that the equation can be written that way. You
have been fooled by your own equation. You need to rewrite Part 3 of your
QEX articles and correct those gross errors involving voodoo vector math
and violation of the conservation of energy principle.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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1939. Re: Why is capacitive end loading more efficient than coils?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 02:17:38 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC72A42.4FBD9A2B@ieee.org>
Source record: 131878

Jeffdeham wrote:
>
> I was wondering why capacitive end loading is more efficient than
> loading with coils?
> Is it due to the coils wasting energy due to resistance to changes of
> voltage/current within the coils?
> Is that where the losses occur?

The 'Q' of a coil or cap is X/R. The 'Q' of a good capacitor is
usually much higher than the 'Q' of a good coil, therefore the
cap has less loss than the coil for the same reactance.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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1940. Re: Why is capacitive end loading more efficient than coils?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 02:24:51 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC72BF3.7EF4ED47@ieee.org>
Source record: 131879

CAM wrote:
>
> Jeffdeham wrote:
> >
> > I was wondering why capacitive end loading is more efficient than
> > loading with coils?
> > Is it due to the coils wasting energy due to resistance to changes of
> > voltage/current within the coils?
> > Is that where the losses occur?
>
> The 'Q' of a coil or cap is X/R. The 'Q' of a good capacitor is
> usually much higher than the 'Q' of a good coil, therefore the
> cap has less loss than the coil for the same reactance.

Sorry, I answered the wrong question.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1941. Re: Ap-10A and Buddipole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 02:44:33 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <fC=HPeqm4kj76AE8Nz+FuLylnxCC@4ax.com>
Source record: 131880

"Ersoy Yilmaz" <ersoy@amatortelsiz.com> wrote:

>
>"Martin Hibbs" <mhibbs@ipeg.com> wrote in message
>news:3DC5B082.96A398BB@ipeg.com...
>>
>>
>> Ersoy Yilmaz wrote:
>>
>> > Dear Friends,
>> >
>> > due to some restrictions, i'm not able to have a "big"
>antenna on
>> > the roof. Therefore i would like to buy two antennas, which i
>> > could also use as mobile.
>> >
>> > 1. AP-10A by Barker & Williamson.
>> > 2. Buddipole by W3FF Antennas.
>> >
>>
>> Ersoy,
>>
>> I have used the AP-10A on 10 and 15 meters with good success.
>It is
>> light and compact and installs and tunes easily. It is
>however,
>> somewhat fragile and care needs to be taken when handling it.
>It does
>> not perform as well as a larger antenna mounted high in the
>air, but you
>> will make contacts with it and be able to monitor as well.
>
>Martin,
>
>appreciated to read your posting. Thank you. Sounds ok for me.
>Since the idea is to setup the AP-10A on the roof (instead of a
>long vertical, which i'm not asked to do), it will be a good
>solution, besides Buddiople.

You'll need easy access to the roof. Every time you change bands with the
ap-10a, you have to adjust the length of the counterpoise wire to keep the swr
down. You'll also need to change the tap on the loading coil.

Bob
k5qwg

>
>TNX
>
>Ersoy
>
>> Martin...
>> N7MX
>>

1942. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 02:52:18 UTC
From: gcd <gcdNOSPAM@austarmetro.com.au>
Message-ID: <3dc7325d@news.comindico.com.au>
Source record: 131881

Hi All,
sorry, no banana there.

lets ignore the 1/2 wavelength issue as it changes the steady state levels. Lets terminate the 150 ohm line with 150 ohm and lets assume it's lossless line.

So lets look at the 100Watt. A TX of 100W will do so into a matched conjugate load. Lets assume that the TX has an impedance of 50+j0 ohms. ie purely resistive.

So this tx can generate 100W into a load of 50 Ohm. This then equates to a source of 141.4Vrms open circuit and a source impedance off 50 +j0.

So with a 150 ohm TX line then the reflection coeff is (ZL-Zo)/(ZL+Zo) = (150-50)/(150+50) = 1/2. Just for the sake of it the VSWR would then be (1+1/2)/(1-1/2) = 3. and the TX power should be 1-(1/2)^2 = 75%.

The refelected voltage is incident voltage * reflection coeff = 141.4/2 * 1/2 =35.35V

Thus the forward travelling voltage is incident voltage + reflected voltage = 70.71 + 35.35 =106.06V.

Now lets look at power. As the 150 Ohm line is terminated the forward power is transferred and not reflected. Thus the power in the 150 ohm load is.

106.06^2 /150 = 75W just as expected

The other 25W was reflected at the junction of the 50 and 150 ohm lines and absorbed by the source impedance.

By placing a 50 Ohm load instead of 150, then there is another reflection coefficient to be determined. Probably easiest to use a smith chart based on 150 ohm and transpose the load 1/2 wavelength and then redo the above calcs on the load presented.

As far as extracting that 25W from the line then as proposed by others use a circulator isolator. The 100W is output by the TX into port 1 of a 3 port device. the 150ohm TX line is on port 2 and 75W is transmitted through, the other 25W is passed to port 3 where you would normally have a load to absorb it.

Hope this helps
Greg
VK3-XYZ

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DC6059C.DBCB2DBF@ieee.org...
> I recently had an email interchange with someone associated with QEX
> who believes reflected power cannot be extracted from a transmission
> line. This is obviously an old wive's tale. Consider the following
> recently used example:
>
> 100w XMTR--50 ohm coax--+---1/2WL 150 ohm feedline---50 ohm load
>
> On the 150 ohm feedline, the steady-state forward power is 133.33w
> and the reflected power is 33.33w. All one has to do to extract
> the reflected power is switch the load to 150 ohms. In the length
> of time it takes to clear the reflected energy from the 150 ohm
> feedline, that reflected energy will heat up the 150 ohm load to
> the tune of 133.33 watts, for a short time, more than the output
> of the transmitter.
>
> Of one wants to visualize this experiment in a human time frame,
> make the 150 ohm feedline one second long. Then, for two seconds
> after the load is switched to 150 ohms, the 150 ohm load resistor
> will dissipate 133.33 watts or a total of 266.66 joules of energy
> while the transmitter is putting out only 100 watts.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1943. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 03:20:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <usee8dd2nvm59a@corp.supernews.com>
Source record: 131882

gcd wrote:
> . . .

> The other 25W was reflected at the junction of the 50 and 150 ohm lines and
> absorbed by the source impedance.

>. . .

Careful here.

Consider a Thevenin source of 100 volts RMS in series with 50 ohms
driving a half wavelength open circuited 50 ohm line. The forward power
is 100 watts. The reverse power is 100 watts. The line is correctly
terminated at the source. Yet the dissipation in the source resistance
is zero -- none of the reverse power is absorbed by the source impedance.

What's different about your source that it absorbs the reverse power,
yet in my example it doesn't? Can you write an equation that shows how
much of the reverse power will or won't be absorbed by the source, that
will give the correct answer for both your example and mine?

Roy Lewallen, W7EL

1944. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 03:38:44 UTC
From: richardharrison@webtv.net
Message-ID: <17618-3DC73D44-109@storefull-2314.public.lawson.webtv.net>
Source record: 131883

ehsjr wrote:
"Tell her a yagi focuses "radio waves" similar to a lens that focuses light."

Yes. One could say a 3-element yagi has a director and a reflector in addition to a receiving element, the sole element connected to the radio. The director is in the desired signal path and concentrates energy on the middle receiving element. The reflector is in the opposite direction and turns around some of the energy which sweeps past the middle receiving element. Actually, it turns around much of the energy which would just pass the receiving element by and concentrates some of that energy on the receiving element. So the yagi benefits from energy picked up by all three elements if it is designed right, and it delivers much more energy to the radio than a single receiving element would.

Best regards, Richard Harrison, KB5WZI

1945. Re: Double Bazooka

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 03:50:57 UTC
From: K6ZSR <k6zsr@cox.net>
Message-ID: <BeHx9.76350$C53.4303962@news2.west.cox.net>
Source record: 131884

Thanks to all for your inputs regarding the Double Bazooka.

Mike
"K6ZSR" <k6zsr@cox.net> wrote in message
news:5Whx9.73196$C53.3895772@news2.west.cox.net...
> Anybody have any experience with this antenna? I have been thinking of
> putting one on 80 meters via stealthing it in a tall pine tree. However, I
> just read an article by a fellow who contends that the broadband
> characteristics of this antenna is due to the large resistive losses
> inherent with this type of antenna. As such he says it is not an efficient
> radiator. This being said, I have picked up a few articles on the net from
> some qrp operators that say the antennas works very well....What gives ?
>
> de Mike, K6ZSR
>
>

1946. Re: COAX supports?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 04:04:05 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0211042004.4e66c84e@posting.google.com>
Source record: 131885

ehsjr@bellatlantic.net wrote in message news:<3DC317CD.94BB1631@bellatlantic.net>...
> Is there a product made for supporting coax as it
> runs across (and in contact with) the length of a
> roof? I'd like to hold it up a bit so that it
> doesn't rub against the roof shingles and wear
> them out. (I've worn them out under the coax
> once already, and I'm not going to repeat that
> mistake.) I can suspend it - but I'd much rather
> support it.
>
> Thanks for any help!

Radio Slack has 4" long (+/-) insulated screw-in standoffs for tubular
& ribbon 300 ohm TV antenna line, should work for coax.

w3rv

1947. Hustler 4BTV Help Needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 04:23:04 UTC
From: Dan <n7slc@yahoo.com>
Message-ID: <aq7h3ertm1@terabinaries.xmission.com>
Source record: 131886

HI All,

Being fairly new to HF vertical antennas I really didn't know what to expect. Due to space limitations, I am unable to install a ground radial system. According to the 4BTV manual, satisfactory results can still be obtained without the radial system.

Here's the trouble...SWR is very low on 10M,15M, and 40M. However, on 20M the SWR is 1:1 at the bottom of the band and climbs to 2:1 at 14.166Mhz. At 14.350Mhz, the SWR is off the chart.

Any suggestions?

TIA,

Dan

1948. Re: Hustler 4BTV Help Needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 04:47:38 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC74D6A.C9C3EE21@ieee.org>
Source record: 131887

Dan wrote:
> Being fairly new to HF vertical antennas I really didn't know what to
> expect. Due to space limitations, I am unable to install a ground radial
> system. According to the 4BTV manual, satisfactory results can still be
> obtained without the radial system.
>
> Here's the trouble...SWR is very low on 10M,15M, and 40M. However, on
> 20M the SWR is 1:1 at the bottom of the band and climbs to 2:1 at 14.166Mhz.
> At 14.350Mhz, the SWR is off the chart.
>
> Any suggestions?

Use an antenna tuner above 14.166 MHz?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1949. Re: ??Constructing an external antenna for cell phone??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 05:26:44 UTC
From: noone@home.com
Message-ID: <3dc75147.21880971@64.154.60.171>
Source record: 131889
Cross-posted to: alt.cellular.motorola,alt.cellular.tech,alt.cellular.verizon,rec.radio.amateur.antenna,rec.radio.shortwave

On Mon, 04 Nov 2002 19:02:07 -0500, Mark <mhopkins@iei.net> wrote:

>I found this "pin out" diagram for my phone:
>---
>Motorola StarTAC butt plug Pin-Out diagram
>
>I assume *NO* responsibility
>1) GND Connected with 22pf to pin 3
>2) RF out
>3) GND Connected with 33 pf to pin 8, 33 pf to pin 1, 33 pf to pin 7
>4) BAT_FDBAK
>5) MAN_TEST connected with 10k to L275
>6) RS232_TX - connected to MCU SPI bus
>7) RS232_RX - connected to MCU SPI bus
>8) AUDIO_IN
>9) AUDIO_OUT
>10) GNDA (Ground reference) Connected with 33 pf to pin 13, 33 pf to
>pin 14
>11) UPLINK -|
>12) DOWNLINK -|- DSC bus connected to the BIC
>13) DSC_EN_B -|
>14) EXT_B+
>15) GND
>---
>But I don't understand where to solder the coax shield?? Do I just
>connect it to the ground?? For that matter, why can't I just unscrew
>my cell phone's antenna and stuff the coax into the phone in its place
>(crude I know)?!?!

Shield to pin 1 is fine.....

The cellphone antenna ISN'T a 50 ohm port. If you disassemble an old
phone, you'll see the antenna port is actually a little "coil", a
helical loading coil that couples from the high impedance point on the
open end of the helix to the high impedance of the end-fed whip. So,
there is no way to connect a coax. The pin hole for the helix coil is
the RF output and is probably about the right impedance, but not
necessarily. Lots of tuning is done to try to make the crappy
cellphone antennas actually radiate "something" to the cells.

>
> I was also wondering about the antennas for cordless phones; I know
>it's against the rules to add an external antenna to my 2.4 GHz phone
>base but, (rhetorically speaking) how would you ground the coax shield

>on a phone with just a "metal stick" for an antenna (if you were going
>to -which of course I am not)?

On the 2.4 Ghz WiFi band, we're having great success building beam antennas out of Pringle's Chip cans. See:
http://www.turnpoint.net/wireless/has.html
http://www.d128.com/wireless/
http://www.oreillynet.com/cs/weblog/view/wlg/448

If you look up inside the Pringles can on:
http://www.oreillynet.com/~rob/pringles/element.jpg
you'll see your 2.4 Ghz antenna. The distance to the "reflector", the can bottom is critical, by the way. The measurements are at the webpage.

Of course, in WiFi, we're interested in BEAM antennas to the local hotspot, in Egypt's case a broadband cafe.....

As far as phone range is concerned, at this high frequency, your best bet is to put a remote antenna fed with coax out of your mind and put the base unit as high up as you can get it. I know where there is one inside an inverted plastic pail 50' up a tower fed with AC power and a telephone line that works VERY well. The pail keeps the rain out and is transparent to the RF. A second "base unit" not hooked up to anything and only used as a handset charger let's the phone's batteries charged...er, ah, without climbing the tower to put the handset in the pail...(c; Range is about a mile or so....depending on how many OTHER people have similar phones on the frequencies. This one is in the country in the middle of a farm. The 2.4 Ghz phone works in the cab of the tractors anywhere on the large property this way....(c; To call the tractor from the house, simply dial the callback number and hang up briefly to make the phone in the tractor ring. Then both parties pick up, party line style, and are simply hooked to a null circuit providing DC to power the phonelines by the phone company...it's a test number. Works great from 50' up!
>
>The background for my project:
>A bunch of my buddies and I go camping in rural Southwest Indiana at a
>friend's "weekend property". Nobody can get cell reception there, but
>2 miles down the road everything is fine. So, I bought me an antenna
>book and have constructed a small ground-plane antenna for 800 MHz
>(Verizon) use, and I am going to stick in a big-old tree out there in
>the woods to see if we can get reception (when we want it).

AS this is more or less a fixed location, why don't we get a BEAM antenna to put up the tree and point MORE power to the cell site while increasing the listening gain, too!

Look at the beams on:
http://cellantenna.com/Antennas/yagi.htm
I'm very successfully using 10 element Decibel Product point-to-point paging yagis from remote beach houses on remote islands to point the

power from 3W analog bagphones running off a 12V power supply back to Charleston about 30 miles....while rejecting the connection attempts from an interfering roaming system in Savannah, GA. Set the bagphone on HOME ONLY and it locks onto Charleston, perfectly, even in heavy rain attenuation. These phones have been running for years like this....providing LOCAL telephone service back into city phones from an area covered by a bogus little POTS company where EVERYplace is long distance....and expensive.

A beam antenna up that tree, fed with 25-30' of a good quality RG-58/U coax with some nice mini-UHF connectors will work fine.....IF the phone has an RF connector on it....

Larry

Ok, who's the smartass that beamed down this
nekkid nurse?! Kirk OUT!

1950. Motorola automatic antenna tuners

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 05:28:49 UTC
From: Tom Sharples <tsharples@qorvus.com>
Message-ID: <IGIx9.13105$ar4.109657@sccrnsc03>
Source record: 131888

Hey folks, I have several of the Mot auto antenna tuners (for use with Micom XF), but no documentation. Can anyone out here give me the pinout of the screw-terminals (1 through 4) on the back of these units? One of them is +12 VDC, one is N/C, but what are the other ones (#1 and #2) for? Any help would be appreciated, thanks!

73, Tom WA6HAS

1951. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 06:00:38 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211042200.943eea0@posting.google.com>
Source record: 131890

fantbb@yahoo.com (Jeffdeham) wrote in message
news:<c2a65514.0211041129.251337a3@posting.google.com>...
> I am modeling a 1/4 wave vertical 10 feet about ground with 4 radials.
> I was wondering what the efficiency is for the antenna.
> Is is it comparable to being 1 foot over salt water?
>
> From what I have read it is susposed to be real efficient.
>
> Thanks for any input!
>
> Jeff

You don't say the frequency. The efficiency could be anywhere from
good to horrible. When you deal with elevated verticals, and radials,
you should really think in terms of wavelength above ground rather
than feet. To equal the efficiency of appx 120 radials on a ground
mount, you need to be 1/2 wave up to do it with 4 radials. At 1/4 wave
up, you need 8-10. At 1/8 wave up, 50-60.
So you can see if your antenna is for 2m, it's pretty efficient. If
it's for 160m, it's not. Barely better than having 4 radials laying on
the ground.
MK

1952. Re: How does a tuner match parallel dipoles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 06:19:26 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211042219.7d889321@posting.google.com>
Source record: 131891

kiddi@marel.is (Kristinn Andersen) wrote in message
news:<b7cca008.0211040715.58873cf4@posting.google.com>...
> Hi:
>
> I am considering putting up an inverted-V, consisting of
> parallel-connected dipoles for 10, 15, 20 and 40m. It may be
> optimistic to think that I will get a low SWR on all these bands, fed
> with a 50 Ohm coax through a balun. So, if there will be a (hopefully
> minor) mismatch, I intend to use the internal tuner of my rig to help
> bring the SWR down if needed.
>
> Now, here is something I wonder about: Will the rig tuner necessarily
> accomplish minimum SWR by matching to the antenna that was "intended"
> for that band? For example, I may be operating at 28MHz, but I
> suppose the tuner may take control and find a match to the 7MHz wires.
> In that case I am not having the intended radiation pattern that I
> was expecting from the 28MHz dipole wires, but rather having another
> (less desirable) radiation pattern of 28MHz currents running in the
> 7MHz wires.
>
> Does anyone have a comment?
>
> 73 de TF3KX, Kristinn

I wouldn't worry about it too much. If the pattern varies, their isn't
a heck of a lot you can do about it, and it likely won't hurt you much
anyway in the real world. The tuner in the rig just tunes what it sees
at the transmitter end. The same ratio of power per antenna element
will still occur no matter what the tuner does at the rig end. All the
tuner will do is increase the overall power leaving the rig, if the
rig reduced power due to high SWR. The power will go to the elements
with the closest match to 50 ohms. It will pretty much ignore elements
with an overly high or low impedance. So if you did 100 watts out with
no tuner, and 75% went to the 1/2 wave dipole, and the other 25% went
to other longer legs, if you used the tuner and jumped up to 200w
output, you would just double the numbers for each leg. The ratio will
still be the same. You would need to adjust the antenna legs
themselves to change the impedances, and thus change the ratios of
power that is divided between the elements. I'm think I'm correct on
this anyway...I'm sure someone will let me know if I'm not. If you are
running 50 ohm coax, and have a tuned 1/2 wave dipole, it will radiate
most of the power regardless of other legs unless one of the longer
dipoles just happens to be resonant also as a 3/4 wave, or whatever.
If that were the case, I would just try it and see how it works. I

don't really think it would be much of a problem. It's still going to be an efficient radiator overall. MK

1953. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 06:37:04 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <aq94d581dit@enews2.newsguy.com>
Source record: 131825

Hello Cecil.... haven't seen ya in a while in r.r.a.p. (Believe it or not, you have been missed.) Even posted a querie there.

Looks like it still is gonna be hard to try to explain to someone how those yagi's work. I can drag out complicated descriptions with formulas etc., but for some people, it goes over their head. These would either be newbies in a ham class, or like I had posted earlier, someone like a persons grandparent, or mother or whatever...

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DC6995A.45CC4D5C@ieee.org...
> KC8PMX wrote:
> >
> > This discussion came up awhile back with a group around here where I
live.
> > How does one explain, in laymens terms, or using an analogy of how a
simple
> > yagi antenna works? (for purposes of discussion, we will consider a
simple 3
> > element yagi.) I and the others (as well as many here) can explain how
it
> > works in a technical manner, but none of us can explain it in the simple
> > manner. Take this as if you were trying to explain this to someone who
does
> > not have much knowledge of radio theory, say for instance, like your
> > grandmother or an aunt somebody like that.
> >
> > Like I stated, I can explain it in the technical manner, but am trying
to
> > figure out how to explain it to average person with little to no radio
> > theory experience...
>
> How about starting with how a flashlight focuses light?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1954. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 07:07:49 UTC
From: gcd <gcdNOSPAM@austarmetro.com.au>
Message-ID: <3dc76e41@news.comindico.com.au>
Source record: 131892

Hi Roy et al,

In your example, the open cct is transposed back lamda/2 so (leaving the smith chart behind) the ZL provided to the source is ZL=-j*Zo *cotangent (2*pi/lambda *d) where Zo is the characteristic impedance of the line, d is the length in lambda. So here ZL = infinite.

Thus in this ideal situation, there is no power delivered by the source at all. Thus no dissipation in load nor source. However I see where you are going in the original example (i think)

Also note , transistors act more like norton sources, so if you have no load on your tx, the transitor dissipates all the power - so don't try this at home :)

ok, lets go that next step. If we look at the 150 Ohm tx line with the 50 ohm load, then using the smith chart we see that the impedance looking into that 150 ohm line is 50 ohm.

The thevenin source now generates 200W with 100 to the load and 100W dissipated internally as opposed to the 1st post i made where the source generates 100W with 75 into the 150 ohm load and 25W disspipated internally. (this what you were getting at Roy?)

However this is a steady state situation, for example, if this 150 ohm line were 10 millisecond long (yes a VERY long piece of lossless coax), then the mismatch at the source exists for 20 millisecond until the reflected voltages appear and then matching occurs, as it is the presence of the forward and reflected voltages & currents that present steady state. ie superposition.

So his proposal is - that for there to be 100W in the 50 ohm load then there is 133W in the 150 ohm line. ie 100W / reflection coeff = 133.33 (i think thats the idea being proposed)

There are voltages on the 150 Ohm line which represent a 133W into a 150 ohm load if you ignore phase. as has been indicated in other responses, vector addition is important.

If the load were switched at some point to 150 ohm then you have disturbed the steady state situation, now the 50 source is presented with 150 ohm load and the incident power is as above, ie 75W.(steady state)

You need to work with the voltages and current where the phase information is preserved. Thus the -1/2 reflection coefficient becomes important. You can do this manually, noting the reflections at each boundary until steady state is achieved. or use spice to do a transient simulation and you'll the

effects.

So if you turn on the tx for say 7.5 millisecond then you only get 75W into the 150 ohm line and if you switched over to a 150 ohm load you would only get 75W.

(my brain hurts - i'm too long out of university to think this hard)
Cheers
Greg
VK3-XYZ

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:usee8dd2nvm59a@corp.supernews.com...
> gcd wrote:
> > . . .
>
> > The other 25W was reflected at the junction of the 50 and 150 ohm lines
and
> > absorbed by the source impedance.
>
> >. . .
>
> Careful here.
>
> Consider a Thevenin source of 100 volts RMS in series with 50 ohms
> driving a half wavelength open circuited 50 ohm line. The forward power
> is 100 watts. The reverse power is 100 watts. The line is correctly
> terminated at the source. Yet the dissipation in the source resistance
> is zero -- none of the reverse power is absorbed by the source impedance.
>
> What's different about your source that it absorbs the reverse power,
> yet in my example it doesn't? Can you write an equation that shows how
> much of the reverse power will or won't be absorbed by the source, that
> will give the correct answer for both your example and mine?
>
> Roy Lewallen, W7EL
>

1955. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 10:38:25 UTC
From: richardharrison@webtv.net
Message-ID: <22126-3DC79FA1-304@storefull-2312.public.lawson.webtv.net>
Source record: 131893

Greg wrote:
"Also note, transistors act more like norton sources, so if you have no load on your tx, the transistor dissipates all the power---."

Connect a collector meter to observe d-c current taken versus the r-f load on the transmitter. A linear amplifier is probably "Class-B". Current at no load is only enough to avoid "crossover distortion", just a few milliamperes. As r-f loading increases, so does the current taken by the amplifier.

The amplifier is not a device which gets all the current not taken by a load.

If there is no load on a transmitter, it delivers no power.

Greg also wrote:
"The thevenin source now generates 200W with 100 to the load and 100W dissipated internally---."

No. Most of the internal resistance of the r-f source is lossless resistance and derived from the switched-off time of the transistors. A transmitter matched to its load has an efficiency greater than 50% in many cases.

Greg also wrote:
"You need to work with the voltage and current where the phase information is preserved."

Not for the steady-state. There are only forward and reverse directions of power to contend with. The transmission line is a resistance (Zo). The power delivered to the load is the same power delivered by the r-f source when line loss is negligible. That power is simply the forward power minus the reverse power, both scalars.

Best regards, Richard Harrison, KB5WZI

1956. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 12:26:25 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DC7AAAC.C6504A46@uwe.ac.uk>
Source record: 131894

Jeffdeham wrote:
>
> I am modeling a 1/4 wave vertical 10 feet about ground with 4 radials.
> I was wondering what the efficiency is for the antenna.
> Is is it comparable to being 1 foot over salt water?
>
> From what I have read it is susposed to be real efficient.
>
> Thanks for any input!
>
> Jeff

On uk.radio.amateur

Philip de Cadenet posted these two very informative links:

>
> > A "good radial system" in practice
> >would involve at least 100 buried radials in highly conductive, moist
> >soil, or immersed in salt water!
> A tuned elevated ground system using four elements can work equally as
> well.
>
> http://www.commtechrf.com/documents/nab1995.pdf
>
> http://www.arising.com.au/people/Holland/Ralph/ShortVert.htm
> --
> Philip de Cadenet G4ZOW
> Transmitters 'R' Us
> http://www.transmittersrus.com

HTH

vy 73

Andy, M3ABC

1957. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 12:38:19 UTC
From: gcd <gcdNOSPAM@austarmetro.com.au>
Message-ID: <3dc7bbb7@news.comindico.com.au>
Source record: 131895

i'd prefer to stick to the original proposal, but have commented below.look
for the **

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:22126-3DC79FA1-304@storefull-2312.public.lawson.webtv.net...
> Greg wrote:
> "Also note, transistors act more like norton sources, so if you have no
> load on your tx, the transistor dissipates all the power---."
>
> Connect a collector meter to observe d-c current taken versus the r-f
> load on the transmitter. A linear amplifier is probably "Class-B".
> Current at no load is only enough to avoid "crossover distortion", just
> a few milliamperes. As r-f loading increases, so does the current taken

>
> The amplifier is not a device which gets all the current not taken by a
> load.
>
> If there is no load on a transmitter, it delivers no power.
**
yes it delivers no power as there is no load, but it dissipates power all
the same.

NO LOAD, or no DRIVE you be the judge - I read your comment here to say if I
have a TX pumping out 100W into 50 Ohm and I remove the load, the output
stage current drops to quiescent and doesnt generate power?

do we really want to get into the physics and hybrid pi models?

in a REAL transmitter there is a matching network that matches the output
impedance of a few ohms to 50 or 75 or 300 etc etc.

if we look at the hybrid pi model output section it consists of a current
source with the output impedance across it, hence the "LIKE a norton
source". If there is drive in the base it generates beta*Iin at the
collector irrespective of the load (lets stick to simple models)

so with no load, beta*Iin must flow through the norton source impedance, it
cant share it with the load as its not there, thus more power dissipation in
the device hence - hmm i smell silicon cooking.

Yes its more complex than that, ie in the above, a short circuit means no
dissipation in the source as its norton, but we know that dont happen in the
real world.

there are s paramters to consider, coupling between input and output, the
output cannot generate infinite volts into an open circuit like a current

source, and there are emitter resitances, collector resistances etc etc
.there are real world limitiations

>
> Greg also wrote:
> "The thevenin source now generates 200W with 100 to the load and 100W
> dissipated internally---."
>
> No. Most of the internal resistance of the r-f source is lossless
> resistance and derived from the switched-off time of the transistors. A
> transmitter matched to its load has an efficiency greater than 50% in
> many cases.
**
sorry - you lost me there, internal resistance AND lossless??

This comment was made against a thevenin source, (an ideal voltage source of
0 ohm internal source impedance) with a 50 ohm resistance as the source
impedance. Yes, if a resonant ideal L & C were used then an impdeance with
no resistance could be made (parallel resonance) or infinte resisitance
(series) but this would be at 1 frequency but hey were talking ideals here
so thats ok.

In this example the thevenin source was 141.4V rms. The power delivered is
proportional to the load supplied. The "internally" referred to the 50 ohm
resistance which was the source impedance. Perhaps i should have stated that
in my mind the internal source impedance was resistive only.

>
> Greg also wrote:
> "You need to work with the voltage and current where the phase
> information is preserved."
>
> Not for the steady-state. There are only forward and reverse directions
> of power to contend with. The transmission line is a resistance (Zo).
> The power delivered to the load is the same power delivered by the r-f
> source when line loss is negligible. That power is simply the forward
> power minus the reverse power, both scalars.
>
> Best regards, Richard Harrison, KB5WZI
>

**
thats the point, scalars loose all phase information, and phase is important
even in steady state, thats how you got to steady state in the first place,
with the incident and reflected voltage and currents which have phase
information.

and hence we get back to the original question. there is 100w into the 50
ohm load, yet it is on a 150 ohm transmission line, do you then agree withth
eoriginal proposal that there is 133w incident out of the 150 ohm line and
so must be 33w reflected back from the 50 ohm load?

sorry its late here and i've been a little obtuse.
Greg

1958. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 13:33:16 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC7C89C.605DF10D@ieee.org>
Source record: 131896

gcd wrote:
> there is 100w into the 50
> ohm load, yet it is on a 150 ohm transmission line, do you then agree with
> the original proposal that there is 133w incident out of the 150 ohm line and
> so must be 33w reflected back from the 50 ohm load?

I haven't been following closely. Who the heck is disagreeing with that?
Rho is 0.5. The load accepts Pfwd(1-Rho^2) = 133.33w(.75) = 100w. The
reflected power is Pfwd(Rho^2) = 133.33w(.25) = 33.33w
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1959. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 13:36:06 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC7C946.D449A7DA@ieee.org>
Source record: 131897

VE9SRB wrote:
> And I promise that this will be the last post from me on this subject.

[Chuckle] Yep, and I know why. You should have published Part 3 of
your QEX article in the April issue.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1960. Re: Hustler 4BTV Help Needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 14:05:15 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <85OcnRjB5pRSUlqgXTWcog@comcast.com>
Source record: 131898

Dan,

Generally, what you would want to do is to move the 20 m trap down (closer to the feedline) to raise the 20 m resonance. You would then extend the top a little to compensate for 40m.

Tam/WB2TT
"Dan" <n7slc@yahoo.com> wrote in message news:aq7h3ertm1@terabinaries.xmission.com...
> HI All,
>
> Being fairly new to HF vertical antennas I really didn't know what to
> expect. Due to space limitations, I am unable to install a ground radial
> system. According to the 4BTV manual, satisfactory results can still be
> obtained without the radial system.
>
> Here's the trouble...SWR is very low on 10M,15M, and 40M. However, on
> 20M the SWR is 1:1 at the bottom of the band and climbs to 2:1 at 14.166Mhz.
> At 14.350Mhz, the SWR is off the chart.
>
> Any suggestions?
>
> TIA,
>
> Dan
>
>

1961. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 14:21:29 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211050621.3559d50a@posting.google.com>
Source record: 131899

CAM <Cecil.A.Moore@ieee.org> wrote in message news:<3DC6ECC6.C29C6839@ieee.org>...
> Roy Lewallen wrote:
> >
> > Art Unwin KB9MZ wrote:
> > >
> > > Cecil,I looked at my standard programming collection and I saw that
> > > a 2 element beam can exceed 10 db gain. . .
> >
> > Huh? Are you saying that a 2 element beam can exceed 10 dB gain relative
> > to a dipole in the same environment?
>
> Roy, Art didn't say 10 "dBd". I think we can safely assume it is 10 dBi
> over ground, the same gain my 80m dipole achieves on 10m and also the
> same gain a 10m EDZ dipole will produce over average ground.

Very good Cecil in sticking to the point as to what "gain" is i.e. a
ratio.
The piece of wood that I was comparing it to contained some magic but
I was still able to claim a high RATIO. Nothing wrong with that
statement in this world. Andy Rooney regularly points to products that
point to "more" on its packaging.
Art

1962. Re: Double Bazooka

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 14:32:27 UTC
From: F8BOE Olivier <f8boe@free.fr>
Message-ID: <3dc7d6b4$0$385$626a54ce@news.free.fr>
Source record: 131901

Hello!

From my experience, I can tell that the doubl bazooka is a fine antenna for the home brouwer, with a good bandwidth/losses ratio as written in ARRL's Antenna Handbook.
This wide band antenna is also usable on the 3rd harmonic, I use one on 10 meter (not very useful on 86 MHz) and one for 144/432 MHz mostly during hollidays or portable operations as secondary antennas.
For the low HF bands, attaching the antenna to a non metallic supporting wire is mandatory!

73 de F8BOE Olivier ...-.-

1963. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 14:33:22 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211050633.5261a522@posting.google.com>
Source record: 131900

fractenna@aol.com (Fractenna) wrote in message
news:<20021101194834.01210.00002014@mb-mk.aol.com>...

> Gain is a mathematically defined quantity which is unitless:
>
snip
>
> Hope this helps.
>
> 73,
> Chip N1IR

Hoorah for Chip.
Perhaps you can tell me why one of the terms 'weight','length' or
'time' was not introduced by antenna engineers. Science has always
done this since man first came about on this earth, so why did the
antenna scientists follow the norm?
Can we expect in the near future that we will be buying produce
relative to its
weight in space or on the moon surface now that we accept the
reference to a dipole in space?
Art

1964. How to directly connect frequency counter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 14:56:18 UTC
From: cprstn54zz@att.net
Message-ID: <3dc7d7a3.441877046@news-server.optonline.net>
Source record: 131902

I just bought a Radio Shack #22-306 frequency counter (on clearance at $39.99). I know it works because it reports the proper figures for my handi talkies.

I had hoped that its antenna would pick up stray radiation when I TX from my FT990. Even though my field stregth meter is showing measurable RF in the shack, the counter won't register, even with the antenna against the coax feedline.

The counter also has has a 50 ohm BNC jack for direct connect. RS says not to exceed 1.4 V peak-to-peak on the jack.

Using Ohm's law, this seems to translate into 1/2 watt.

I had hoped to use this as the frequency meter for my 5 watt QRP XCVR. Unless I have someone stand under the dipole with the counter, it looks like this won't work using the counter's antenna.

Can I "T" off the radio's SO-239, with one leg to the antenna and one to the frequency counter? How do I lower the voltage to the counter to under 1.4 volts without sucking power? Can I just put a 500 ohm resistor in the center condutor of the leg going to the counter or do I have to maintain 50 ohms to avoid massive reflection?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1965. Re: How to directly connect frequency counter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 15:13:32 UTC
From: cprstn54zz@att.net
Message-ID: <3dc7dfce.443967984@news-server.optonline.net>
Source record: 131903

On Tue, 05 Nov 2002 14:56:18 GMT, cprstn54zz@att.net (Ken) wrote:

While I am still interested in the original question, I found a
different solution: I put 20 turns of hook-up wire around my coax
feedline and connected it directly to the antenna (BNC center). That
worked.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

1966. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 15:14:03 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ltnfsu09k99kcqii4ql8unk5s0gdos6lfm@4ax.com>
Source record: 131904

On 5 Nov 2002 06:21:29 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>CAM <Cecil.A.Moore@ieee.org> wrote in message news:<3DC6ECC6.C29C6839@ieee.org>...
>> Roy Lewallen wrote:
>> >
>> > Art Unwin KB9MZ wrote:
>> > >
>> > > Cecil,I looked at my standard programming collection and I saw that
>> > > a 2 element beam can exceed 10 db gain. . .
>> >
>> > Huh? Are you saying that a 2 element beam can exceed 10 dB gain relative
>> > to a dipole in the same environment?
>>
>> Roy, Art didn't say 10 "dBd". I think we can safely assume it is 10 dBi
>> over ground, the same gain my 80m dipole achieves on 10m and also the
>> same gain a 10m EDZ dipole will produce over average ground.
>
>Very good Cecil in sticking to the point as to what "gain" is i.e. a
>ratio.
>The piece of wood that I was comparing it to contained some magic but
>I was still able to claim a high RATIO. Nothing wrong with that
>statement in this world. Andy Rooney regularly points to products that
>point to "more" on its packaging.
>Art

C'mon Art.

You've deliberately evaded the question. Everyone here are not the
rubes you take them to be. We all known what a RATIO is and what a dB
is and that you have again failed to distinguish what is asked in the
simple question:
>> Roy, Art didn't say 10 "dBd". I think we can safely assume it is 10 dBi
As you have neither confirmed nor denied, instead simply wandering the
landscape like the ghost of Macbeth:
"to be or not 10 dB, what was the question?"

Anyway, thanks for the comedy,

73's
Richard Clark, KB7QHC

1967. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 15:25:56 UTC
From: richardharrison@webtv.net
Message-ID: <21575-3DC7E304-145@storefull-2318.public.lawson.webtv.net>
Source record: 131906

Greg wrote:
"There is 100W into the 50-ohm load, yet it is on a 150-ohm transmission line. Do you agree with the original proposal that there is 133W incident out of (on) the 150-ohm line and so (there) must be 33W reflected back from the 50-ohm load?"

I`ve read few posts in this thread and accept Greg`s characterization of the original proposal.

There is a reflection coefficient (rho):
rho = R-Zo / R+Zo = -0.5

And, from SWR = Zo / R = 3

And from Pref = Pfwd (rho squared)

And from my Bird Electronic Corporation VSWR Slide Rule, the incident power is 133 watts. 100 watts is taken by the 50-ohm load, and 33 watts is reflected.

The return loss is 6 dB and the match efficiency is 75%.

Best regards, Richard Harrison, KB5WZI

1968. An Inexpensive External GPS Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 15:32:17 UTC
From: samsvl@nlr.nl
Message-ID: <Xns92BDA83CF8692samsvlnlrnl@137.17.96.14>
Source record: 131905

By Mark Kesauer, N7KKQ at
http://www.arrl.org/tis/info/pdf/0210036.pdf

1969. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 16:17:08 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211050817.7bf23137@posting.google.com>
Source record: 131907

CAM <Cecil.A.Moore@ieee.org> wrote in message news:<3DC6EB64.4CC8C45B@ieee.org>...
> Lionel Carter wrote:
> >
> > I'm basically following the discussion and am happy about the concept
> > applied to directional antenna but how does it apply to vertical 'sticks'.
> > From what is said the gain figures for vertical whips etc quoted in all the
> > adverts are meaningless. The only reference I can think of would be a single
> > full wavelength antenna and my 1/2 wave, claimed to have a gain of 3.5 dB is
> > approx twice as good a the full wavelength one would be. Have I got that
> > right?
> >
> > Given that antenna (passive) can't amplify, and are less than 100% efficient
> > due to losses, I would have thought that the 'gain' would in fact be
> > negative.
>
> Many vertical antennas, especially at the higher frequencies, use linear
> end-to-end phasing to achieve gain. If the antenna is made wavelengths long
> with phasing coils in between the radiating elements, one can achieve a
> flatter doughnut pattern. My 2x4MAX is supposed to have 12dB gain over
> a 1/4WL vertical on 70 cm, i.e. a very flat doughnut shape that multiplies
> the power by 16 times the ground wave of a 1/4WL vertical.

Yes, introducing phasing even without the addition or use of lumped constants
can produce a situation where one would say 'gain of a dipole over a dipole'.
I presume the ARRL has a plan to stop the use of such a demoralising term.
ART

1970. Re: Hustler 4BTV Help Needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 16:28:15 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <noqfsukp779cffcc19ue3injeg61se1jkd@4ax.com>
Source record: 131909

On Mon, 4 Nov 2002 21:23:04 -0700, "Dan" <n7slc@yahoo.com> wrote:

|HI All,
|
| Being fairly new to HF vertical antennas I really didn't know what to
|expect. Due to space limitations, I am unable to install a ground radial
|system. According to the 4BTV manual, satisfactory results can still be
|obtained without the radial system.

I owned one of these years ago but I don't remember what the manual
said about the ground system. I do know however, that the antenna is
supposed to be an electrical quarter-wave on each band, so the ground
system is extremely important.

You should have the antenna ground-mounted and have at least some kind
of ground rod at the base. This would be a very poor arrangement
without radials but if it's the best you can do than so be it.
|
| Here's the trouble...SWR is very low on 10M,15M, and 40M. However, on
|20M the SWR is 1:1 at the bottom of the band and climbs to 2:1 at 14.166Mhz.
|At 14.350Mhz, the SWR is off the chart.

The band that should exhibit the narrowest SWR bandwidth is 40 meters
since all of the traps are in play and the physical height is very
short for that band. The high ground and trap losses should actually
work to improve the matched bandwidth; i.e. the antenna is approaching
dummy load status. For the 20 meter performance you observe to take
place there has to be another higher Q resonance someplace.
|
| Any suggestions?

Yes, I'm guessing that the transmission line is part of the antenna.
Try putting another 10' or so or coax in the system and see what
happens to the 20 meter SWR. When it changes, report back.

Wes

1971. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 16:28:26 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211050828.4914f5db@posting.google.com>
Source record: 131908

CAM <Cecil.A.Moore@ieee.org> wrote in message news:<3DC6D962.E22A5677@ieee.org>...
> Jeffdeham wrote:
> >
> > I am modeling a 1/4 wave vertical 10 feet about ground with 4 radials.
> > I was wondering what the efficiency is for the antenna.
> > Is is it comparable to being 1 foot over salt water?
>
> Since you didn't tell us the frequency, nobody will be able to answer
> your question. If it is 1/2WL in the air, it will perform pretty well.
> If it is 0.04WL in the air, it will perform rather poorly.

Jeff,
It would help you to get hold of an article by 'Doty ?' that was
printed in the Ham Radio magazine many,many years ago, where the
question of buried radials was dealt with in depth (no pun intended)
and also compared to elevated radials.
Perhaps someone can point you to the actual title and year.
Art

1972. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 16:36:37 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211050836.86c6721@posting.google.com>
Source record: 131910

CAM <Cecil.A.Moore@ieee.org> wrote in message news:<3DC6CA31.4672F9C8@ieee.org>...
> Tarmo Tammaru wrote:
> >
> > Cecil,
> >
> > I never worried about this, and am not sure what this proves, but you might
> > want to look at passive telephone echo cancellers and hybrid transformers.
> > They actually unbalance these slightly so you can hear some of your own
> > speech (sidetone). You certainly hear the other guy, and any echo on your
> > own signal.
>
> When I was working at Intel, we had some connections to the Far East
> that were so bad the reflections made communications virtually impossible.
> Of course, those reflections only existed in my imagination but I sure
> seem to have a vivid imagination. :-)

Cecil aren't reflective waves part of your antenna SYSTEM where
because of a
phase change these waves are radiated by the ANTENNA part of your
system.
I do not believe when you turn off your transmitter you are able to
pick up these reflected waves and weigh them.
Regards
Art

1973. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 16:49:58 UTC
From: richardharrison@webtv.net
Message-ID: <21575-3DC7F6B6-150@storefull-2318.public.lawson.webtv.net>
Source record: 131911

Art Unwin, KB9MZ, commenting on Chip`s statement, "Gain is a
mathematically defined quantity which is unitless." wrote:
"Hoorah for Chip."

Chip is exactly correct. Incidentally, it would be madness to try to evaluate antennas in general in any environment other than in free space unless we were specifying the combination of the antenna and its ground reflection.

As for unitless antenna gain, Terman says:
"Directive gain depends on the distribution in space of radiated power. The power input to the antenna, the antenna losses, or the power consumed in a terminating resistance have nothing to do with directive gain. Such factors are taken into account in terms of power gain of the antenna which is defined as the ratio of the power input to the comparison antenna required to develop a particular field strength in the direction of maximum radiation to the power input that must be delivered to the directional antenna to obtain the same field strength in the same direction."

One power ratioed to another power is dimensionless. As they say, the units cancel.

Best regards, Richard Harrison, KB5WZI

1974. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 17:30:59 UTC
From: richardharrison@webtv.net
Message-ID: <9891-3DC80053-415@storefull-2313.public.lawson.webtv.net>
Source record: 131912

Art Unwin, KB9MZ quoted Cecil who wrote:
"When I was working at Intel, we had some connections to the Far East that were so bad the reflections made communications virtually impossible."

When I worked at Tenneco, my conversations with Australia seemed to be made through multiple satellite hops. Despite echo cancellers, the long delays made the conversations virtually half-duplex and annoying.

Art also wrote: "I do not believe when you turn off your transmitter you are able to pick up those reflected waves and weigh them."

Maybe not. But, the waves keep traveling after the transmitter is turned-off until the waves on the transmission line have been radiated or otherwise disposed. Of course they travel on in space for much longer. We see light from events occurring far out in space aeons ago.

Best regards, Richard Harrison, KB5WZI

1975. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 17:54:27 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <usg1el1jssr2d6@corp.supernews.com>
Source record: 131913

With all due respect Art, Bovine Excreatment...

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in
> Cecil,I looked at my standard programming collection and I saw that
> a 2 element beam can exceed 10 db gain.If

1976. Re: How to directly connect frequency counter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 17:59:57 UTC
From: Randy Ott <randy@iscdata.com>
Message-ID: <xGTx9.290$Ni6.239758548@newssvr11.news.prodigy.com>
Source record: 131914

Ken,

Sounds like a good solution. I would like to point out that 1.4 V peak-to-peak into 50 Ohms is about 5 mW not 1/2 Watt. That translates to +7 dBm. If you apply 1/2 Watt to the counter, you might blow the front end or prescaler.

Randy

"Ken" <cprstn54zz@att.net> wrote in message news:3dc7dfce.443967984@news-server.optonline.net...
> On Tue, 05 Nov 2002 14:56:18 GMT, cprstn54zz@att.net (Ken) wrote:
>
> While I am still interested in the original question, I found a
> different solution: I put 20 turns of hook-up wire around my coax
> feedline and connected it directly to the antenna (BNC center). That
> worked.
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

1977. I just ordered a A 99 with gound plane kit

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 18:02:28 UTC
From: Recordking@Hotmail.com
Message-ID: <e8d89b3f.0211051002.3d67e413@posting.google.com>
Source record: 131915

What do u guys this of a A 99 cb radio antenna with ground plane kit.
I need some specs on the A 99 like how db gain do u get and any other
good info I
might need to know. I going to use this antenna with a old cobra
89xlr and
how many mile range will I get if the antenna is like 30ft high.

1978. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 18:46:15 UTC
From: fantbb@yahoo.com
Message-ID: <c2a65514.0211051046.10ed2d55@posting.google.com>
Source record: 131916

fantbb@yahoo.com (Jeffdeham) wrote in message
news:<c2a65514.0211041129.251337a3@posting.google.com>...
> I am modeling a 1/4 wave vertical 10 feet about ground with 4 radials.
> I was wondering what the efficiency is for the antenna.
> Is is it comparable to being 1 foot over salt water?

Whoops, the frequency is 7mhz.

From what I have read is that even being .1 wavelengths above the
ground makes
for the vertical being way more efficient and 4 radials can be the
same as having
60 plus radials (just a guess on the amount of radials).
Hence the question is that the same as being over salt water
conductivity wise?
Or another way of putting does ground have a real effect on a 1/4
vertical with let's say
120 radials?

Thanks!

Jeff

1979. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 18:47:51 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC81257.D4670B02@ieee.org>
Source record: 131917

Art Unwin KB9MZ wrote:
> Cecil aren't reflective waves part of your antenna SYSTEM where
> because of a
> phase change these waves are radiated by the ANTENNA part of your
> system.

During steady-state conditions, all the generated power (minus T-line losses) reaches the antenna. That power is riding on the back of the previously established standing waves (assuming standing waves have a back to ride on. :-)

> I do not believe when you turn off your transmitter you are able to
> pick up these reflected waves and weigh them.

Theoretically, we should be able to measure the power into a load after the transmitter is disconnected. We would need a clean disconnect to trigger our scope/analyzer and I'll bet we will see all sorts of transient voltage across the load after the disconnect. Voltage across a resistive load equals extracted power even during transient conditions.

But if you want an example that makes everything clear, consider a lossless transmission line system that is one second long. Given a forward power of 133.33 joules/sec and 33.33 joules/sec reflected, a one second long transmission line would contain 166.66 joules of energy, 133.33 joules of forward energy, and 33.33 joules of reflected energy. You can certainly burn your fingers with 166.66 joules.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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1980. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 18:49:59 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC812D7.EE61A752@ieee.org>
Source record: 131918

Richard Harrison wrote:
> One power ratioed to another power is dimensionless. As they say, the
> units cancel.

Not if the units are watts and horsepower. (The devil made me say that. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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1981. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 18:52:48 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC81380.544D3D10@ieee.org>
Source record: 131819

"Fred Hambrecht Sr." wrote:
>
> With all due respect Art, Bovine Excreatment...

Fred, Art means 10 dBdl, gain over a dummy load. :-)

> "Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in
> > Cecil,I looked at my standard programming collection and I saw that
> > a 2 element beam can exceed 10 db gain.If
--
cheers, CAM http://www.qsl.net/w5dxp

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1982. Re: Why is capacitive end loading more efficient than coils?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 18:53:31 UTC
From: fantbb@yahoo.com
Message-ID: <c2a65514.0211051053.6edfc9ff@posting.google.com>
Source record: 131820

fantbb@yahoo.com (Jeffdeham) wrote in message
news:<c2a65514.0211041609.519ee1c8@posting.google.com>...
> I was wondering why capacitive end loading is more efficient than
> loading with coils?
> Is it due to the coils wasting energy due to resistance to changes of
> voltage/current within the coils?
> Is that where the losses occur?

Thanks guys for great answers!

> Amazing the things that keep you up at night. 8-)

Now I can get some sleep. ;-)

73!

Jeff
AB6MB

1983. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 18:56:12 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC8144C.A03373FF@ieee.org>
Source record: 131821

Jeffdeham wrote:
>
> fantbb@yahoo.com (Jeffdeham) wrote in message
news:<c2a65514.0211041129.251337a3@posting.google.com>...
> > I am modeling a 1/4 wave vertical 10 feet about ground with 4 radials.
> > I was wondering what the efficiency is for the antenna.
> > Is is it comparable to being 1 foot over salt water?
>
> Whoops, the frequency is 7mhz.
>
> From what I have read is that even being .1 wavelengths above the
> ground makes
> for the vertical being way more efficient and 4 radials can be the
> same as having
> 60 plus radials (just a guess on the amount of radials).
> Hence the question is that the same as being over salt water
> conductivity wise?
> Or another way of putting does ground have a real effect on a 1/4
> vertical with let's say
> 120 radials?

I had a 40m 1/4WL vertical with 8 radials at 20 ft. It was a dog
compared to my dipole at 40 ft. It wasn't even worth leaving in
the air as a lightning rod.
--
cheers, CAM http://www.qsl.net/w5dxp

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1984. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 18:56:26 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DC8061B.97B5A272@uwe.ac.uk>
Source record: 131823

Roy Lewallen wrote:
>
snip
> antenna's performance greatly exceeds what's possible for such an
> antenna as predicted by theory which has been shown to be good for the
> past couple of hundred years. I hope that the people on this newsgroup

Who was it that preceded Hertz(1888) and Maxwell(1855) by 50 years or so, Roy? He (or she) should get the credit they deserve. ;-)

vy 73

Andy, M3ABC

1985. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 18:59:11 UTC
From: Lionel Carter <lionelcarter@cut-this-out.freezone.co.uk>
Message-ID: <3dc814c6$1_3@mk-nntp-1.news.uk.worldonline.com>
Source record: 131822

Thanks for that, I can now sleep at nights. I was only thinking in two
dimensions and visualising a flat polar diagram. Squashed doughnuts
certainly spread the jam.

Lionel Carter

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DC6EB64.4CC8C45B@ieee.org...
> Lionel Carter wrote:
> >
> > I'm basically following the discussion and am happy about the concept
> > applied to directional antenna but how does it apply to vertical
'sticks'.
> > From what is said the gain figures for vertical whips etc quoted in all
the
> > adverts are meaningless. The only reference I can think of would be a
single
> > full wavelength antenna and my 1/2 wave, claimed to have a gain of 3.5
dB is
> > approx twice as good a the full wavelength one would be. Have I got that
> > right?
> >
> > Given that antenna (passive) can't amplify, and are less than 100%
efficient
> > due to losses, I would have thought that the 'gain' would in fact be
> > negative.
>
> Many vertical antennas, especially at the higher frequencies, use linear
> end-to-end phasing to achieve gain. If the antenna is made wavelengths
long
> with phasing coils in between the radiating elements, one can achieve a
> flatter doughnut pattern. My 2x4MAX is supposed to have 12dB gain over
> a 1/4WL vertical on 70 cm, i.e. a very flat doughnut shape that multiplies
> the power by 16 times the ground wave of a 1/4WL vertical.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
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> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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---
Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).

Version: 6.0.408 / Virus Database: 230 - Release Date: 24/10/2002

1986. Re: ??Constructing an external antenna for cell phone??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 19:05:23 UTC
From: Brad <me@here.invalid>
Message-ID: <NDUx9.25$jy2.10829@newsfeed.slurp.net>
Source record: 131824
Cross-posted to: alt.cellular.motorola,alt.cellular.tech,alt.cellular.verizon,rec.radio.amateur.antenna,rec.radio.shortwave

Why not just buy a pre made external antenna adapter cable rather than risk
frying your phone.
All sorts of places have them online for around $15.00 one is
www.discountcell.com
Antennas too.

"Mark" <mhopkins@iei.net> wrote in message
news:ek1esugqgphpathdbkfe5p5h1a7b94nlgr@4ax.com...
> I found this "pin out" diagram for my phone:
> ---
> Motorola StarTAC butt plug Pin-Out diagram
>
> I assume *NO* responsibility
> 1) GND Connected with 22pf to pin 3
> 2) RF out
> 3) GND Connected with 33 pf to pin 8, 33 pf to pin 1, 33 pf to pin 7
> 4) BAT_FDBAK
> 5) MAN_TEST connected with 10k to L275
> 6) RS232_TX - connected to MCU SPI bus
> 7) RS232_RX - connected to MCU SPI bus
> 8) AUDIO_IN
> 9) AUDIO_OUT
> 10) GNDA (Ground reference) Connected with 33 pf to pin 13, 33 pf to
> pin 14
> 11) UPLINK -|
> 12) DOWNLINK -|- DSC bus connected to the BIC
> 13) DSC_EN_B -|
> 14) EXT_B+
> 15) GND
> ---
> But I don't understand where to solder the coax shield?? Do I just
> connect it to the ground?? For that matter, why can't I just unscrew
> my cell phone's antenna and stuff the coax into the phone in its place
> (crude I know)?!?!
>
> I was also wondering about the antennas for cordless phones; I know
> it's against the rules to add an external antenna to my 2.4 GHz phone
> base but, (rhetorically speaking) how would you ground the coax shield
> on a phone with just a "metal stick" for an antenna (if you were going
> to -which of course I am not)?
>
> The background for my project:
> A bunch of my buddies and I go camping in rural Southwest Indiana at a

> friend's "weekend property". Nobody can get cell reception there, but
> 2 miles down the road everything is fine. So, I bought me an antenna
> book and have constructed a small ground-plane antenna for 800 MHz
> (Verizon) use, and I am going to stick in a big-old tree out there in
> the woods to see if we can get reception (when we want it).
>
> Thanks,
> Mark
>
>

1987. FS 900 MHz 8 Cavity Duplexer

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 19:30:34 UTC
From: Mike Kulyk <mkulyk@optonline.net>
Message-ID: <u%Ux9.22953$0x.6601@news4.srv.hcvlny.cv.net>
Source record: 131826
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.swap,alt.ham-radio.marketplace,rec.radio.amateur,rec.radio.amateur.antenna

900 MHz 8 Cavity Duplexer
Compact Duplexer with Circulator

This Duplexer came from an older 900 MHz linking radio system. It is presently tuned for 895.90 MHz TX and 934.70 RX, making it very suitable for the 900 MHz Ham band. It came out of service, so should be working fine, but it comes AS-IS.

$150 plus shipping

1988. Mobile Antennas???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 19:55:11 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <vfVx9.14469$bE1.7166@news.bellsouth.net>
Source record: 131828

For the best in performance without breaking the bank visit
www.qsl.net/k4kwh ! Your HF mobile
will compete with the best.

Thanks for looking~!

Jerry
K4KWH

1989. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 19:57:02 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC8228E.E9985E33@ieee.org>
Source record: 131827

KC8PMX wrote:
> Hello Cecil.... haven't seen ya in a while in r.r.a.p. (Believe it or not,
> you have been missed.) Even posted a querie there.

Ed Hare and I were in email contact and mused about why each of us was
on r.r.a.p. Neither one of us could come up with a rational reason to
be there except to kill time and time is going to kill me soon enough
without r.r.a.p's help. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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1990. Re: I just ordered a A 99 with gound plane kit

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 21:09:15 UTC
From: wa8ulx@aol.com
Message-ID: <20021105160915.17589.00002867@mb-cu.aol.com>
Source record: 131829

>What do u guys this of a A 99 cb radio antenna with ground plane kit.

Piece of Junk cancel your order

>I need some specs on the A 99 like how db gain do u get

4 Million DB

> I going to use this antenna with a old cobra
>89xlr and
>how many mile range will I get if the antenna is like 30ft high.
>

10 Million miles

1991. Re: Considering adding a vertical to the antenna farm

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 21:21:59 UTC
From: jhisson1@columbus.rr.com
Message-ID: <4c442fa0.0211051321.2d8b95a5@posting.google.com>
Source record: 131830

Thanks for the comments Bill. The Eagle DX will be used primarily for a "go-to" antenna and/or a second radio antenna for contests. Not really used as the primary station antenna. Cannot pass up the price and I already have the mount in the yard.

As far as the coax was concerned. The coax was the one that came out of the antenna. Not the RG8X coming from the shack. The antenna was only about 4 weeks old and the coax connector was sealed. Somehow water got in the coax.

Thanks again!!

73 de N8XE
Jason

> Hi Jason,
>
> I think the answer to both questions is "Absolutely". The black coax shield
> indicates the coax has been around for some time and may have accumulated
> water, so I'd get new coax. Take a look at RG-58 characteristics compared
> to RG-8. If you are running HF and no amp, you may find RG-58 very useable.
> Certainly a loose coax fitting would not help your reception or
> transmission.
>
> Good luck and Good DX,
>
> Bill, W4WNT

1992. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 21:43:58 UTC
From: richardharrison@webtv.net
Message-ID: <239-3DC83B9E-450@storefull-2317.public.lawson.webtv.net>
Source record: 131832

CAM, W5DXP wrote:
"Not if the units are watts and horsepower."

Touche`!

33,000 ft lbs/ min, 746 watts and one horsepower may be equivalents, but their units are different.

In the case of watts per square meter produced by two differing antennas under the same circumstances, the units in their ratio fall out leaving only a numerical ratio. A power gain, not decibels, but easily converted to decibels if that is your pleasure.

I had a comeuppance coming after my tasteless maroon cap story.

Best regards, Richard Harrison, KB5WZI

1993. Re: Hex Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 21:44:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <usgeu8fu15rh3a@corp.supernews.com>
Source record: 131831

I humbly stand corrected.

Roy Lewallen, W7EL

Andy Cowley wrote:
> Roy Lewallen wrote:
>
> snip
>
>>antenna's performance greatly exceeds what's possible for such an
>>antenna as predicted by theory which has been shown to be good for the
>>past couple of hundred years. I hope that the people on this newsgroup
>
>
> Who was it that preceded Hertz(1888) and Maxwell(1855) by 50 years or so, Roy? He
> (or she) should get the credit they deserve. ;-)
>
> vy 73
>
> Andy, M3ABC

1994. Re: I just ordered a A 99 with gound plane kit

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 22:25:15 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <69hgsuce7k29q09j1p01kuc6vo231ksbsv@4ax.com>
Source record: 131833

To learn more about this antenna check out
http://www.qsl.net/kg6aoh/a99/

Danny

1995. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 23:27:05 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <dtYx9.2250$Ve3.1765940@monger.newsread.com>
Source record: 131834

"KC8PMX" <kc8pmx@NOSPAMdiamondcs.net> wrote in message
news:aq5t2n51nao@enews4.newsguy.com...
> This discussion came up awhile back with a group around here where I live.
> How does one explain, in laymens terms, or using an analogy of how a
simple
> yagi antenna works? (for purposes of discussion, we will consider a simple
3
> element yagi.) I and the others (as well as many here) can explain how
it
> works in a technical manner, but none of us can explain it in the simple

Ryan...for shame!
Here you have an article titled, "A Verbal Graphic Description of Gain Antenna Operation". It was in CQ magazine back in the late 70s. The author is local. Most in the club should remember...well, then again, many of them are getting along in years. I've seen it happening over many decades....Now we were talking about what?

Basically in a Yagi:

The element lengths and spacings are such that, going step wise.

1. The signal is radiated by the driven element
2. The radiated signal creates a current in the reflector whos length and spacing is shuch that when the reflector reradiates the signal it will be out of phase with the next cycle from the driven element which cancels much of the signal to the rear.
3. The director, like the reflector reradiates a signal, but it's spacing from the driven element and length put it's signal in phase with the next cycle from the driven element, adding to the signal strength in that direction.

Element lengths and spacings are often varied a bit to give wider band width, at the expense of gain. Higher front-to-back also comes at the expense of gain. That being the case, most Yagi antennas are a compromise between maximum gain, front-to-back, and bandwidth.
The article takes you through it step-by-stp.

If he can find the article, I'm certain the author would be happy to make some copies for you. As CQ holds the copyright, others would have to contact them to get the complete article.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)

> manner. Take this as if you were trying to explain this to someone who
does
> not have much knowledge of radio theory, say for instance, like your
> grandmother or an aunt somebody like that.
>
>
> Like I stated, I can explain it in the technical manner, but am trying to
> figure out how to explain it to average person with little to no radio
> theory experience...
>
>
> Thanks,
>
>
> --
> Ryan, KC8PMX
> FF/MFR
> REMOVE "NOSPAM" in email address to reply.
>
>

1996. Can't Find Insulators:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 23:45:23 UTC
From: jackinariz@webtv.net
Message-ID: <24606-3DC85813-320@storefull-2137.public.lawson.webtv.net>
Source record: 131836

I am getting a project together...I want to put insulators at the mast for the guylines......But i can't find insulators anywhere.....Except India or China.....Anyone know?..Jack D.

1997. Re: I just ordered a A 99 with gound plane kit

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-05 23:58:00 UTC
From: Pappy@USA.net
Message-ID: <3DC85B08.1D7FE1C2@USA.net>
Source record: 131835

WA8ULX wrote:

> >What do u guys this of a A 99 cb radio antenna with ground plane kit.
>
> Piece of Junk cancel your order
>
> >I need some specs on the A 99 like how db gain do u get
>
> 4 Million DB
>
> > I going to use this antenna with a old cobra
> >89xlr and
> >how many mile range will I get if the antenna is like 30ft high.
> >
>
> 10 Million miles

Don't let WA8ULX spoil your day. I have tuned and used one on 10 meters
for the past 15 years and it works quite well.

1998. Re: I just ordered a A 99 with gound plane kit

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 00:18:41 UTC
From: k9sqg@aol.com
Message-ID: <20021105191841.06119.00000067@mb-bd.aol.com>
Source record: 131837

It's really not possible to answer your questions with any degree of precision without knowing the type of terrain you're near, what obstructions (buildings, trees, hills, etc.) are nearby, and so forth. With my experiments, I determined that the Antron was the best vertical I had used and I made on the air tests with several other verticals and switched back and forth. The Antron equalled or surpassed (slightly) a 3/4 wave vertical and was 1-2 S units higher than 1/4 and 5/8 wave verticals . Measurements were made at a range of less than 20 miles. Most people using a "copy stick" would disagree with the findings but I have confidence in my findings for the conditions under which the data were collected.

As a side note, the radials improved the signal, further out, but only a fraction of an S unit, not worth the cost in my opinion.

Best of luck...

1999. Re: Hustler 4BTV Help Needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 00:21:07 UTC
From: k9sqg@aol.com
Message-ID: <20021105192107.06119.00000068@mb-bd.aol.com>
Source record: 131838

Dan,

Sounds like the antenna needs to be adjusted to get the SWR down for the parts of the band that you want to use.

Unfortunately, some brands seem to want to defy the laws of physics and state radials are not needed. This is NOT true. For those that believe, no proof is necessary, for those that don't believe, no proof is possible. A ground mounted vertical without radials will perform but not nearly as well as one with radials.

73s,

Evan

2000. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 00:37:57 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <FvZx9.315252$vq2.3203953@news1.east.cox.net>
Source record: 131839

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DC6059C.DBCB2DBF@ieee.org...
> I recently had an email interchange with someone associated with QEX
> who believes reflected power cannot be extracted from a transmission
> line. This is obviously an old wive's tale.

I always wondered why they put loads on the third isolator port...

Pete

! =-----

2001. Re: Can't Find Insulators:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 00:42:50 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <qGPIPRQiHRyzyhdEss5=t+Som2OC@4ax.com>
Source record: 131840

jackinariz@webtv.net (jack D) wrote:

>I am getting a project together...I want to put insulators at the mast
>for the guylines......But i can't find insulators anywhere.....Except
>India or China.....Anyone know?..Jack D.

Radio Works has the smaller plastic egg insulators. Texas Towers has the large insulators for towers or big masts. Both have web sites.

Bob
k5qwg

2002. Food for Thought corrections

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 01:07:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <usgqr57ommlf01@corp.supernews.com>
Source record: 131841

Thanks to Jacques, ON5MJ and Kent, VE4KEH for spotting and reporting some typos in the "Food for Thought" essays. The errors were found in "Superposition" and "Waves and Power". These, and the text file containing all the essays, have been corrected and uploaded. They're available from ftp://eznec.com/food_for_thought/. Note that the directory name has been changed from "Food for Thought".

I encourage anyone finding any factual errors as well as typos to please let me know.

Roy Lewallen, W7EL

2003. Re: I just ordered a A 99 with gound plane kit

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 01:42:15 UTC
From: wa8ulx@aol.com
Message-ID: <20021105204215.24115.00004130@mb-md.aol.com>
Source record: 131842

>I have tuned and used one on 10 meters
>for the past 15 years and it works quite well.

In comparrison to what?

2004. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 01:51:40 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211051751.159b9987@posting.google.com>
Source record: 131843

fantbb@yahoo.com (Jeffdeham) wrote in message
news:<c2a65514.0211051046.10ed2d55@posting.google.com>...
> fantbb@yahoo.com (Jeffdeham) wrote in message
news:<c2a65514.0211041129.251337a3@posting.google.com>...
> > I am modeling a 1/4 wave vertical 10 feet about ground with 4 radials.
> > I was wondering what the efficiency is for the antenna.
> > Is is it comparable to being 1 foot over salt water?
>
> Whoops, the frequency is 7mhz.
>
> From what I have read is that even being .1 wavelengths above the
> ground makes
> for the vertical being way more efficient and 4 radials can be the
> same as having
> 60 plus radials (just a guess on the amount of radials).

Four radials at .1 wave are more efficient than the same four on the
ground, but you still have a fairly lossy system overall unless you
are over very good ground. For four radials to equal 60 ground mount
radials, they need to be appx 1/4 wave up. I'd have to more closely
calculate, but just guessing, I'd say you would need 40-50 radials at
.1 wave up to equal 60 ground mounted. According to graphs I have in
books, at 1/8 wave up, you need appx 60 to equal 120 on the ground.

> Hence the question is that the same as being over salt water
> conductivity wise?

I would think being over salt water with a low GP would be better than
120 radials on "average" ground.

> Or another way of putting does ground have a real effect on a 1/4
> vertical with let's say
> 120 radials?

Well, to me it's sort of backwards from that. You would use that many
radials in order to not be as effected by the ground quality, or lack
of it. You have a more stable system, and you also know exactly what
you have at any given time. Or at least at a minimum anyway. But if
ground cdx improve, even a system with 120 radials would slightly
improve also I would think. You can use more than 120 radials. That
number can be improved upon for the extreme hard core of vertical
users. I doubt it's worth the trouble though.
Many times you don't need 120 radials if your ground quality is good
enough. The increase from 60 to 120 is small. Less than a db normally.
I know from experience, if you want to run a 1/4 wave vertical, and
want good solid results with only 4 radials, it has to be at least 1/4

wave up. Sure, you can run one at 1/8 wave with 4 radials and have mediocre to decent results, but don't plan on it being a dx buster like the higher one would be. The differences in ground losses are quite noticable between the two. I was able to test this easily being I used a telescoping mast as a support for the vertical. I ran it low a couple of times while I was working on things. It wasn't near as good as when it was up at 36 ft. "40m".
I also ran the same antenna ground mounted originally. I got up to 32 radials at one point. It wasn't even close to the antenna at 36 ft with 4 radials. That tells me that even for a place like Houston, which actually has fairly decent ground quality compared to many areas, using 60 to 120 radials on a ground mount is not a waste of time for top results. If it were, I wouldn't have seen the large difference.
The ground mount with 32 radials was never more than mediocre, and usually about equal to a dipole at 36 ft on 1000-1500 mile paths.

MK

2005. Re: ??Constructing an external antenna for cell phone??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 01:55:53 UTC
From: NL <nospan@nospam.com>
Message-ID: <3dc874b7$1_7@news.teranews.com>
Source record: 131844
Cross-posted to: alt.cellular.motorola,alt.cellular.tech,alt.cellular.verizon,rec.radio.amateur.antenna,rec.radio.shortwave

At least you can get a good external antenna adapter for a StarTac. I've tried a couple for the V60c with terrible results. I just don't seem to get a good mate plugging into the connector on the back of the phone.

2006. Re: ??Constructing an external antenna for cell phone??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 03:31:20 UTC
From: "R. Mark Clayton" <MClayton@btinternet.com>
Message-ID: <aqa2e8$6aj$1@knossos.btinternet.com>
Source record: 131845
Cross-posted to: alt.cellular.motorola,alt.cellular.tech,alt.cellular.verizon,rec.radio.amateur.antenna,rec.radio.shortwave

"That Larry" <noone@home.com> wrote in message
news:3dc75147.21880971@64.154.60.171...
> On Mon, 04 Nov 2002 19:02:07 -0500, Mark <mhopkins@iei.net> wrote:
>
> >I found this "pin out" diagram for my phone:

snip

>
> Shield to pin 1 is fine.....
>
> The cellphone antenna ISN'T a 50 ohm port.

Older analog phones did have 50ohm ports.

My Technophone Mk2 (~1987) has [50/75 Ohm] SMA connectors. You could screw
on a quarter wave stub, a base loaded 5/8 wave antenna (gave +3dB allegedly)
or coax to an external antenna (here I used a dual semicoil design that gave
an alleged +4.5dB improvement, probably enough to make up for the losses in
the cable).

Some more recent phones do have push fit coax connectors of some kind or a
minature coax at one end of the plug.

snip

>
> Larry

2007. Re: Hustler 4BTV Help Needed *** Problem Resolved ***

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 03:42:01 UTC
From: Dan <n7slc@yahoo.com>
Message-ID: <aqa32abql1@terabinaries.xmission.com>
Source record: 131846

A simple adjustment of the 20 meter trap resolved the trouble without adversely affecting any of the other bands.

Thanks to all who repsonded.

73,

Dan
N7SLC

2008. Re: Can't Find Insulators:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 03:55:47 UTC
From: jackinariz@webtv.net
Message-ID: <27580-3DC892C3-506@storefull-2132.public.lawson.webtv.net>
Source record: 131848

Thanks Bob....I will check those sites....I have been to Texas Towers
but i guess I looked in the wrong part of the site....Will check
both..Thanks again....Jack D.

2009. Tuning trap/parallel dipole question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 04:15:13 UTC
From: Ku3o <ku3o@arrl.net>
Message-ID: <lH0y9.236213$S8.4384211@twister.tampabay.rr.com>
Source record: 131847
Cross-posted to: alt.ham-radio.hf,rec.radio.amateur,rec.radio.amateur.antenna

Folks,

I need to tune my Alpha Delta DX-EE multiband trap/parallel
dipole.

My question is, there surely must be interaction between
the wires, so which bands do I tune first? 10 Meters
first and 40 meters last?

or the other way around...

10 meters is dedicated wire
15 meters is dedicated wire
20 and 40 are shared with traps (ok, Alpha Delta
calls them ISO-RES coils)

```
40 Meters 20 Meters 20 Meters 40 Meters
--------||||||----------------------------||||||---------
-----------/|\----------- 15 Meters
----/ | \---- 10Meters
|
|
```

Thanks,
George

2010. Re: ??Constructing an external antenna for cell phone??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 04:22:26 UTC
From: noone@home.com
Message-ID: <3dc8989d.25563981@64.154.60.171>
Source record: 131849
Cross-posted to: alt.cellular.motorola,alt.cellular.tech,alt.cellular.verizon,rec.radio.amateur.antenna,rec.radio.shortwave

On Tue, 5 Nov 2002 18:55:53 -0700, "NL" <nospan@nospam.com> wrote:

>At least you can get a good external antenna adapter for a StarTac. I've
>tried a couple for the V60c with terrible results. I just don't seem to get
>a good mate plugging into the connector on the back of the phone.
>
>
Yeah, I have the connector from Cellantenna.com in Florida to plug my
V60i into my DA4000 linear amplifier. The center conductor button
ISN'T spring loaded to firmly press it against the crappy connector on
the back. It sucks!

Whatever happened to SMA connectors that SCREW on?? SMA is tiny,
rated to 12.4 Ghz and is a STANDARD connector. Stupid Moto, very
Stupid!

Larry

Ok, who's the smartass that beamed down this
nekkid nurse?! Kirk OUT!

2011. Re: ??Constructing an external antenna for cell phone??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 04:53:11 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-E55B88.20533005112002@newssvr21-ext.news.prodigy.com>
Source record: 131850
Cross-posted to: alt.cellular.motorola,alt.cellular.tech,alt.cellular.verizon,rec.radio.amateur.antenna,rec.radio.shortwave

In article <3dc8989d.25563981@64.154.60.171>,
noone@home.com (That Larry) wrote:

> On Tue, 5 Nov 2002 18:55:53 -0700, "NL" <nospan@nospam.com> wrote:
>
> >At least you can get a good external antenna adapter for a StarTac. I've
> >tried a couple for the V60c with terrible results. I just don't seem to get
> >a good mate plugging into the connector on the back of the phone.
> >
> >
> Yeah, I have the connector from Cellantenna.com in Florida to plug my
> V60i into my DA4000 linear amplifier. The center conductor button
> ISN'T spring loaded to firmly press it against the crappy connector on
> the back. It sucks!
>
> Whatever happened to SMA connectors that SCREW on?? SMA is tiny,
> rated to 12.4 Ghz and is a STANDARD connector. Stupid Moto, very
> Stupid!
>
>
> Larry
>
> Ok, who's the smartass that beamed down this
> nekkid nurse?! Kirk OUT!
>

SMA is good to 18 Ghz.

--
Telamon

2012. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 04:59:28 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <Qk1y9.2267$Ve3.1780530@monger.newsread.com>
Source record: 131851

Well, after 5 or 6 hours I'm going to try again. The other post never did show up.

"KC8PMX" <kc8pmx@NOSPAMdiamondcs.net> wrote in message news:aq5t2n51nao@enews4.newsguy.com...
> This discussion came up awhile back with a group around here where I live.
> How does one explain, in laymens terms, or using an analogy of how a simple
> yagi antenna works? (for purposes of discussion, we will consider a simple 3
> element yagi.) I and the others (as well as many here) can explain how it
> works in a technical manner, but none of us can explain it in the simple

Ryan...for shame!
Here you have an article titled, "A Verbal Graphic Description of Gain Antenna Operation". It was in CQ magazine back in the late 70s. The author is local. Most in the club should remember...well, then again, many of them are getting along in years. I've seen it happening over many decades....Now we were talking about what?

Basically in a Yagi:

The element lengths and spacings are such that, going step wise.

1. The signal is radiated by the driven element
2. The radiated signal creates a current in the reflector whos length and spacing is shuch that when the reflector reradiates the signal it will be out of phase with the next cycle from the driven element which cancels much of the signal to the rear.
3. The director, like the reflector reradiates a signal, but it's spacing from the driven element and length put it's signal in phase with the next cycle from the driven element, adding to the signal strength in that direction.

Element lengths and spacings are often varied a bit to give wider band width, at the expense of gain. Higher front-to-back also comes at the expense of gain. That being the case, most Yagi antennas are a compromise between maximum gain, front-to-back, and bandwidth.
The article takes you through it step-by-stp.

You can also get a couple people to help with paddles and a bath tub.
The one in the middle uses the paddle to create the radiator
The one behind is the reflector and the one in front the director.

1. Have the "radiator" start making waves.
2. Have the "director making waves in phase with the "radiator"

3. Have the "reflector" make waves that are out of phase with the radiator.

It works better in a pond or swimming pool using paddles made of a board about 3 feet long. A 3' long 1 X 4 on the end of a 2 X 4 for a handle works quite well.
You not only can see the antenna work, but you can even see the waves to the side come out and cancel, or add in spots.

However, unless the person is basically technically minded they really will have very little grasp of how an antenna works even with the demonstration.

It's like trying to explain how a computer works to the average person (actually the vast majority of the population) It adds because they pressed <2> then <+> and then <6> which gave them "8". They wouldn't get past the binary representation of "2", let alone trying to explain a register.

If he can find the article, I'm certain the author would be happy to make some copies for you. As CQ holds the copyright, others would have to contact them to get the complete article.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S♯ CD-2)

2013. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 05:29:51 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211052129.4264ba52@posting.google.com>
Source record: 131852

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<21575-3DC7F6B6-150@storefull-2318.public.lawson.webtv.net>...
> Art Unwin, KB9MZ, commenting on Chip`s statement, "Gain is a
> mathematically defined quantity which is unitless." wrote:
> "Hoorah for Chip."
>
> Chip is exactly correct. Incidentally, it would be madness to try to
> evaluate antennas in general in any environment other than in free space
> unless we were specifying the combination of the antenna and its ground
> reflection.
>
> As for unitless antenna gain, Terman says:

snip
>
> Best regards, Richard Harrison, KB5WZI

Help me out here Richard as I want to add 'length' so we
introduce something that does have units.
If we put 1 amp, say 1 Au, as the vertical side of the graph and then
horisontally we have 1/2 wavelength, couldn't we draw the sinosoidal
radiation curve on this graph so the AREA underneath the curve
does have units? I am not sure what the actual units would be.
If instead of rotation we have a linear uniform acceleration of electrons
so instead of a curve it would be a straight horizontal line providing
the maximum area possible (max radiation possible?) from a dipole.
(uniform accelaration I was thinking would be something like that of gravity)
Would something of this aproach help us to provide gain with units ?
From the above we can show that a dipole efficiency compared to a absolute max
but I am not sure how we can use this aproach to get to a point where gain
can have units. Just musing Richard to see how we can get back to realistic
figures without having to journey into 'space'. Roy, do you have any thoughts
in this area ?
Regards
Art

2014. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 05:30:25 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <aqb50e23op@enews1.newsguy.com>
Source record: 131720

Understood, come to think of it, I haven't seen Ed in there either. Either way, I still look at the newsgroups as merely entertainment, as well as the occasional learning source.

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DC8228E.E9985E33@ieee.org...
> KC8PMX wrote:
> > Hello Cecil.... haven't seen ya in a while in r.r.a.p. (Believe it or not,
> > you have been missed.) Even posted a querie there.
>
> Ed Hare and I were in email contact and mused about why each of us was
> on r.r.a.p. Neither one of us could come up with a rational reason to
> be there except to kill time and time is going to kill me soon enough
> without r.r.a.p's help. :-)
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2015. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 05:32:06 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <aqb50f33op@enews1.newsguy.com>
Source record: 131722

Roger.... you have stated nothing below that I didn't already know.... the purposes of the discussion is to convert that to even simpler "laymens" terms.

Thanks,

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

> Ryan...for shame!
> Here you have an article titled, "A Verbal Graphic Description of Gain
> Antenna Operation". It was in CQ magazine back in the late 70s. The author
> is local. Most in the club should remember...well, then again, many of them
> are getting along in years. I've seen it happening over many decades....Now
> we were talking about what?
>
> Basically in a Yagi:
>
> The element lengths and spacings are such that, going step wise.
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> 1. The signal is radiated by the driven element
> 2. The radiated signal creates a current in the reflector whos length and
> spacing is shuch that when the reflector reradiates the signal it will be
> out of phase with the next cycle from the driven element which cancels much
> of the signal to the rear.
> 3. The director, like the reflector reradiates a signal, but it's spacing
> from the driven element and length put it's signal in phase with the next
> cycle from the driven element, adding to the signal strength in that
> direction.
>
> Element lengths and spacings are often varied a bit to give wider band
> width, at the expense of gain. Higher front-to-back also comes at the
> expense of gain. That being the case, most Yagi antennas are a compromise
> between maximum gain, front-to-back, and bandwidth.
> The article takes you through it step-by-stp.
>
> If he can find the article, I'm certain the author would be happy to make
> some copies for you. As CQ holds the copyright, others would have to

contact
> them to get the complete article.
>
>
> --
> Roger Halstead (K8RI EN73)
> www.rogerhalstead.com
> N833R World's oldest Debonair? (S# CD-2)
> > manner. Take this as if you were trying to explain this to someone who
> does
> > not have much knowledge of radio theory, say for instance, like your
> > grandmother or an aunt somebody like that.
> >
> >
> > Like I stated, I can explain it in the technical manner, but am trying
to
> > figure out how to explain it to average person with little to no radio
> > theory experience...
> >
> >
> > Thanks,
> >
> >
> > --
> > Ryan, KC8PMX
> > FF/MFR
> > REMOVE "NOSPAM" in email address to reply.
> >
> >
>
>

2016. Re: Can't Find Insulators:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 05:34:35 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <aqb50g43op@enews1.newsguy.com>
Source record: 131721

Make them! I have seen PVC pipe chunks as well as sheets of plexiglass
used for insulators, unless you want specifically the egg-type insulators.

This stuff can also be found at local construction sites, in their junk
piles, which should be really great for the extremely frugal ham. Just make
sure to ask the contractor!

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

"jack D" <jackinariz@webtv.net> wrote in message
news:24606-3DC85813-320@storefull-2137.public.lawson.webtv.net...
> I am getting a project together...I want to put insulators at the mast
> for the guylines......But i can't find insulators anywhere.....Except
> India or China.....Anyone know?..Jack D.
>

2017. Re: I just ordered a A 99 with gound plane kit

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 05:50:07 UTC
From: KB9TMP <kb9tmp@juno.com>
Message-ID: <ushbc9rjeraj32@corp.supernews.com>
Source record: 131853

"WA8ULX" <wa8ulx@aol.com> wrote in message
news:20021105204215.24115.00004130@mb-md.aol.com...
> >I have tuned and used one on 10 meters
> >for the past 15 years and it works quite well.
>
> In comparrison to what?

I've got one that works better than the 10m
dipole I made out of cat 5 computer cable
but on the other hand that ain't sayin' much
either is it? ;^)

--
'73' From KB9TMP
"The secret of life is honesty and fair dealing,
if you can fake that, you've got it made."
-Groucho Marx

2018. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 06:00:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ushc0qrei15t2e@corp.supernews.com>
Source record: 131854

You can plot, if you want, the current (in, say, amperes) along a wire vs the distance from one end (in, say, meters). Then the area under the curve is ampere-meters. However, this doesn't tell you what the radiation pattern or efficiency of the antenna is.

Remember, the current at each point has an associated phase angle. Although the current-length product (the area) along the wire tells you the field strength from that portion of wire, it doesn't tell you how it's adding to or subtracting from the others. The radiation pattern of the antenna is determined by the *vector* sum of each current-length product in each direction. If the wire has zero conductor loss and it's in free space, the efficiency is 100%, no matter how you bend the wire or what fancy curve of current vs length you end up with, or what total area lies under the curve. So there's no direct correlation between the area under the current-distance curve and the antenna's gain, pattern, or efficiency.

If you try to maximize the current-length product, you'll end up with W8JK type designs (close spaced elements driven out of phase), which have relatively high currents on the wires. But alas, there's no magic here. The fields produced by these currents largely cancel, so you end up with moderate gain -- providing you can maintain reasonable efficiency when faced with such heavy currents.

After any calculation is run by EZNEC, you'll see exactly the curve you describe in the View Antenna display. (Along each wire is an extra line whose distance from the wire is proportional to the magnitude of the current.) It's handy for seeing which parts of an antenna are contributing to the pattern and the relative magnitudes of the fields produced by various elements.

Roy Lewallen, W7EL

Art Unwin KB9MZ wrote:
>
> Help me out here Richard as I want to add 'length' so we
> introduce something that does have units.
> If we put 1 amp, say 1 Au, as the vertical side of the graph and then
> horisontally we have 1/2 wavelength, couldn't we draw the sinosoidal
> radiation curve on this graph so the AREA underneath the curve
> does have units? I am not sure what the actual units would be.
> If instead of rotation we have a linear uniform acceleration of electrons
> so instead of a curve it would be a straight horizontal line providing
> the maximum area possible (max radiation possible?) from a dipole.
> (uniform accelaration I was thinking would be something like that of gravity)
> Would something of this aproach help us to provide gain with units ?

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> but I am not sure how we can use this aproach to get to a point where gain
> can have units. Just musing Richard to see how we can get back to realistic
> figures without having to journey into 'space'. Roy, do you have any thoughts
> in this area ?
> Regards
> Art

2019. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 07:04:00 UTC
From: gcd <gcdNOSPAM@austarmetro.com.au>
Message-ID: <3dc8bedc@news.comindico.com.au>
Source record: 131855

Hi CAM,
unfortunately I am, I was sort of hoping that was coming across from my posts :)

the problem with the premise that there is 133W in the 150 ohm line is that you make this conclusion looking only at the load end of the line, ie using the reflection coeff etc you are assuming that looking into that line is 150 ohm. Its not, at the other end is a 50 ohm source, not a 150 ohm source.

Cheers
Greg

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DC7C89C.605DF10D@ieee.org...
> gcd wrote:
> > there is 100w into the 50
> > ohm load, yet it is on a 150 ohm transmission line, do you then agree
with
> > the original proposal that there is 133w incident out of the 150 ohm
line and
> > so must be 33w reflected back from the 50 ohm load?
>
> I haven't been following closely. Who the heck is disagreeing with that?
> Rho is 0.5. The load accepts Pfwd(1-Rho^2) = 133.33w(.75) = 100w. The
> reflected power is Pfwd(Rho^2) = 133.33w(.25) = 33.33w
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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2020. Re: Food for Thought corrections

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 07:21:06 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0211052321.6bcbff0@posting.google.com>
Source record: 131856

Hi Roy,
the link seems not to work. MSIE returns a "Page not found" error.

73 Ivan OK1SIP

Roy Lewallen <w7el@eznec.com> wrote in message news:<usgqr57ommlf01@corp.supernews.com>...
> Thanks to Jacques, ON5MJ and Kent, VE4KEH for spotting and reporting
> some typos in the "Food for Thought" essays. The errors were found in
> "Superposition" and "Waves and Power". These, and the text file
> containing all the essays, have been corrected and uploaded. They're
> available from ftp://eznec.com/food_for_thought/. Note that the
> directory name has been changed from "Food for Thought".
>
> I encourage anyone finding any factual errors as well as typos to please
> let me know.
>
> Roy Lewallen, W7EL

2021. Re: Can't Find Insulators:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 09:35:22 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <un5y9.2227$vZ6.2062184@newshog.newsread.com>
Source record: 131857

"Bob Miller" <bxmillerSpamNot@texas.net> wrote in message
news:qGPIPRQiHRyzyhdEss5=t+Som2OC@4ax.com...
> jackinariz@webtv.net (jack D) wrote:
>
> >I am getting a project together...I want to put insulators at the mast
> >for the guylines......But i can't find insulators anywhere.....Except
> >India or China.....Anyone know?..Jack D.
>
> Radio Works has the smaller plastic egg insulators. Texas Towers has the
large
> insulators for towers or big masts. Both have web sites.

ROHN makes sections for both the 25 and 45 that have insulators in each leg.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S/N CD-2)
>
> Bob
> k5qwg
>

2022. Re: Food for Thought corrections

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 09:39:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ushoq63n8qjdc@corp.supernews.com>
Source record: 131858

I apologize. The link should be ftp://eznec.com/pub/food_for_thought/.

Roy Lewallen, W7EL

OK1SIP wrote:
> Hi Roy,
> the link seems not to work. MSIE returns a "Page not found" error.
>
> 73 Ivan OK1SIP
>
> Roy Lewallen <w7el@eznec.com> wrote in message
news:<usgqr57ommlf01@corp.supernews.com>...
>
>>Thanks to Jacques, ON5MJ and Kent, VE4KEH for spotting and reporting
>>some typos in the "Food for Thought" essays. The errors were found in
>>"Superposition" and "Waves and Power". These, and the text file
>>containing all the essays, have been corrected and uploaded. They're
>>available from ftp://eznec.com/food_for_thought/. Note that the
>>directory name has been changed from "Food for Thought".
>>
>>I encourage anyone finding any factual errors as well as typos to please
>>let me know.
>>
>>Roy Lewallen, W7EL
>

2023. Re: Food for Thought corrections

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 09:43:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ushp384pckth35@corp.supernews.com>
Source record: 131859

I purposefully didn't use fixed length lines. You should be able to view it with Notepad, Wordpad, or any other text viewer that allows you to turn on word wrap. That way, the lines will adjust themselves to the width of your viewer's window.

Roy Lewallen, W7EL

Gilbert Mouget wrote:
>
> Lines are tooooooooo long.
> 80 characters should be OK.
> 1 zillion characters is tooooo much.
>

2024. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 10:36:54 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <y+3qWyAGDPy9EA45@ifwtech.co.uk>
Source record: 131862

Gilbert Mouget wrote:
>
>> Not if the units are watts and horsepower.
>
>What is the dimension of watt to horsepower ratio ?
>
Thank you, Gilbert. It needs a Frenchman to remind us that units and dimensions are not the same thing.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

2025. Re: ??Constructing an external antenna for cell phone??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 11:53:33 UTC
From: James Knott <bit_bucket@rogers.com>
Message-ID: <1p7y9.15$MGm1.2@news02.bloor.is.net.cable.rogers.com>
Source record: 131860
Cross-posted to: alt.cellular.motorola,alt.cellular.tech,alt.cellular.verizon,rec.radio.amateur.antenna,rec.radio.shortwave

That Larry wrote:

> Yeah, I have the connector from Cellantenna.com in Florida to plug my
> V60i into my DA4000 linear amplifier.

Do cell phones require linear amplifiers? They are required for AM and SSB,
but not FM or PM.

> The center conductor button
> ISN'T spring loaded to firmly press it against the crappy connector on
> the back. It sucks!
>
> Whatever happened to SMA connectors that SCREW on?? SMA is tiny,
> rated to 12.4 Ghz and is a STANDARD connector. Stupid Moto, very

I suspect they want a "drop in" type connector, instead of one that has to
be screwed in. I have a Larsen "Quick Mount" slide in mount for my dual
band transiever. It has a connector that's a BNC, modified so that it can
be slide in, without requiring a lock.

--

Fundamentalism is fundamentally wrong.

To reply to this message, replace everything to the left of "@" with
james.knott.

2026. Re: Tuning trap/parallel dipole question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 12:02:08 UTC
From: KC1DI <elbc2@gwi.net>
Message-ID: <u31isu0e5tthr0bj8b4i8lfuga2jcs8lsp@4ax.com>
Source record: 131861

On Wed, 06 Nov 2002 04:15:13 GMT, "Ku3o" <ku3o@arrl.net> wrote:

>

You should start 40 M then 20, 10 , 15 etc.
Happy Haming.
73 dave kc1di

2027. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 12:59:50 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <9n8y9.5791$3e2.1017236@news20.bellglobal.com>
Source record: 131863

"Gilbert Mouget"
> What is the dimension of watt to horsepower ratio ?

1 / 746 (unitless).

2028. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 13:20:35 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC91723.6631C9ED@ieee.org>
Source record: 131865

gcd wrote:
> the problem with the premise that there is 133W in the 150 ohm line is that
> you make this conclusion looking only at the load end of the line, ie using
> the reflection coeff etc you are assuming that looking into that line is 150
> ohm. Its not, at the other end is a 50 ohm source, not a 150 ohm source.

Never mind that we can measure 133.33w of forward power and 33.33w of reflected power on a wattmeter calibrated for 150 ohms?

The 50 to 150 ohm impedance discontinuity at the 50 ohm feedline to 150 ohm feedline junction has the same magnitude of reflection coefficient as the 150 ohm feedline to 50 ohm load junction. The 50 ohm virtual impedance match you see looking into the 150 ohm feedline is the *result* of interference patterns set up by reflections and re-reflections of the forward and reflected waves when they encounter the real-world impedance discontinuity at the 50/150 ohm junction between the two feedlines. The 50 ohm matched virtual impedance is the *result*, not the cause of anything. Virtual impedances, like this one, are the *result* of the math model we use that make thinking about the situation a little easier. What happens in reality at the impedance discontinuity can best be understood using the principle of superposition (and/or quantum physics).

Assume the following *general* case of a 50 -> 150 ohm junction of two feedlines. Note that this is a general case as opposed to the special matched case that we have previously been discussing.

```
Source-------50 ohm feedline----+======150 ohm feedline=======50 ohm load
Pfwd1---> Pfwd2--->
<---Pref1 <---Pref2
```

If Pref1/Pfwd1 is not equal to Pref2/Pfwd2, then wave interference exists. If Pref1/Pfwd1 is less than Pref2/Pfwd2, then there is destructive interference on the source side of the junction with a corresponding constructive interference on the load side of the junction. If Pref1/Pfwd1 is greater than Pref2/Pfwd2, then there is constructive interference on the source side of the junction with a corresponding destructive interference on the load side of the junction. If Pref1/Pfwd1 equals Pref2/Pfwd2, then there is no interference and the forward and reflected waves are orthogonal to each other at the impedance discontinuity.

The interference patterns cause the virtual impedances. The virtual impedances are the *result* of superposition and are not the cause of anything. Well, I must admit that virtual impedances do cause certain things - many firings of neurons in the human brain and much ado over nothing. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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2029. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 13:25:38 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC91852.95C30741@ieee.org>
Source record: 131867

Gilbert Mouget wrote:
>
> CAM, <Cecil.A.Moore@ieee.org> says...
> > I had a 40m 1/4WL vertical with 8 radials at 20 ft. It was a dog
> > compared to my dipole at 40 ft. It wasn't even worth leaving in
> > the air as a lightning rod.
>
> Was it a dog for local, DX or both ?

I tried and tried but I never heard any signal, day or night, that was
stronger on the vertical than on the dipole. In addition, the noise level
on the vertical was two S-units above the dipole's. In my case, it was
a lot of work for absolutely no reward.
--
cheers, CAM http://www.qsl.net/w5dxp

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2030. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 13:29:05 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC91921.AFB9797C@ieee.org>
Source record: 131864

Gilbert Mouget wrote:
>
> CAM, <Cecil.A.Moore@ieee.org> says...
> > Not if the units are watts and horsepower.
>
> What is the dimension of watt to horsepower ratio ?

watt/horsepower (You left out the smiley face. :-) I was
getting back at Richard for his truculent Aggie joke.
--
cheers, CAM http://www.qsl.net/w5dxp

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2031. Re: Quik 4:1 balun ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 13:33:42 UTC
From: Paolo Barsotti <ik5ztt@email.it>
Message-ID: <22fcc77043f94e89280f646f50c7c1d3.113193@mygate.mailgate.org>
Source record: 131866

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:h7adnRHCX4-Ef16gXTWc3w@comcast.com

> Paulo,
>
> Do you need it for wide band, or only one band? It makes a huge difference.
> What is the frequency?
>
> Tam/WB2TT

hi Tam,
this balun should used for Sagant mt240x multiband dipole: I've coils
(two
mt240xt) but no balun; band needed are 3.5/7/14/21/28 !!!
Someone from Newslettwers told me balun mybe is 4:1
can you help me ?

--
Posted via Mailgate.ORG Server - http://www.Mailgate.ORG

2032. Re: MaxComm antenna tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 13:38:56 UTC
From: N2EY@AOL.COM
Message-ID: <c2356669.0211060538.7deb8cc2@posting.google.com>
Source record: 131868

"J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote in message
news:<o%Ex9.2732$3e2.518201@news20.bellglobal.com>...
> "N2EY"
> >> <CAM's> point is valid - I was thinking about
> >> reasonable antenna lengths and reasonable feedpoints.
> >
> > "reasonable" is in the eye of the beholder. I think
> > Cecil's one-wavelength dipole is a very reasonable
> > length. I'd put the feedpoint Z at around 4000 ohms
> > rather than 6000, but that's a minor point.
>
> I meant reasonable feedpoint as in 'reasonably-low impedance'. Sorry. And,
> to save bandwidth, I'll admit now that there is nothing inherently
> 'unreasonable' with a Hi-Z feedpoint provided that you take it into account
> and somehow match it to your rig.

OK, I understand now. But the result is still the same - if you have a
low-Z feedpoint, it's fairly easy to match it to 50 ohms with much
less loss than resistive loading. One's money is much better spent on
an SGC-type autotuner. For far less money, a simple L network will
match almost anything, and freeware like Reg Edwards' DIPOLE3 or
ENDFEED programs will give you L and C values in a few seconds. Or
adapt CAM's transmission line idea.

For the yacht example, compare the price of Maxxcomm to the price of
an SGC-type tuner of the same power level.
>
> > The fact that they don't even specify the alleged
> > patents tells you something.
>
> I was poking around the patent office website (www.uspto.gov) and I couldn't
> find anything that resembled it. Of course, one can never prove a negative.
> Maybe the patent (s?) has nothing to do with the basic concept.

'zactly. The patent could be for the method of potting the thing in
epoxy, for all we know.

When they don't give a clear explanation of how it works, and/or refer
to patents without giving the number, you gotta be suspicious.

And here's the rub: Even an antenna with 4% efficiency will make some
contacts. Feed it 100 watts and it will radiate 4 of them, putting you
at the same ERP level as a QRPer running 4 watts out and an antenna
with 100% efficiency.

Just don't expect "100 watt" results.

73 de Jim, N2EY

2033. Re: Quik 4:1 balun ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 13:45:52 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC91D10.7B1B95BE@ieee.org>
Source record: 131719

Paolo Barsotti wrote:
> this balun should used for Sagant mt240x multiband dipole: I've coils
> (two
> mt240xt) but no balun; band needed are 3.5/7/14/21/28 !!!
> Someone from Newslettwers told me balun mybe is 4:1
> can you help me ?

Amidon has a balun kit for about ten bucks that can be wound in a 4:1
configuration. The part number is AB240-125.
--
cheers, CAM http://www.qsl.net/w5dxp

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2034. Re: Can't Find Insulators:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 13:51:22 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <9x3JPY6ljg+IUEesbc=Usa92nx91@4ax.com>
Source record: 131723

jackinariz@webtv.net (jack D) wrote:

>Thanks Bob....I will check those sites....I have been to Texas Towers
>but i guess I looked in the wrong part of the site....

Look under "tower hardware" and then "misc. hardware"

Bob

>Will check
>both..Thanks again....Jack D.

2035. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 15:17:34 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <3DC9328D.AE9372E3@ziplog.com>
Source record: 131724

Cecil .. we only live a scant few miles apart as things go in this game.

CAM wrote:

> I had a 40m 1/4WL vertical with 8 radials at 20 ft. It was a dog
> compared to my dipole at 40 ft. It wasn't even worth leaving in
> the air as a lightning rod.
> --
> cheers, CAM http://www.qsl.net/w5dxp

Our results on 40 are FAR different. We are, what, about 20 miles or so apart here in the South Central
Texas area? I don't spend the time working the CW DX contests on 40 like I used to. I've simply run out of
countries to chase in them! But here's the summation of over twenty uears of comparison to what you just
posted, from my perspective. We are talking about almost 50 years of experience at my end.

Early on I used a dipole at from 40 to 50 feet up on 40 CW. Over the years my country count in the either
the ARRL or CQ contests of perhaps 60-80 countries per test, conditions, skill and whatnot. I switched to a
quarter wave vertical at ten feet up with four radials over the same ground at the same location. End
results; a steady average of roughly 70-90 countries per contest. Down came the dipole forever.

I switched to a pair of three element wire low quads just for funzy, suspended between an experimental 80
meter 4 square. Results; some 80-90 countries in the annual bug smashing tests for DX. But I did break my
all-time total number of single-band 40 CW total contacts in the ARRL SS CW tests which had stood, at that
point since 1954 at about 700 - 40 meters only. Even corner fed, it seems like it was ionizing enough air
over the place above me to maybe help out. Whatever, it was a GREAT Stateside directional array! Huge
grin. It also produced my first ever clean sweep on 40 CW single band in the SS. Grin.

Frankly, the single elevated vertical on 40 CW produced about as good results in cracking the DX pileups as
the wire cage game!

Seeing the comparison between it and a single elevated vertical on 40, I went ahead and created the full 40
meter elevated 4 square, all shunt fed and totally grounded elements, by the way. The shunt

fed issue is the
way I first put up one of these elevated 40 meter verticals and it has seriously reduced the RF into the
shack area with the lightning strikes.

Poof ... up went the country total in the tests, reliably and repeatably, to about the 100 country total per
test. More important, in the tests, I began to consistently hear about ten more countries each test that I
could contact! Thus the practical effect of, "If you can't hear 'em, you can't work 'em", has come full
circle. And that's with a pair of lovingly hand crafted 4-400's and the legal limit and no more being used
to drive all of this stuff since 1974 and a pair of 4-65's since 1958 or so.

In other words, it will take better than an elevated 4 square with four radials to get through the pileups,
in practice, to work what it will hear now at this QTH.

The elevated 4 square on 40 CW has now been up since about 1985 out at the place. It's had a total of three
phase boxes replaced being blown to bits by lightning strikes, but with the solid grounded gamma matched
elements, and panel protection on shack entry for the lines feeding it, nothing has proceeded into the shack
from it. That does mean, for 'truth in lending' purposes to this gossip being lent, that there is ADDITIONAL
grounding effects here! Under the poles at the bottom of them where they tie to a ground stake each, that
ground stake does have several short feeler radials which are there to help sink the strike of Dr. Zeus; they
seem to. I'm sure that this contributes somehow, a tiny bit to something, but I've not got time to go
modeling all this tripe.

At an original 300 CW only confirmed 40 CW application for DXCC, over 45 years or so in the making, the point
of all this, in practice, has come clear. The now ten more for 310 confirmed on 40 CW only are emphasis for
the point. I can hear what I can't work, grin, as I am frequently winding up going out to the place and
coming back with this, "Oh rats and hampsters", feeling now! As you know, staying up all night to work this
^%$&^%$ on 40 or 80 takes its toll in other ways!

Now all this has another very important point in answer to the original poster's question. It all depends on
what kind of ground conditions you have under the array for 40 meters, at YOUR location!

Where we may differ in our results in practice, even though we are only a few miles apart here, may have to
do with soil conductivity. My site is in the appoach area to the Navasota River bottoms. If they ever get

around to building the Millican Reservoir they have politcally fought over for years, the water for that huge
pond will in the property just Southeast of me, and it's only a ten acre chunk. The lay of the land drops
off close to 100 feet into the flood plain for it right smart like, and there are 60-80 foot ravines in our
land alone that are co-incident to this issue of grounding!

This place does have pretty fair conductivity, compared to just a few miles away where, in Texas, we hit the
pine tree sand soil. The fault line which goes all the way from up near Texarkana down and over just this
side of Navasota, and over this side of Brenham into Austin and out into the Hill Country, is just on the
other side of the Navasota River we are talking about.

Those poor souls in the other side of the Navasota Trench who are hames, really do have worse soil and ground
conditions for antenna site considerations. And there will be no way either or us will EVER do what even a
dipole can do up in the Waco area, up in the Greenville area where Gerald has his awesome 3 element
full-sized rotary array on 80 meters! Part of your answer, and that of the gent who posted the question,
may lie in the actual ground conditions under this mystical vertical or dipole question.

Your case may be exactly what it is for that reason, propagation come to Jesus meeting time at the earphones!

OTOH, the only way I will ever be able to get a dipole here to be any better than a vertical on 40 CW, for 45
years worth of experience and proof in the logs at what can be heard and worked, is for there to be more than
one of them up there!

That will also mean at least two of them would have to be there at better than 60 feet to be as good as what
I've got. To get any better TRANSMIT gain so that they can hear me whom I can't work now, it will have to be
at least THREE of them at least at about 80 feet, per the charts, in a rotary array.

But there is good argument about another variation of that which I think would be even better for most us
hams.

Gerald and I, K5GW, have had some discussion about this. My theory is that the ideal 40 meter or 80 meter
antenna, for what we hams really seem to want, in practice, is a SIX element horizontal rotary array at 90
feet up on 80 or 45 feet or so on 40 meters. If you do the model work on that, you'll find that the
radiation pattern is awfully clean and the averate vertical takeoff angle really approachs

what the average
ham probably wants. That yet with enough energy in the lower angles to do what is needed, in practice, for
the really long haul stuff.

He says he will erect it and test it on 80 if I will build it, and compare it to his current 3 element
creature at 195 feet up.

Gerald is, as far as I have ever known over twenty years of knowing him, a man of his word.

Sort of like the song Marty Robbins had out years ago, "All drinking stopped and the tick of the clock, said
that Death would wait ten seconds more..."

****

I believe that this gent, and I too, would find that a single dipole up at 120 feet or so on 40 would
seriously be a better antenna than the elevated vertical at a quarter wave up on that band. That given
average ground characteristics under the two devices. But at 40 feet, no way, in practice, for at least the
DX chasing game, based on what I see here.

The results and signal of W8JI on low band, support my contention, I hold out to you. But they are not from
a 40 meter dipole at 40 feet up as far as DX and low angle paths are concerned, I hold. And they are from a
decent ground conductivity location as well, I think.

However my location is a very quiet low noise rural location, in an undisturbed soil situation, with at least
average to perhaps a bit better than average soil conductivity. Thus maybe that also anwers why my results
have been as they have been for some 45 years at this.

--

--> Sleep well; OS2's still awake! ;)

Mike Luther
W5WQN

2036. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 15:44:52 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211060744.1d3ebba2@posting.google.com>
Source record: 131725

Roy Lewallen <w7el@eznec.com> wrote in message news:<ushc0qrei15t2e@corp.supernews.com>...
> You can plot, if you want, the current (in, say, amperes) along a wire
> vs the distance from one end (in, say, meters). Then the area under the
> curve is ampere-meters. However, this doesn't tell you what the
> radiation pattern or efficiency of the antenna is.

Well I defer to your judgement for the moment.As I said I am just
musing.

> Remember, the current at each point has an associated phase angle.
> Although the current-length product (the area) along the wire tells you
> the field strength from that portion of wire, it doesn't tell you how
> it's adding to or subtracting from the others.

I have a problem with that statement as an engineer.You are refering
to to radiation but only to that created in cyclic form only?

>The radiation pattern of
> the antenna is determined by the *vector* sum of each current-length
> product in each direction.

So for only considering a cyclic form of radiation you have meaningful
unitsring to radiation created in cyclic form i.e relative to
frequency ? This being equal distribution of energy either side of the
radiatorShould we not as engineers think in absolute terms ?
Are not the limits of distribution created when all radiation is
squeezed from one side to the other?

If the wire has zero conductor loss and it's
> in free space, the efficiency is 100%, no matter how you bend the wire
> or what fancy curve of current vs length you end up with, or what total
> area lies under the curve. So there's no direct correlation between the
> area under the current-distance curve and the antenna's gain, pattern,
> or efficiency.
I don't feel comfortable by deviating to space at this point.
So far I would suggest that in absolute terms we have established max
possible radiation which is that created in linear form. We have also
established max radiation of a standard dipole (Again looking at the
area under the curve) Thus we have a comparison of radiation compared
to the absolute. We also know that this radiation is balanced either
side of the radiator
If we move area from one side to the other by 'squeezing' have we
not generated gain on one side which is a measurement of area?
As for wire resistance electric engineers have handled this quite
easily in the past without venturing into outer space.
In re re-examining the above it is to be noted that Newton laws with

respect to acceleration (the underpinnings of radiation) also said
that every action has an equal and opposite reaction which says that
wee have to consider cycles
(area above and below the graph line) which provides equal are on both
sides
and we must also admit that deceleration must also provide radiation.
Unfortunately this puts me in the position of say radiation is a
series of pulses which I said some ten years ago on this antenna group
and was met with total opposition (That's what happens when you start
thinking beyond your qualifications)so what is needed bright and
educated people who are also uridite
and willing to look beyond difficulties for resolution and not those
who live for derrision. I cannot do this because I have personal
problems but I am confident that there are many of this group can
carry this aproach with eloquence. Yes Richard, it would be crazy not
to separate ground reflected gain
and I believe that the above aproach does just that. Since ground
reflection is not the creator of radiation it falls into to the
reflected or redirection of radiation as would a a multi element
array.
Best regards and apologies to those who feel such discussions are not
pertinent
to what is considered as just a hobby.
Regards
Art

> Roy Lewallen, W7EL
I was thinking would be something like that of gravity)

snip

> > figures without having to journey into 'space'. Roy, do you have any thoughts
> > in this area ?
> > Regards
> > Art

2037. A different antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 16:10:12 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211060810.2accf548@posting.google.com>
Source record: 131726

I am now at a position to finalise a new 'home brew' antenna
that may be of interest to some.
It is quite a long unsevered dipole,320 inches per side and to
which I have also added capacity hats (6 inches diameter)
To this dipole I have added a loop antenna
at its center where part of the loop and the capacitor
(variable upto 1000 pF/5kV) is enclosed within the dipole element
I will feed this dipole combination by a delta feed and probably
will have to add a transformer because of the antennas high impedance.
I cannot model this because of the partial loop radiation that
is shielded . Thus I am making the antenna to determine what
radiation pattern it provides at different frequencies obtained
thru variation of the capacitor.
Perhaps some would like to predict what I am about to find,
or even to model it if they have the capabilities. (tower ht
820 inches)

Regards
Art KB9MZ.....XG

2038. Re: Tuning trap/parallel dipole question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 16:57:11 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <zrScnVzUCYUG1FSgXTWc3A@comcast.com>
Source record: 131727
Cross-posted to: alt.ham-radio.hf,rec.radio.amateur,rec.radio.amateur.antenna

George,

With parallel dipoles, the longest wire has more effect on the shortest. Whereas, with a trapped dipole, the higher frequency has to be adjusted first. Since the 20/40 is the longest wire, I would adjust:
20 first
40 second
15 next
10 last

After you have done that, you may have to repeat the whole think. I have multiple dipoles at 12, 17, and 40 meters (no traps). When I ran the thing on EZNEC, the only way I got it to converge was to go 40>17>12. This worked out in the real world. Your 20 m trap will probably prevent the 40 m from interfering with the 15.

Tam/WB2TT

"Ku3o" <ku3o@arrl.net> wrote in message
news:lH0y9.236213$S8.4384211@twister.tampabay.rr.com...
Folks,

I need to tune my Alpha Delta DX-EE multiband trap/parallel
dipole.

My question is, there surely must be interaction between
the wires, so which bands do I tune first? 10 Meters
first and 40 meters last?

or the other way around...

10 meters is dedicated wire
15 meters is dedicated wire
20 and 40 are shared with traps (ok, Alpha Delta
calls them ISO-RES coils)

```
40 Meters 20 Meters 20 Meters 40 Meters
--------||||||-----------------------------||||||---------
-----------/|\----------- 15 Meters
----/ | \---- 10Meters
|
|
```

Thanks,
George

2039. Re: Can't Find Insulators:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 17:02:39 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <fkGdnTSMM6R_11SgXTWcpA@comcast.com>
Source record: 131728

Jack,

Have you considered nonmetallic guys. Believe Texas Towers sell that too.

Tam/WB2TT
"jack D" <jackinariz@webtv.net> wrote in message
news:24606-3DC85813-320@storefull-2137.public.lawson.webtv.net...
> I am getting a project together...I want to put insulators at the mast
> for the guylines......But i can't find insulators anywhere.....Except
> India or China.....Anyone know?..Jack D.
>

2040. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 17:23:01 UTC
From: richardharrison@webtv.net
Message-ID: <8632-3DC94FF5-28@storefull-2315.public.lawson.webtv.net>
Source record: 131730

Art Unwin, KB9MZ wrote:
"If instead of rotation we have a linear uniform acceleration of electrons so instead of a curve it would be a straight horizontal line providing the maximum area possible (maximum radiation possible?) from a dipole."

Terman`s 1955 edition of "Electronic and Radio Engineering" knows all and tells all. Chapter 23 on antennas begins on page 864 which also lists most of the other antenna books you would need.

On page 866 is Fig. 23-2 showing radiation contributions of elemental segments of an antenna. They are proportional to the current in a particular element of the antenna. They are supportive in producing radiation as long as the currents aren`t at odds with each other. Figs. 23-3 and 23-4 on page 867 show what happens when an antenna exceeds 1/2-wavelength which causes phase reversal in some wire segments.

One can make an array of 1/2-wave elements, stringing them together for whatever length by including phase inverters every 1/2-wavelength.

Or one can make an array of 1/2-wavelength elements side by side in a plane, driving them all in the same phase, etc.

Art`s interest seems to be in a simple dipole used on more than one band, a method of matching that dipolte at its junction with its feedline, and application of that dipole to a parasitic array. I`ve tried to read between the lines of Art`s postings and may have it wrong.

From Art`s statement at the top, I gather he wants more current towards the ends of his dipole so they aren`t loafing in the radiation department.

For a single band, a short dipole with capacitive hats at its ends may give fairly uniform current distribution. See Terman`s Fig. 23-24 T-antenna with its earth image on page 887. A dipole in space works the same if the image is replaced with real wire.

For multiband dfipole operation, the capacitive hats could be combined with traps for coupling between segments. Yes, traps are lossy.

See Cecil`s multiband dipole matching scheme for something practical.

Best regards, Richard Harrison, KB5WZI

2041. Re: Hustler 4BTV Help Needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 17:51:03 UTC
From: Larry Moss <larrymoss@citcom.net>
Message-ID: <aqbknn$59j3$1@news3.infoave.net>
Source record: 131729

Is is not an issue of antenna efficiency? The use of radials will improve the over all efficiency is what I have always been lead to believe. 73 Larry/W4LM

"K9SQG" <k9sqg@aol.com> wrote in message news:20021105192107.06119.00000068@mb-bd.aol.com...
> Dan,
>
> Sounds like the antenna needs to be adjusted to get the SWR down for the parts
> of the band that you want to use.
>
> Unfortunately, some brands seem to want to defy the laws of physics and state
> radials are not needed. This is NOT true. For those that believe, no proof is
> necessary, for those that don't believe, no proof is possible. A ground
> mounted vertical without radials will perform but not nearly as well as one
> with radials.
>
> 73s,
>
> Evan

2042. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 18:06:16 UTC
From: richardharrison@webtv.net
Message-ID: <5021-3DC95A18-32@storefull-2312.public.lawson.webtv.net>
Source record: 131732

I wrote:
"One power ratioed to another is dimensionless."

The French may have a better word for this, but we don`t need to be corrected by Gilbert Mouget on this statement.

Dimensionless means without size.

Does the fraction 2/3 define a size? Not until the units are specified. Like fractals, we can have any number of "self-similar" figures of no particular size..

Best regards, Richard Harrison, KB5WZI

2043. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 18:13:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <usimtitlf73s2c@corp.supernews.com>
Source record: 131731

Sorry, I can't make much sense out of your response.

What's a "cyclic form" of radiation? Something new we can apply to make all our miracle antennas work, like "critical coupling" or "orgone"?

Roy Lewallen, W7EL

Art Unwin KB9MZ wrote:
> Roy Lewallen <w7el@eznec.com> wrote in message
news:<ushc0qrei15t2e@corp.supernews.com>...
>
>>You can plot, if you want, the current (in, say, amperes) along a wire
>>vs the distance from one end (in, say, meters). Then the area under the
>>curve is ampere-meters. However, this doesn't tell you what the
>>radiation pattern or efficiency of the antenna is.
>
>
> Well I defer to your judgement for the moment.As I said I am just
> musing.
>
>
>>Remember, the current at each point has an associated phase angle.
>>Although the current-length product (the area) along the wire tells you
>>the field strength from that portion of wire, it doesn't tell you how
>>it's adding to or subtracting from the others.
>
>
> I have a problem with that statement as an engineer.You are refering
> to to radiation but only to that created in cyclic form only?

>>The radiation pattern of
>>the antenna is determined by the *vector* sum of each current-length
>>product in each direction.
>
>
> So for only considering a cyclic form of radiation you have meaningful
> unitsring to radiation created in cyclic form i.e relative to
> frequency ? This being equal distribution of energy either side of the
> radiatorShould we not as engineers think in absolute terms ?
> Are not the limits of distribution created when all radiation is
> squeezed from one side to the other?
>
> If the wire has zero conductor loss and it's
>
>>in free space, the efficiency is 100%, no matter how you bend the wire

>>or what fancy curve of current vs length you end up with, or what total
>>area lies under the curve. So there's no direct correlation between the
>>area under the current-distance curve and the antenna's gain, pattern,
>>or efficiency.
>
> I don't feel comfortable by deviating to space at this point.
> So far I would suggest that in absolute terms we have established max
> possible radiation which is that created in linear form. We have also
> established max radiation of a standard dipole (Again looking at the
> area under the curve) Thus we have a comparison of radiation compared
> to the absolute. We also know that this radiation is balanced either
> side of the radiator
> If we move area from one side to the other by 'squeezing' have we
> not generated gain on one side which is a measurement of area?
> As for wire resistance electric engineers have handled this quite
> easily in the past without venturing into outer space.
> In re re-examining the above it is to be noted that Newton laws with
> respect to acceleration (the underpinnings of radiation) also said
> that every action has an equal and opposite reaction which says that
> wee have to consider cycles
> (area above and below the graph line) which provides equal are on both
> sides
> and we must also admit that deceleration must also provide radiation.
> Unfortunately this puts me in the position of say radiation is a
> series of pulses which I said some ten years ago on this antenna group
> and was met with total opposition (That's what happens when you start
> thinking beyond your qualifications)so what is needed bright and
> educated people who are also uridite
> and willing to look beyond difficulties for resolution and not those
> who live for derrision. I cannot do this because I have personal
> problems but I am confident that there are many of this group can
> carry this aproach with eloquence. Yes Richard, it would be crazy not
> to separate ground reflected gain
> and I believe that the above aproach does just that. Since ground
> reflection is not the creator of radiation it falls into to the
> reflected or redirection of radiation as would a a multi element
> array.
> Best regards and apologies to those who feel such discussions are not
> pertinent
> to what is considered as just a hobby.
> Regards
> Art
>
>
>>Roy Lewallen, W7EL
>
> I was thinking would be something like that of gravity)
>
> snip
>

>
>>>figures without having to journey into 'space'. Roy, do you have any thoughts
>>>in this area ?
>>>Regards
>>>Art
>>

2044. Re: I just ordered a A 99 with gound plane kit

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 18:33:22 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211061033.3f2505a0@posting.google.com>
Source record: 131733

k9sqg@aol.com (K9SQG) wrote in message
news:<20021105191841.06119.00000067@mb-bd.aol.com>...
> It's really not possible to answer your questions with any degree of precision
> without knowing the type of terrain you're near, what obstructions (buildings,
> trees, hills, etc.) are nearby, and so forth. With my experiments, I
> determined that the Antron was the best vertical I had used and I made on the
> air tests with several other verticals and switched back and forth. The Antron
> equalled or surpassed (slightly) a 3/4 wave vertical and was 1-2 S units higher
> than 1/4 and 5/8 wave verticals . Measurements were made at a range of less
> than 20 miles. Most people using a "copy stick" would disagree with the
> findings but I have confidence in my findings for the conditions under which
> the data were collected.
>
> As a side note, the radials improved the signal, further out, but only a
> fraction of an S unit, not worth the cost in my opinion.

The radials are basically a decoupling section on that antenna. They
decouple the feedline so it doesn't act as part of the antenna.
Currents on the line can skew the pattern upwards off the horizon and
you lose any gain you might have over a 1/4 wave.
They don't make a "drastic" difference, but I think they are worth
using overall. BTW, I bet if you converted your 5/8 antenna to having
3/4 wave sloping wire radials, it will be the best of the bunch. I
also made the same tests a few years ago, but the 5/8 always won here.
But, I was working quite a bit farther than 20 miles at times.
Probably 30-40 miles or even farther many times. Also, the normal
skywave stuff ..Also, the 1/2 wave I used was a ringo with added
decoupling, not an A99. But the gains should have been appx equal for
both. Decoupling the 1/2 wave made a noticable difference here. But
here, the 1/2 wave even decoupled was always the 2nd best antenna. But
it was no slouch at all. But the 5/8 with 3/4 wave radials beat it by
a noticable amount every time here when working 30 miles away. I
always used 36 ft as the base height for all the antennas. "radio
shack pushup mast" Also, as a side note...Those A99 antennas are 1/2
wave radiators. They don't have any less or any more gain than any
other half wave radiator. The degree of decoupling can effect the
results though. Ignore any inflated gain numbers seen in ad's.
According to some I've seen, a 3 el yagi would be lucky to compete. Of
course, in the real world a 3 el yagi would outdo a A99 by a large
margin. You can check out a page I did on modeling the different
types. http://web.wt.net/~nm5k/acompari.htm
I came up with one model as what I think is the "ultimate" vertical
for 10m use. But it's more of a dual 5/8 antenna. Kind of a perverted
isopole for 10m except I would just use sloping radials instead of

cones. For the best results, it should have a 2nd decoupling section under the lower 5/8 section. You could use a line of coax and a 2nd set of 1/4 radials.
Actually, it would probably work fairly well with no extra decoupling at all. I used no extra decoupling on the 5/8's with 3/4 wave radials. The antenna with 3/4 wave radials is easy as the antenna requires no extra matching tweaks, and worked well. Modeling that radial length showed it to give you the "standard" gains expected from a 5/8 vertical. So it seems to cure the problem many complain about as far as too short of radials, and the higher angles caused by those. Which is true, when using 1/4 wave radials. MK

2045. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 19:40:12 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aqbr6rero1@knossos.btinternet.com>
Source record: 131734

In my case, it was
> a lot of work for absolutely no reward.
======================

CAM, wrong ! I'm sure you learnt a lot from it. Which was your primary objective.

2046. Re: Can't Find Insulators:<ALL>

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 20:13:13 UTC
From: jackinariz@webtv.net
Message-ID: <13274-3DC977D9-52@storefull-2131.public.lawson.webtv.net>
Source record: 131735

I want to thank all of you for the help.....I think now I have several options...I will get more than I need and save the rest as spares..Thanks again....Jack D.........KD7RUF.

2047. Re: Quik 4:1 balun ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 21:17:18 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aqc0st$i74$1@venus.btinternet.com>
Source record: 131737

> Hi dear,
> how is a quick and economic way to built a 4:1 balun , for 150W
> only maw into ?
> Do you know one ?
==========

Get a 2-inch (50mm) diameter, fat ferrite ring, preferably NOT
power-frequency quality.

Wind on 7 or 8 turns of 18 or 16 gauge Radio Shack twin speaker wire or
something similar.

Make a few soldered connections, and the job's done. To make sure of 160m
add another turn. But 10m might have a slightly different imedance ratio.
Not that it would matter very much. Don't suffer from delusions of accuracy.
Marconi never suffered from such problems.

For performance versus frequency, download in a few seconds, program BALUN4
from website below. Run immediately.

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

2048. Re: Tuning trap/parallel dipole question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 21:17:19 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aqc0su$i74$2@venus.btinternet.com>
Source record: 131736
Cross-posted to: alt.ham-radio.hf,rec.radio.amateur,rec.radio.amateur.antenna

"Ku3o" wrote in message
I need to tune my Alpha Delta DX-EE multiband trap/parallel
dipole.

My question is, there surely must be interaction between
the wires, so which bands do I tune first? 10 Meters
first and 40 meters last?

or the other way around...

==========

There is no answer to your questions. Every antenna system is a victim of its own environment, height, sloper or V, soil characteristics, adjacency to mast and buildings, etc., etc. Adjacency of one wire to another, number of bands of interest.

When someone has pruned lengths to his satisfaction by trial and error, in his own particular surroundings, ask him to take down the antenna and accurately measure all dimensions. And then copy it. There is a small probability you may be satisfied yourself. Your transmission line length and Zo will inevitably be different.

What do you anticipate saving from your efforts? A tuner ? No hope !

Just erect a single-wire random length dipole, with a balanced feedline of any sort, also of random length, get a tuner, and you will have an efficient radiating system which will give you ample satisfaction for a few months until you become bored (like most of us) and develop a longing to try something else.

Having learnt something you will be then be free to occupy your mind on more important (to you) matters. And your tuner will ALWAYS be useful.

Having said all that, you can be just as insanely happy struggling to tame your unruly, entirely incomprehensible multi-band, multi-wire dipole.

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

2049. Re: Tuning trap/parallel dipole question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 21:24:48 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0211061324.6c09085a@posting.google.com>
Source record: 131738
Cross-posted to: alt.ham-radio.hf,rec.radio.amateur,rec.radio.amateur.antenna

Have you contacted them to see if they have a tune up procedure?

Never seen one of these, let alone used one, but what I would do would
be to tune 20 meters first, since that would affect 40 meters.

40 Meters would be next, followed by 15 and then 10.

Jim
N8EE

2050. Re: How does a tuner match parallel dipoles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 21:49:28 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211061349.5472a74e@posting.google.com>
Source record: 131739

nm5k@wt.net (Mark Keith) wrote in message
If you are
> running 50 ohm coax, and have a tuned 1/2 wave dipole, it will radiate
> most of the power regardless of other legs unless one of the longer
> dipoles just happens to be resonant also as a 3/4 wave, or whatever.

Small correction...Actually, that would be about 1.5 wave total
length. The 3/4 wave I meant as per leg, or half the total length of
the antenna. MK

2051. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 22:49:41 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DC99C85.F880F6D6@ieee.org>
Source record: 131740

Reg Edwards wrote:
>
> W5DXP wrote:
> > In my case, it was a lot of work for absolutely no reward.
>
> CAM, wrong ! I'm sure you learnt a lot from it. Which was your primary
> objective.

But Reg, what I learned was not what I wanted to learn. :-(I thought
eight radials at 1/7 WL should do pretty well. After all, the vertical
was taller than the dipole and used more than twice as much copper as
the dipole. Where was my ROI?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2052. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-06 23:10:24 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <xjhy9.7338$3e2.1152423@news20.bellglobal.com>
Source record: 131741

"Richard Harrison" originally wrote:
> One power ratioed to another is dimensionless.

...to which "CAM" replied (apparently incorrectly):
> Not if the units are watts and horsepower.
> The devil made me say that. :-)

"Richard Harrison" inexplicably replied:
> Touche`!

Responding to CAM, "Gilbert Mouget" quite reasonably and rhetorically
asked:
> What is the dimension of watt to horsepower ratio ?

"Richard Harrison" responded:
> ...we don`t need to be corrected
> by Gilbert Mouget on this statement.

I'm confused...I thought that Richard's original statement (top) was correct
and that Cecil's (2nd above) was not correct. I really got lost starting
with the "touch".

2053. Re: Can't Find Insulators:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 00:42:43 UTC
From: k9sqg@aol.com
Message-ID: <20021106194243.00237.00002010@mb-de.aol.com>
Source record: 131742

There are usually several styles always up for auction on Ebay...

2054. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 01:40:24 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211061740.1be8d22a@posting.google.com>
Source record: 131743

Roy Lewallen <w7el@eznec.com> wrote in message news:<usimtitlf73s2c@corp.supernews.com>...
> Sorry, I can't make much sense out of your response.
>
> What's a "cyclic form" of radiation? Something new we can apply to make
> all our miracle antennas work, like "critical coupling" or "orgone"?
>
> Roy Lewallen, W7EL

Very comical..... cyclic for the normal radiator is one wavelength
after which
it repeats.With a linear radiation a cycle will be uniform
acceleration AND negative decelleration.If one wants to achieve
Zukov's idea of point radiation,
uni directional, then a phase change must be made.
Critical coupling is when two radiators are parallel to each other
between which there is a capacitance where current flow chooses the
convenient point to 'cross over' which would be the best matching
impedance point.
With respect to my post, I was only probing around to see if a way
could be found to give 'gain' electrical units, not to make a
statement of fact. Lets face it,I am prone to name things or actions
that have already been named. If one feels that there is not a problem
created by gain not having units then there is no subject to discuss.
Thank you for your time.
Regards
Art Unwin KB9MZ.....XG.

> Art Unwin KB9MZ wrote:
> > Roy Lewallen <w7el@eznec.com> wrote in message
news:<ushc0qrei15t2e@corp.supernews.com>...
> >
> >>You can plot, if you want, the current (in, say, amperes) along a wire
> >>vs the distance from one end (in, say, meters). Then the area under the
> >>curve is ampere-meters. However, this doesn't tell you what the
> >>radiation pattern or efficiency of the antenna is.
> >
> >
> > Well I defer to your judgement for the moment.As I said I am just
> > musing.
> >
> >
> >>Remember, the current at each point has an associated phase angle.
> >>Although the current-length product (the area) along the wire tells you
> >>the field strength from that portion of wire, it doesn't tell you how
> >>it's adding to or subtracting from the others.

> >
> >
> > I have a problem with that statement as an engineer.You are refering
> > to to radiation but only to that created in cyclic form only?
>
> >>The radiation pattern of
> >>the antenna is determined by the *vector* sum of each current-length
> >>product in each direction.
> >
> >
> > So for only considering a cyclic form of radiation you have meaningful
> > unitsring to radiation created in cyclic form i.e relative to
> > frequency ? This being equal distribution of energy either side of the
> > radiatorShould we not as engineers think in absolute terms ?
> > Are not the limits of distribution created when all radiation is
> > squeezed from one side to the other?
> >
> > If the wire has zero conductor loss and it's
> >
> >>in free space, the efficiency is 100%, no matter how you bend the wire
> >>or what fancy curve of current vs length you end up with, or what total
> >>area lies under the curve. So there's no direct correlation between the
> >>area under the current-distance curve and the antenna's gain, pattern,
> >>or efficiency.
> >
> > I don't feel comfortable by deviating to space at this point.
> > So far I would suggest that in absolute terms we have established max
> > possible radiation which is that created in linear form. We have also
> > established max radiation of a standard dipole (Again looking at the
> > area under the curve) Thus we have a comparison of radiation compared
> > to the absolute. We also know that this radiation is balanced either
> > side of the radiator
> > If we move area from one side to the other by 'squeezing' have we
> > not generated gain on one side which is a measurement of area?
> > As for wire resistance electric engineers have handled this quite
> > easily in the past without venturing into outer space.
> > In re re-examining the above it is to be noted that Newton laws with
> > respect to acceleration (the underpinnings of radiation) also said
> > that every action has an equal and opposite reaction which says that
> > wee have to consider cycles
> > (area above and below the graph line) which provides equal are on both
> > sides
> > and we must also admit that deceleration must also provide radiation.
> > Unfortunately this puts me in the position of say radiation is a
> > series of pulses which I said some ten years ago on this antenna group
> > and was met with total opposition (That's what happens when you start
> > thinking beyond your qualifications)so what is needed bright and
> > educated people who are also uridite
> > and willing to look beyond difficulties for resolution and not those
> > who live for derrision. I cannot do this because I have personal

> > problems but I am confident that there are many of this group can
> > carry this aproach with eloquence. Yes Richard, it would be crazy not
> > to separate ground reflected gain
> > and I believe that the above aproach does just that. Since ground
> > reflection is not the creator of radiation it falls into to the
> > reflected or redirection of radiation as would a a multi element
> > array.
> > Best regards and apologies to those who feel such discussions are not
> > pertinent
> > to what is considered as just a hobby.
> > Regards
> > Art
> >
> >
> >>Roy Lewallen, W7EL
> >
> > I was thinking would be something like that of gravity)
> >
> > snip
> >
> >
> >>>figures without having to journey into 'space'. Roy, do you have any thoughts
> >>>in this area ?
> >>>Regards
> >>>Art
> >>

2055. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 01:49:09 UTC
From: richardharrison@webtv.net
Message-ID: <5023-3DC9C695-7@storefull-2312.public.lawson.webtv.net>
Source record: 131744

J. Harvey wrote:
"Richard Harrison inexplicably replied: Touche`!"

I`ll try to explain the inexplicable. I wrote:
"One power ratioed to another is dimensionless."

CAM replied: "Not if the units are watts and horsepower."

I`ve contested in this group long enough to know better. The breadth of a statement must be limited or it likely faces a challenge. Cecil caught me with my guard down. With this group, I should have said, "the ratio of one power in watts to another power in watts produces a simple number or fraction devoid of units."

I think I know this crowd pretty well and, in another time with a different attitude, would have written more judiciously. But, I indulge in this diversion when I`m tired, sleepy, tipsy, etc., as well as times when I`m wide awake and alert. I wasn`t alert when Cecil caught me and exposed the chink in my armor. This is just a game. None of this is serious. No one is paying for any advice here.

Best regards, Richard Harrison, KB5WZI

2056. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 02:16:02 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211061816.1d12155a@posting.google.com>
Source record: 131745

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<8632-3DC94FF5-28@storefull-2315.public.lawson.webtv.net>...
> Art Unwin, KB9MZ wrote:
> "If instead of rotation we have a linear uniform acceleration of
> electrons so instead of a curve it would be a straight horizontal line
> providing the maximum area possible (maximum radiation possible?) from a
> dipole."
>
> Terman`s 1955 edition of "Electronic and Radio Engineering" knows all
> and tells all. Chapter 23 on antennas begins on page 864 which also
> lists most of the other antenna books you would need.
>
> On page 866 is Fig. 23-2 showing radiation contributions of elemental
> segments of an antenna. They are proportional to the current in a
> particular element of the antenna. They are supportive in producing
> radiation as long as the currents aren`t at odds with each other. Figs.
> 23-3 and 23-4 on page 867 show what happens when an antenna exceeds
> 1/2-wavelength which causes phase reversal in some wire segments.
>
snip
>
> Art`s interest seems to be in a simple dipole used on more than one
> band, a method of matching that dipolte at its junction with its
> feedline, and application of that dipole to a parasitic array. I`ve
> tried to read between the lines of Art`s postings and may have it wrong.
>
Yes, you are correct that my antenna interests lie with multi
frequencies so it may be used on any frequency.As a matter of interest
I am constructing a homebrew antenna with variations to my norm that
hopefully will provide a similar thing but change front to back so
that extra gain can be achieved.This I have described in another post
incase this is of interest.
Participation in THIS thread was because I thought it was obvious that
'GAIN' which has no units, was giving considerable problems to many as
indicated by the length of this thread and the repeatableness of the
subject
and thus went beyond my capabilities in an attempt to assign units.
This aproach
obviously became comical.

>
> See Cecil`s multiband dipole matching scheme for something practical.

Yes, Cecils aproach is one way of dealing with phase reversal.
Unfortunately

his method by the use of his feed line has become an antenna SYSTEM
which he would be the first to admit. My method supplies a phase
change together
with adjustment providing for varying frequency use and thus remains
an antenna
and not a antenna system. This method in no way detracts from what
Cecil has achieved it is just that we have different interests and
different ideas.
Unfortunately my aproach brings to the fore gain measurement problems
to which this thread is related.

>
> Best regards, Richard Harrison, KB5WZI

Best regards
Art

2057. Re: A different antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 02:50:53 UTC
From: fractenna@aol.com
Message-ID: <20021106215053.02951.00001957@mb-dd.aol.com>
Source record: 131746

>
>I am now at a position to finalise a new 'home brew' antenna
>that may be of interest to some.
>It is quite a long unsevered dipole,320 inches per side and to
>which I have also added capacity hats (6 inches diameter)
> To this dipole I have added a loop antenna
>at its center where part of the loop and the capacitor
>(variable upto 1000 pF/5kV) is enclosed within the dipole element
>I will feed this dipole combination by a delta feed and probably
>will have to add a transformer because of the antennas high impedance.
>I cannot model this because of the partial loop radiation that
>is shielded . Thus I am making the antenna to determine what
>radiation pattern it provides at different frequencies obtained
>thru variation of the capacitor.
> Perhaps some would like to predict what I am about to find,
>or even to model it if they have the capabilities. (tower ht
> 820 inches)
>
>Regards
>Art KB9MZ.....XG
>
>
Art--

I may be late to the party...but what are you trying to do? That is, what
problem(s) are you trying o solve?

Freq?
Gain?
Form factor?
Bandwidth?
Etc?

You are calling up some nice tools to the fray, wondering why they are needed?

Best,
Chip N1IR

2058. Re: I just ordered a A 99 with gound plane kit

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 03:02:35 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DC9D7CB.5B5CA602@cwis.net>
Source record: 131747

DJ,
The 'A99' is a good antenna, in general. They
sometimes have quality control problems, some not
being as well put together as others.
Gain is a comparative number, meaning that the
antenna in question is compared to a 'standard'
antenna of some kind, usually a 1/2 wave dipole.
Since the 'A99' ~is~ a 1/2 wave antenna, it has no
gain. Most 'CB' antenna gain figures are very much
over inflated (or they are comparing their antennas
to a beer can laying in the yard).
The groundplane add-on kit does make a very slight
difference, but I'm not sure that 'slight difference'
is worth the cost.
The 'range' of any antenna is subject to propagation
and how/where the antenna is erected, what's around it
and so on. No one can give you an accurate guess as to
the range of your set up, especially since it will be
changing all the time with propagation. At any one time,
you should get about as much 'distance' as any one else
does using the same kind of antenna.
'Doc

2059. Re: How to directly connect frequency counter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 03:18:26 UTC
From: "Bob M." <xxxxx@yyyy.zzz>
Message-ID: <goecnTcBbd0dRlSgXTWcqg@comcast.com>
Source record: 131748

Remember that the whole idea of coax is that it's shielding the center conductor, so you really should have a problem getting enough signal in your shack. It's also a safer operation when the levels of RF energy are lower.

You can put a T connector in the line, but you'll need more attenuation than you've specified. One way that often works is to remove the center pin from the port on the T connector that's going to feed the frequency counter. This gives you a nice signal level but usually won't blow out the counter or affect your other amateur equipment.

And remember that your counter won't see anything unless you key up with a CW or AM/FM signal. SSB has no carrier to measure, and no sidebands unless you're talking or feed in a continuous audio tone.

Good luck.
Bob M.
======
"Ken" <cprstn54zz@att.net> wrote in message
news:3dc7dfce.443967984@news-server.optonline.net...
> On Tue, 05 Nov 2002 14:56:18 GMT, cprstn54zz@att.net (Ken) wrote:
>
> While I am still interested in the original question, I found a
> different solution: I put 20 turns of hook-up wire around my coax
> feedline and connected it directly to the antenna (BNC center). That
> worked.
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

2060. Re: Window mount antennas/tinted windows?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 03:25:01 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <usjn7saeqboi16@corp.supernews.com>
Source record: 131749

Dear Jim: A scheme that I have found works is to take a GPS receiver inside of the car. If the signal drops way down near window, you have a problem. One car has a patch of its windshield that is deliberately kept clear so that a GPS antenna may be mounted behind the bare patch.
73 Mac N8TT
--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

"JLB" <jim.bolinger@lintek.aeroflex.com> wrote in message news:8d5ec8a2.0210220442.60ac9c8a@posting.google.com...
> How can I tell if the tint on my car windows is metalic?
>
> I have a 2000 Ford Taurus Wagon, and the side window where I would
> like to mount the antenna has a dark opaque tint around the edges with
> a transparent tint in the center section. If I mount my antenna on
> the transparent part it would be too low, particularly on 440 MHz.
>
> Has anyone out there used a glass mount antenna on a Ford Taurus
> wagon?
>
> Jim
> N8EE

2061. Re: How does a tuner match parallel dipoles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 03:41:42 UTC
From: macve3gro@aol.com
Message-ID: <20021106224142.13581.00003441@mb-mj.aol.com>
Source record: 131750

I've wondered about this too. I've wondered what would happen, if, say, you strung out two dipoles intended for use at 7-Mhz, dipoles connected in parallel but physically at right angles to each other, one dipole longer and resonant around 5 MHz, the other shorter and resonant around 9 Mhz. Could you get a directional effect, that is, swing the radiation pattern by 90 degrees, by changing the settings on an antenna tuner back at the shack? I suppose the only way really to find out is to string out some wire in the back yard and get out some old neon bulbs or florescent tubes and see where the power is going.
Cheers es 73. Harry, VE3GRO, London, Ontario.
Harry MacLean, VE3GRO
500 Riverside Drive, London, ON N6H 2R7
(519) 473-1668

2062. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 03:45:52 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <Qlly9.2292$vZ6.2128990@newshog.newsread.com>
Source record: 131751

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DC91852.95C30741@ieee.org...
> Gilbert Mouget wrote:
> >
> > CAM, <Cecil.A.Moore@ieee.org> says...
> > > I had a 40m 1/4WL vertical with 8 radials at 20 ft. It was a dog
> > > compared to my dipole at 40 ft. It wasn't even worth leaving in
> > > the air as a lightning rod.
> >
> > Was it a dog for local, DX or both ?
>
> I tried and tried but I never heard any signal, day or night, that was
> stronger on the vertical than on the dipole. In addition, the noise level
> on the vertical was two S-units above the dipole's. In my case, it was
> a lot of work for absolutely no reward.

This is contrary to my experience.
I had (some years back) a pair of ground mounted 1/4 wave verticals (half wave spacing) on 40 fed in phase with only 8 radials each. I had one elevated 1/4 wave with the base at 30 feet. The only radials were the three guy lines which were set to 1/4 wave plus 10%. I had a dipole at 40 feet.

The phased verticals never proved satisfactory except in the favored directions and I didn't have phase switching except for going out and actually changing cables. Due to the snow depth being above the bases they weren't the best in the winter either.

The one surprise was in the winter the noise (QRM) when working DX was usually quite a bit lower than on the dipole. The vertical "seemed" to reduce most of the stateside stuff by 1 or 2 S-units and pick up the DX by 1 or 2 S-units. That made the elevated vertical much better for long haul on average. Some times it was better than the dipole and sometimes it wasn't. Now, this could have been due to a quiet location which was well out in the country, but I still give credit to the verticals.

At the current location, I use sloping half wave dipoles which seem to work quite well. I have 2 on 75/80. One to the NE and one to the SW. I have one on 40 oriented to the NW.

If I had room I'd go try the phased verticals again, but elevated this time. One thing to remember is a vertical needs a lot of clear space around it.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)

> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2063. Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 04:12:36 UTC
From: jhisson1@columbus.rr.com
Message-ID: <4c442fa0.0211062012.76fbc00b@posting.google.com>
Source record: 131752

Hi gang,

I have been looking in the back yard for some ideas about putting up a vertical antenna... I will have a tower, so I will have a beam. However, having a vertical may help me out with having a good, all-purpose, go-to omnidirectional antenna.

Here is my idea.... my back yard is about 75' by 50'. I was considering putting up a 5BTV vertical up at about 10 feet. I would buy some rotator cable to put up 4 radials for each band. (I would have to probably bend the 80M radials to make it fit) With it being 10 feet high, that would keep the radials out of the reach of little hands (and me running into it). I would tie off the radials in four corners using the fence (or just have 4 poles in the ground away from the fence) Anybody have a similar arrangement? How has it performed for you?

Also, if I used a vertical dipole instead, (like the Eagle DX) would radials improve the performance of the vertical dipole? I have a friend that is willing to sell me his for about 50% of the new price.

Thanks.... setting up (and planning) antenna systems is a ton of fun!

Jason Hissong
N8XE

2064. FS - Telrex TB6EM TriBand Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 04:28:22 UTC
From: "K.W. Schang" <kschang@wideopenwest.com>
Message-ID: <MPG.1833b5f34e72ab8989683@news-east.giganews.com>
Source record: 131753
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

FS - Two 6 element TB6EM Telrex Triband beams.
One antenna FB. Both 15 meter traps are bad on second antenna, otherwise
second antenna is FB
Have instruction manual. Detroit area.
Ken, W8LU

2065. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 04:30:00 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <9%ly9.5960$w07.1112775@news20.bellglobal.com>
Source record: 131754

"Richard Harrison" originally wrote:
> One power ratioed to another is dimensionless.

...to which "CAM" replied (apparently incorrectly):
> Not if the units are watts and horsepower.

"Richard Harrison" inexplicably replied:
> Touche`!

...

"Richard Harrison"
> I should have said, "the ratio of one power in watts
> to another power in watts produces a simple number
> or fraction devoid of units."

You could also say that, "the ratio of one power in watts to another power in *HORSEPOWER* also produces a simple number or fraction devoid of units."

For example:
1 horsepower / 1 watt = 746 (period - no units - dimensionless)

Obviously when you strike out the "watts/horsepower" units, you need to throw the number 746 into the mix somewhere appropriate to compensate. But the final result is, as you originally said, "dimensionless".

So long as your two values (numerator and denominator) are both for the same physical parameter (like power, or distance, or time, or mass, or anything else that God/Nature invented), the ratio will be, as you say, a simple number or fraction devoid of units. Feel free to use any pair of man-made units you wish (watts/horsepower, miles/km, seconds/weeks, kg/slug, etc.) so long as they measure the same paramter - the final result is still devoid of units and is dimensionless.

The only time you've been wrong is when you thought you were wrong - when you were wrong because you were actually right. The "Touch&#65533;" was actually a miss.

2066. Re: Electronic items on ebay

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 04:53:27 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <8lmy9.6014$w07.1118386@news20.bellglobal.com>
Source record: 131755

OT - amazing coincidence...

"About time" has an auction...
NOS Display tubes
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1784140928

Those Radio Shack Nixie Display Tubes look *exactly* like the set that I donated to a "collector" so many years ago (early-1980s?). This simularity even includes the little plastic box marked "SPRAGUE" in which I kept the ones that I had removed from their original packaging.

Amazing how things go around and around...

2067. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 05:03:32 UTC
From: Bill M <exray@no>
Message-ID: <usjsrskij5t95e@corp.supernews.com>
Source record: 131756

Jason Hissong wrote:
>
> Hi gang,
>
>> Here is my idea.... my back yard is about 75' by 50'. I was
> considering putting up a 5BTV vertical up at about 10 feet. I would
> buy some rotator cable to put up 4 radials for each band. (I would
> have to probably bend the 80M radials to make it fit) With it being
> 10 feet high, that would keep the radials out of the reach of little
> hands (and me running into it). I would tie off the radials in four
> corners using the fence (or just have 4 poles in the ground away from
> the fence) Anybody have a similar arrangement? How has it performed
> for you?

Sounds like a very typical installation. But, just how important is it that the radials be 'tuned' to each band above what would be considered typical lossy ground? I've heard of some different magic lengths in such an application. Comments?
>
> Also, if I used a vertical dipole instead, (like the Eagle DX) would
> radials improve the performance of the vertical dipole? I have a
> friend that is willing to sell me his for about 50% of the new price.

I don't know the particular antenna but if it is a true dipole it shouldn't need radials to perform. That leads to the question....what is the effect of good ground versus lossy ground underneath such a vertical dipole? I don't know how one would physically connect the radials so consider them simply in the field. Since there is "no" radiation off the tip ends of the dipole, theoretically it would be moot, but at a height where the feedpoint is somewhere in that 1/4-1/2 wave window it seems there would be some effect. Seems like it would carem a nice low angle off to a higher angle??? Would "good" ground underneath actually impair this antenna for low angle radiation?

Now that my curiosity is piqued....picture this situation....7 MHz 1/4 wave vertical antenna, 20 feet up with 3-4 radials. Below that set of radials, say 10 feet below, another set of 3-4 radials. Any advantage here by having the second set?

-Bill WX4A/KP4

2068. Re: Slingshots foretting the g5rv wre into the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 05:36:12 UTC
From: Wayne <w>
Message-ID: <usjuucs1uum7bf@corp.supernews.com>
Source record: 131757

A bit late with this, but here's one that works.
I recall a tennis ball cannon, made of several beer/soda cans put together.
Small hole in bottom can.
Insert tennis ball, squirt in a bit of lighter fluid/naptha and light.
'Poof!' goes tennis ball.
A hunk of steel conduit or similar with a cap on one end, and ball that
fits barely snug inside pipe should work similar.
Denatured alcohol might also work as a propellant.
Be sure to keep face and other exposed flesh away from end of barrel/tube
when firing.
A light fishing line should work as starter line.

Note, I assume no responsibility for local laws regarding these things, as
laws vary quite a bit.
I think I like the arrow idea better...

Wayne WA2YNE

"Bill M" <"exray"@no spam-caribe.net> wrote in message
news:unpnrq45ub8c53@corp.supernews.com...
> Brian Kelly wrote:
> >
>
> > I surfed around Google for "potato guns", good Lord, they're a cult. I
> > get the drift, easy enough to build. What do you use for the
> > propellant? Looks like a can of ether engine starter oughta do it.
>
> Most anything in a spray can will work. WD-40 is a favorite.
>
> -Bill

2069. Re: I just ordered a A 99 with gound plane kit

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 06:37:57 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DCA0A45.1D2E68CD@cwis.net>
Source record: 131758

Mark,
Try modeling a vertical extended Zepp antenna. That's
basically what you've done already...
'Doc

2070. Re: Slingshots foretting the g5rv wre into the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 06:40:40 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <5n2ksu0clqf16h4rpqujmcqf24galuns4n@4ax.com>
Source record: 131759

On Wed, 6 Nov 2002 21:36:12 -0800, "Wayne" <w> wrote:

> A bit late with this, but here's one that works.
> I recall a tennis ball cannon, made of several beer/soda cans put together.
> Small hole in bottom can.
> Insert tennis ball, squirt in a bit of lighter fluid/naptha and light.
> 'Poof!' goes tennis ball.
> A hunk of steel conduit or similar with a cap on one end, and ball that
>fits barely snug inside pipe should work similar.
> Denatured alcohol might also work as a propellant.
> Be sure to keep face and other exposed flesh away from end of barrel/tube
>when firing.
> A light fishing line should work as starter line.
>
> Note, I assume no responsibility for local laws regarding these things, as
>laws vary quite a bit.
> I think I like the arrow idea better...
>
> Wayne WA2YNE
>
>"Bill M" <"exray"@no spam-caribe.net> wrote in message
>news:unpnrq45ub8c53@corp.supernews.com...
>> Brian Kelly wrote:
>> >
>>
>> > I surfed around Google for "potato guns", good Lord, they're a cult. I
>> > get the drift, easy enough to build. What do you use for the
>> > propellant? Looks like a can of ether engine starter oughta do it.
>>
>> Most anything in a spray can will work. WD-40 is a favorite.
>>
>> -Bill
>
Benn using a small spearfishing gun in these parts. The bolt is
steel, about 16" long and it's heavy enough to come back down out of
the tree. A guy in our club uses arrows with a drilled golf ball on
the business end. Again, it's heavy enough to come back down.

Russ

2071. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 06:48:45 UTC
From: gcd <gcdNOSPAM@austarmetro.com.au>
Message-ID: <3dca0cc8@news.comindico.com.au>
Source record: 131760

Hi Cecil,
you just answered the question, yes the 50 ohm seen by the generator is due to the multiple reflections of v & I at the discontinuities. so after steady state has established the generator sees an apparent 50 ohm load.

once that steady state occurs (one could argue that that doesnt happen till infinite time as the line is lossless so refelctions continue, but lets be a little practical) the volts at the generator end of the 150 ohm line add up to be 70.71V 0 deg and the current is correspondly 70.71/50 A 0 deg.

the voltage at the 50 ohm on the other end is the same 70.71V and 180 deg relative to the generator end.

an inline power meter (really a voltmeter and again lossless) is manufactured with the assumption that the generator is matched to the line, ie the generator is 150 ohm as well as the coax. thus the meter sees the incident voltage and the reflected voltage. here we do not have that situation, both ends are mismatched. what you are seeing is what the meter has been made to read with the given assumption of one end matched.

and if it was placed inline would it see 133 and 33? or would it see 33 and 33?

Greg

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DC91723.6631C9ED@ieee.org...
> gcd wrote:
> > the problem with the premise that there is 133W in the 150 ohm line is
that
> > you make this conclusion looking only at the load end of the line, ie
using
> > the reflection coeff etc you are assuming that looking into that line is
150
> > ohm. Its not, at the other end is a 50 ohm source, not a 150 ohm source.
>
> Never mind that we can measure 133.33w of forward power and 33.33w of
reflected
> power on a wattmeter calibrated for 150 ohms?
>
> The 50 to 150 ohm impedance discontinuity at the 50 ohm feedline to 150
ohm
> feedline junction has the same magnitude of reflection coefficient as the
150
> ohm feedline to 50 ohm load junction. The 50 ohm virtual impedance match
you

> see looking into the 150 ohm feedline is the *result* of interference
patterns
> set up by reflections and re-reflections of the forward and reflected
waves
> when they encounter the real-world impedance discontinuity at the 50/150
ohm
> junction between the two feedlines. The 50 ohm matched virtual impedance
is the
> *result*, not the cause of anything. Virtual impedances, like this one,
are
> the *result* of the math model we use that make thinking about the
situation
> a little easier. What happens in reality at the impedance discontinuity
can
> best be understood using the principle of superposition (and/or quantum
physics).
>
> Assume the following *general* case of a 50 -> 150 ohm junction of two
feedlines.
> Note that this is a general case as opposed to the special matched case
that we
> have previously been discussing.
>
> Source-------50 ohm feedline----+======150 ohm feedline=======50 ohm load
> Pfwd1---> Pfwd2--->
> <---Pref1 <---Pref2
>
> If Pref1/Pfwd1 is not equal to Pref2/Pfwd2, then wave interference exists.
If
> Pref1/Pfwd1 is less than Pref2/Pfwd2, then there is destructive
interference
> on the source side of the junction with a corresponding constructive
interference
> on the load side of the junction. If Pref1/Pfwd1 is greater than
Pref2/Pfwd2,
> then there is constructive interference on the source side of the junction
with
> a corresponding destructive interference on the load side of the junction.
If
> Pref1/Pfwd1 equals Pref2/Pfwd2, then there is no interference and the
forward
> and reflected waves are orthogonal to each other at the impedance
discontinuity.
>
> The interference patterns cause the virtual impedances. The virtual
impedances
> are the *result* of superposition and are not the cause of anything. Well,
I
> must admit that virtual impedances do cause certain things - many firings
of

> neurons in the human brain and much ado over nothing. :-)
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
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2072. Re: Food for Thought corrections

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 07:40:14 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0211062340.72193502@posting.google.com>
Source record: 131761

Hi Roy,
thanks, all is O.K. now. I downloaded your articles and I'm going to
study them soon.

Ivan OK1SIP

Roy Lewallen <w7el@eznec.com> wrote in message news:<ushoq63n8qjdc@corp.supernews.com>...
> I apologize. The link should be ftp://eznec.com/pub/food_for_thought/.
>
> Roy Lewallen, W7EL
>

2073. Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 10:03:00 UTC
From: Jyrki Tuominen <jyt@pori.tut.fi>
Message-ID: <Pine.GSO.4.05.10211071151150.10433-100000@frodo.pori.tut.fi>
Source record: 131762

Friend of mine had problems with tv channel in upper
portion of UHF region. He is not amateur, but otherwise
very handy with technology. When I visited his house, he
presented UHF rhombic antenna to me. He had found formulass
from some old tech. handbook!! The antenna was constructed
just how it should be, but was not working.

The impedance match was wrong (75 ohms) and feedline
unbalanced, but still it should have performed better.
The size of one diagonal was 5 lambdas, witch should
provide abt. 12 dbd . the gain was lousy and directional
pattern was not sharp. Could that be only due to wrong
impedance match ? Havent ever seen rhombic solutions
in UHF region, usually HF point-to-point and of course
that great rhombuc farm of late W6AM.

2074. Re: How does a tuner match parallel dipoles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 11:35:05 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCA4FE9.C3B08843@ieee.org>
Source record: 131763

Harry MacLean VE3GRO wrote:
> I've wondered about this too. I've wondered what would happen, if, say, you
> strung out two dipoles intended for use at 7-Mhz, dipoles connected in parallel
> but physically at right angles to each other, one dipole longer and resonant
> around 5 MHz, the other shorter and resonant around 9 Mhz.

Wonder no more, Harry. Download the free demo version of EZNEC from
www.eznec.com and find out for yourself.
--
cheers, CAM http://www.qsl.net/w5dxp

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2075. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 11:36:36 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCA5044.48A0ACE4@ieee.org>
Source record: 131764

Roger Halstead wrote:
> This is contrary to my experience.

You obviously don't have Entergy as your power company.
--
cheers, CAM http://www.qsl.net/w5dxp

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2076. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 11:40:45 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCA513D.36A1DFA6@ieee.org>
Source record: 131765

"J. Harvey" wrote:
> For example:
> 1 horsepower / 1 watt = 746 (period - no units - dimensionless)

Hmmmmmmm, the professor who taught my "Dimensional Analysis" class
would disagree with you. He would say the dimensions of that 746
are watts per horsepower.
--
cheers, CAM http://www.qsl.net/w5dxp

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2077. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 11:45:12 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCA5248.96E105F@ieee.org>
Source record: 131766

Bill M wrote:
> Now that my curiosity is piqued....picture this situation....7 MHz 1/4
> wave vertical antenna, 20 feet up with 3-4 radials. Below that set of
> radials, say 10 feet below, another set of 3-4 radials. Any advantage
> here by having the second set?

My 40m vertical was originally ground-mounted with 8 buried radials.
When I raised it by 20ft and installed 8 elevated radials, the 8
buried radials remained and didn't seem to help. Since they were
not connected to the rest of the antenna and were detuned by the
ground, I doubt much current was flowing in them.
--
cheers, CAM http://www.qsl.net/w5dxp

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2078. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 11:57:43 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCA5537.15BBEFC@ieee.org>
Source record: 131767

gcd wrote:
> an inline power meter (really a voltmeter and again lossless) is
> manufactured with the assumption that the generator is matched to the line,

Nope, a Bird wattmeter, for instance, doesn't care what the generator impedance is. All it assumes is that it is operating with a Z0=50 ohms, i.e. that the ratio of Vfor/Ifor is 50 ohms resistive and that the ratio of Vref/Iref is 50 ohms resistive. It samples both the total voltage and total current and uses vector addition to separate out the forward and reflected components.

> ie the generator is 150 ohm as well as the coax. thus the meter sees the
> incident voltage and the reflected voltage. here we do not have that
> situation, both ends are mismatched. what you are seeing is what the meter
> has been made to read with the given assumption of one end matched.

No such assumption is made. There are assumptions made, but that is not one of them.
--
cheers, CAM http://www.qsl.net/w5dxp

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2079. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 12:40:47 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <ibty9.6219$w07.1151663@news20.bellglobal.com>
Source record: 131768

"J. Harvey" wrote:
> For example:
> 1 horsepower / 1 watt = 746 (period - no units - dimensionless)

"CAM"
> Hmmmmmmm, the professor who taught my
> "Dimensional Analysis" class would disagree
> with you.

I don't think so.

> He would say the dimensions of that 746
> are watts per horsepower.

The "watts" and the "horsepower" are on the other side of the equation. The "746" has been inserted into the math so that those units may be cancelled out. 1 horsepower over 1 watt does not directly lead to the answer 746 watts per horsepower.

Taking this topic back to antennas gain, if the two measurements that you are comparing are 1000 dBm and 1 watt (for example), then which of the following is the 'right answer' for the ratio of the two power measurements as might be applied to answer a question about 'gain' ?

a) 1000 dBm per watt
b) 0.001 watt per dBm
c) 1.0
d) 0 dB
e) All of the above

In order to give you time to think, I'll put the answer in another posting.

2080. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 12:58:23 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <Nrty9.6224$w07.1153457@news20.bellglobal.com>
Source record: 131770

"J. Harvey"
> Taking this topic back to antennas gain, if the
> two measurements that you are comparing are
> 1000 dBm and 1 watt (for example), then which
> of the following is the 'right answer' for the ratio
> of the two power measurements as might be
> applied to answer a question about 'gain' ?
>
> a) 1000 dBm per watt
> b) 0.001 watt per dBm
> c) 1.0
> d) 0 dB
> e) All of the above

ANSWER:

Both a) and b) are 'true' statements, but if you supplied them as answers on a test, then your professor would chuckle. They are not the 'right answer' to the question. They are true statements about conversion factors, but that doesn't make them final answers to the question about power ratios.

Both c) and d) are correct answer to the question about the ratio of the two power measurements (1000dBm / 1 watt). You will note that both answers are dimensionless, unitless numbers (dB is not a unit).

e) isn't right either.

I trust that the parallel to the horsepower and watts is clear. I've simply replaced horsepower with dBm for this example to bring it back to antennas and make it more clear.

If someone asks for a ratio of two powers (in whatever units), then they should be expecting a number (unitless) for the answer. If your answer looks more like a conversion factor ("746 watts per horsepower"), then you're not finished yet.

Your professor might give partial credit, once he stopped laughing.

2081. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 13:03:33 UTC
From: Ken Ashcroft <ken@g3msw.demon.co.uk>
Message-ID: <5vuRFjClSmy9Ew4Q@g3msw.demon.co.uk>
Source record: 131789

My Maldol, which is 80 through 10m, is mounted around 8' to avoid heads,
as it has tuned radials. It can be much quieter than my trapped dipole,
and brings the DX in much better.
In article <3DC91852.95C30741@ieee.org>, CAM <Cecil.A.Moore@ieee.org>
writes
>Gilbert Mouget wrote:
>>
>> CAM, <Cecil.A.Moore@ieee.org> says...
>> > I had a 40m 1/4WL vertical with 8 radials at 20 ft. It was a dog
>> > compared to my dipole at 40 ft. It wasn't even worth leaving in
>> > the air as a lightning rod.
>>
>> Was it a dog for local, DX or both ?
>
>I tried and tried but I never heard any signal, day or night, that was
>stronger on the vertical than on the dipole. In addition, the noise level
>on the vertical was two S-units above the dipole's. In my case, it was
>a lot of work for absolutely no reward.

--
Ken Ashcroft

2082. Re: A different antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 13:06:50 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211070506.30369486@posting.google.com>
Source record: 131769

fractenna@aol.com (Fractenna) wrote in message
news:<20021106215053.02951.00001957@mb-dd.aol.com>...
> >
snip
>
> I may be late to the party...but what are you trying to do? That is, what
> problem(s) are you trying o solve?
>
> Freq?
> Gain?
> Form factor?
> Bandwidth?
> Etc?
>
> You are calling up some nice tools to the fray, wondering why they are needed?
>
> Best,
> Chip N1IR

Chip the problem I gave myself was solved many,many years ago.
What I wanted was an antenna that was rotatable,capable of operating
on
any frequency. directive,inexpensive and light, and ofcourse we all
want the extra
gain.This particular antenna is meant to add some niceties to the old
design
with the addition of capacity hats, element longer than the norm,
weather protection for the variable capacitor. (The motor is not
homebrew)
What interests me most of all is the addition of shielding some of the
radiation for pattern purposes. If this operates as I think it will
then I will be adding a similar second element where the element
spacings will change with frequency.
All this should get me thru the winter Hi.
Note the capacity hats are 6 inches radius NOT 6 inches diameter.

I have no intention of dwelling on the 'gain' of this element since
it raises the ire of so many.(gain of a dipole over a dipole over
whatever!)
Regards
Art

2083. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 13:27:47 UTC
From: richardharrison@webtv.net
Message-ID: <25644-3DCA6A53-177@storefull-2314.public.lawson.webtv.net>
Source record: 131771

Greg wrote:
"An inline power meter (really a voltmeter and again lossless) is manufactured with the assumption that the generator is matched to the line."

Generator match to the transmission line is of no significance to the line power measurements in a Bird wattmeter.

Reflection at the generator is ignored by an inline power meter. It becomes part of the incident power.

Reflection from the discontinuity opposite the generator produces reflected power sensed by the meter.

Were the load matched to the line, there would be no reflected power.

Impedance on a mismatched line varies with extent of the mismatch and distance back from the discontinuity. The inline power meter ignores the impedance variations produced by mismatch. the only impedance significant to the meter is Zo. That is because the meter looks only at the power traveling in one direction at a time. The power traveling in one direction sees only Zo in the line.

Consequence and proof of the above is that power can be measured anywhere along the transmission line and indicates the same value except for line loss.

Best regarda, Richard Harrison, KB5WZI

2084. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 13:41:32 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <Lzl01CQM2my9EAP7@ifwtech.co.uk>
Source record: 131772

CAM wrote:
>"J. Harvey" wrote:
>> For example:
>> 1 horsepower / 1 watt = 746 (period - no units - dimensionless)
>
>Hmmmmmmm, the professor who taught my "Dimensional Analysis" class
>would disagree with you. He would say the dimensions of that 746
>are watts per horsepower.

It's unlikely that he did, because watts and HP are both units of the same thing - power, or energy per unit time. Therefore they both have the same dimensions, so when you divide one by the other, all the dimensions on top and bottom of the fraction will cancel, and you're left with a dimensionless pure number - a simple conversion factor.

To explain the difference between units and dimensions...

All everyday units can be reduced to some combination of a few fundamental quantities: mass, length, time, electrical current or charge, and absolute temperature (plus a few others, not relevant here).

The dimensions of any physical quantity show how this is done... where it comes from, if you like.

The units on two sides of an equation (eg 746W equals 1 HP) can be different, but the dimensions *MUST ALWAYS* be the same on both sides - because no two physical quantities can be equated unless they are fundamentally the same.

There are many different units of power: watts, HP (electric, boiler or metric - each slightly different), calories/hour, BTU/sec, joules per lunar month and so on... but they *all* have the same dimensions: energy per unit time. That means the conversion factors between them are always pure numbers.

From mechanics, the fundamental dimensions of energy are (Mass * Length^2 * Time^-2) or M*L^2*T^-2 for short, where ^ means "to the power of". So the dimensions of both watts and HP are M*L^2*T^-3.

Coming back to the original topic, gain is always a pure number, because it's the ratio of something like the power density, divided by the *same* thing produced by a reference antenna. The dimensions on the top and bottom of the fraction cancel, so gain is dimensionless.

You can also convert gain into dB. Decibels are a unit - but a dimensionless one.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

2085. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 14:01:41 UTC
From: richardharrison@webtv.net
Message-ID: <8633-3DCA7245-87@storefull-2315.public.lawson.webtv.net>
Source record: 131773

Bill M wrote:
"Below that set of radials, say 10 feet below, another set of 3-4 radials. Any advantage here by having that second set?"

Some, but that`s not the best use of radials.

Purpose of elevated radials is capture of the essential displacement current between the vertical radiator and its ground return to the radio. Any of this current returning through the earth is likely to produce loss. Elevated radials tend to hide the earth from this displacement current. So, the additional radials would work better up close to the radiator, more capacitance between radiator and radials, less capacitance between radiator and the earth. Also, the placement should be equally interspersed between the existing radials so that balance is maintained to minimize radiation from the radials and so that shielding of the earth from displacement current is more complete. More radials almost never degrade an antenna and often help, especially at low antenna elevations.

Best regards, Richard Harrison, KB5WZI

2086. Re: Electronic items on ebay

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 15:00:19 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211070700.3648aa8c@posting.google.com>
Source record: 131774

"J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote in message
news:<8lmy9.6014$w07.1118386@news20.bellglobal.com>...
> OT - amazing coincidence...
>
> "About time" has an auction...
> NOS Display tubes
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1784140928
>
> Those Radio Shack Nixie Display Tubes look *exactly* like the set that I
> donated to a "collector" so many years ago (early-1980s?). This simularity
> even includes the little plastic box marked "SPRAGUE" in which I kept the
> ones that I had removed from their original packaging.
>
> Amazing how things go around and around...

I too saw an interesting thing on Ebay.It was a very small flat LCD
panel which had a computor derived graph on it.It will not be long
before an enterprising individual will supply a swr meter that
shows the swr around the operating frequency.
Art

2087. Re: How does a tuner match parallel dipoles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 15:01:51 UTC
From: richardharrison@webtv.net
Message-ID: <10587-3DCA805F-65@storefull-2317.public.lawson.webtv.net>
Source record: 131775

Harry, VE3GRO wrote:
"Could you get a directional effect by changing the settings on an antenna tuner back at the shack?"

Follow Cecil`s advice and explore for yourself. But, the short answer is you can affect the directional characteristics of a directional array back at the shack if your controls change the power ratio and phase between elements as broadcasters` controls often do. Ham tuners usually only affect the combined antenna signal and have no effect on directional characteristics of an array.

Best regards, Richard Harrison, KB5WZI

2088. Re: Can't Find Insulators:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 15:25:24 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211070725.5061dd08@posting.google.com>
Source record: 131776

k9sqg@aol.com (K9SQG) wrote in message
news:<20021106194243.00237.00002010@mb-de.aol.com>...
> There are usually several styles always up for auction on Ebay...

Non plastic eggs are available in hardware store, at least out
here in the boonies. They are used extensively for electic
animal fences and are also quite inexpensive.
Art

2089. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 15:35:43 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCA884F.DDD65083@ieee.org>
Source record: 131777

"J. Harvey" wrote:
> 1 horsepower over 1 watt does not directly lead to the answer 746
> watts per horsepower.

The dimensions of that number "745.7" is watts per horsepower. Without
those dimensions, the other dimensions in the equation would not cancel.
How does one convert X horsepower/watts to a dimensionless ratio. Why,
multiply by 745.7 watts/horsepower, of course.
--
cheers, CAM http://www.qsl.net/w5dxp

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2090. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 15:39:19 UTC
From: richardharrison@webtv.net
Message-ID: <17015-3DCA8927-160@storefull-2311.public.lawson.webtv.net>
Source record: 131779

Jyrki wrote:
"The gain was lousy and directional pattern was not sharp."

Environment affects antenna performance. Rhombics, in the clear, 4 or 5 wavelengths on a side, and about twice as long as wide can be great performers at any frequency.

An Australian built Arnold B. Bailey`s rhombic from "TV and Other Receiving Antennas" and posted his satisfaction to this group.

Bailey`s horizontal rhombic antenna:
Size at 200 MHz: Two #10 wires each 36 feet long, separated 18 feet at midpoint, overall length 31 feet.
Transmission line: 300 ohms balanced
Resistance at center frequency: 600 ohms
Antenna average surge impedance: 600 ohms
Termination resistor: 600 ohms
Gain at center frequency: 14.5 db (or less)
Frequency bandwidth: 1 db down, 30%

I`ve erected many horizontal h-f rhombics and never been disappointed.

Best regards, Richard Harrison, KB5WZI

2091. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 15:39:44 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCA8940.311FFACD@ieee.org>
Source record: 131778

"J. Harvey" wrote:
> If someone asks for a ratio of two powers (in whatever units), then they
> should be expecting a number (unitless) for the answer. If your answer
> looks more like a conversion factor ("746 watts per horsepower"), then
> you're not finished yet.

My point exactly! You cannot arrive at a dimensionless ratio involving
horsepower/watts unless you use the *dimensioned* conversion factor.
Thanks for proving that the conversion factor has the dimensions
of watts/horsepower.
--
cheers, CAM http://www.qsl.net/w5dxp

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2092. Re: Slingshots foretting the g5rv wre into the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 15:57:54 UTC
From: walt <walt_radiators@aol.com>
Message-ID: <3DCA8D80.10117D5E@aol.com>
Source record: 131780

here is a nice setup that you can duplicate for under $ 20 from Walmart
sporting goods dept. (or sell them yourself !)

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1392668336&rd=1

walt

Wayne wrote:

> A bit late with this, but here's one that works.
> I recall a tennis ball cannon, made of several beer/soda cans put together.
> Small hole in bottom can.
> Insert tennis ball, squirt in a bit of lighter fluid/naptha and light.
> 'Poof!' goes tennis ball.
> A hunk of steel conduit or similar with a cap on one end, and ball that
> fits barely snug inside pipe should work similar.
> Denatured alcohol might also work as a propellant.
> Be sure to keep face and other exposed flesh away from end of barrel/tube
> when firing.
> A light fishing line should work as starter line.
>
> Note, I assume no responsibility for local laws regarding these things, as
> laws vary quite a bit.
> I think I like the arrow idea better...
>
> Wayne WA2YNE
>
> "Bill M" <"exray"@no spam-caribe.net> wrote in message
> news:unpnrq45ub8c53@corp.supernews.com...
> > Brian Kelly wrote:
> > >
> >
> > > I surfed around Google for "potato guns", good Lord, they're a cult. I
> > > get the drift, easy enough to build. What do you use for the
> > > propellant? Looks like a can of ether engine starter oughta do it.
> >
> > Most anything in a spray can will work. WD-40 is a favorite.
> >
> > -Bill

2093. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 16:11:18 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <3t2lsu4c7hm8eh98hpj0m20q1i1puhq716@4ax.com>
Source record: 131781

On Thu, 7 Nov 2002 12:03:00 +0200, Jyrki Tuominen <jyt@pori.tut.fi>
wrote:

|Friend of mine had problems with tv channel in upper
|portion of UHF region. He is not amateur, but otherwise
|very handy with technology. When I visited his house, he
|presented UHF rhombic antenna to me. He had found formulass
|from some old tech. handbook!! The antenna was constructed
|just how it should be, but was not working.
|
|The impedance match was wrong (75 ohms) and feedline
|unbalanced, but still it should have performed better.
|The size of one diagonal was 5 lambdas, witch should
|provide abt. 12 dbd . the gain was lousy and directional
|pattern was not sharp. Could that be only due to wrong
|impedance match ? Havent ever seen rhombic solutions
|in UHF region, usually HF point-to-point and of course
|that great rhombuc farm of late W6AM.

The transmission line mismatch and unbalance are negative factors,
especially the unbalance. However, the rhombic is in my opinion a
very poor antenna particularly from the standpoint of minor lobes.
The Laport rhombic purported to improve the minor lobe problem by
using multiple rhombics in echelon.

I have modeled some of these using information from his original paper
and have not yet found the results to be particularly favorable.

Antennas for the upper UHF channels are difficult. Hams have used
Yagis, particularly loop Yagis as high as 1.2 GHz. These might be an
answer for your friend. One method of loop construction has the
advantage of a built-in balun, which he should use regardless of what
kind of antenna he uses.

Another option would be a dipole + trough reflector.

Wes
|
|

2094. Which technology in our mobile ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 16:23:16 UTC
From: b.larcheveque@free.fr
Message-ID: <20c7a271.0211070823.7e6829c8@posting.google.com>
Source record: 131783

Hey everybody,
I'm student in Msc and I'm trying to produce a survey about the
different kind of internal antenna and makes of phone which use them;
I already found information about the different type of antenna (like
pifa, microstrip or mla) but i still ignore which constructor (like
nokia, motorola or ericsson) uses which technology ... if you know
where I could find this type of information it would be helpfull for
me.

thank you,

--
Benjamin LARCHEVEQUE
benjamin.larcheveque@students.plymouth.ac.uk
b.larcheveque@free.fr

2095. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 16:29:06 UTC
From: richardharrison@webtv.net
Message-ID: <10586-3DCA94D2-180@storefull-2317.public.lawson.webtv.net>
Source record: 131784

Ian, G3SEK eloquently wrote:
"The dimensions of any physical quantity show how this this is all done..."

To some, we must appear as the blind Indians describing an elephant.

Inches and centimeters may be chosen as units of length (the standard, I believe, is a precise meter bar guarded somewhere in Paris).

If we choose inches and centimeters as umits of measurement, yards and meters become dimensions because a dimension is a synonym for size.

A measure of 36 inches is one yard. A measure of 100 centimeters (units) is one meter, a dimension.

Best regards, Richard Harrison, KB5WZI

2096. Questions on Wire Antennas-Advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 16:58:17 UTC
From: kg6zi@yahoo.com
Message-ID: <3f36625c.0211070858.37b18e24@posting.google.com>
Source record: 131785

Good Morning,

Now, between questions and opinions, there has to be something in this one for everyone :)

I've just about finalized my ideas for the two wire antennas I will put up hopefully before the end of the year (unless the rainy season comes early). Before I start scrounging up materials and lining up help for the TV mast party, I thought I'd briefly describe what I want to do and solicit your comments and opinions. I have a specific question or two about one of the antennas that involves a choice in placement, so hopefully I can get a good answer or two on that.

The first one, whose configuration is pretty much set, is a tilted delta loop of about 350 feet of 12 AWG in roughly an equilateral shape with the point up. It will be fed from a lower corner with open wire line to a air core choke balun, then into the shack through an SPC type of transmatch. The apex will be about 65-70 feet high with the base between 10 and 15 feet above the ground. It will be oriented broadside N/S. Its support by the way is a 50 foot TV mast on the roof, with non-metallic guys except on the lowest ring. I had excellent results with a very similar antenna about 2/3'rds this size, but with the base even lower...about 6-8 feel in that case..so I'm hopeful about his one. I would enjoy any and all comments, suggestions and discussion on this one

The second one has a choice to be made before I finalize its configuration. In any case, it will be a simple dipole, 12 AWG, center fed with open wire line through a coaxial choke balun to the shack and an SPC design transmatch. It will also be oriented broadside N/S (no real choice on either orientation).

Option A has a length of about 100 feet and both ends at about 50 feet above the ground, i.e. essentially a level flat top.

Option B has a length of between 125 and 130 feet, one end at the same 50 feet, but the eastern end will be about 15' above the ground..i.e. a sloper.

I'd be particularly interested in how the two options might compare on the lower bands (80/40). On one hand I can have the height for the whole length, but only 100 feet long, the other has more length but a lot closer to the ground on one end. Comments?

Thanks for your time. Please feel free to email direct.

Dennis

2097. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 17:11:05 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <F8xy9.9972$3e2.1381771@news20.bellglobal.com>
Source record: 131786

"CAM"
> Thanks for proving that the conversion factor has the
> dimensions of watts/horsepower.

Cecil, you're as slippery character as I've ever seen.

Richard wasn't looking for a conversion factor ! He was looking for a ratio of power measurements. The conversion factor helps you to cancel out the units leaving a dimensionless number - in this case the answer bears a striking resemblance to "746" ONLY (!!!!!!!) because the input data was selected as 1hp in the example.

If we had selected 2 hp for the example then the correct answer would be 1492 (a dimensionless number). That would make your answer of "746 watts per hp" even more obviously wrong (for those that need it to be more obvious).

Review my previous posting - try answering the quiz.

If required, I can develop an even more clear example (using antennas and watts and hp) that will make it even more clear that you were (and are) wrong in the original thread that I won't bother to repeat again. It shouldn't require it, but I'm willing to go further if required.

2098. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 17:12:39 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <baxy9.4408$z5.3261737@newssvr28.news.prodigy.com>
Source record: 131782

A guy I worked with 25 years ago was an avid TV dx'er and lived in the
boonies where signals were very weak. He had several rhombics for different
directions and had great success with them.
--
73,
Larry N8LP

www.telepostinc.con/n8lp.html
"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:17015-3DCA8927-160@storefull-2311.public.lawson.webtv.net...
> Jyrki wrote:
> "The gain was lousy and directional pattern was not sharp."
>
> Environment affects antenna performance. Rhombics, in the clear, 4 or 5
> wavelengths on a side, and about twice as long as wide can be great
> performers at any frequency.
>
> An Australian built Arnold B. Bailey`s rhombic from "TV and Other
> Receiving Antennas" and posted his satisfaction to this group.
>
> Bailey`s horizontal rhombic antenna:
> Size at 200 MHz: Two #10 wires each 36 feet long, separated 18 feet at
> midpoint, overall length 31 feet.
> Transmission line: 300 ohms balanced
> Resistance at center frequency: 600 ohms
> Antenna average surge impedance: 600 ohms
> Termination resistor: 600 ohms
> Gain at center frequency: 14.5 db (or less)
> Frequency bandwidth: 1 db down, 30%
>
> I`ve erected many horizontal h-f rhombics and never been disappointed.
>
> Best regards, Richard Harrison, KB5WZI
>

2099. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 17:15:38 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <Xcxy9.9983$3e2.1382154@news20.bellglobal.com>
Source record: 131787

"CAM"
> The dimensions of that number "745.7" is watts per horsepower.

Sigh...

If 746 is a conversion factor, then yes - you're correct. It has some dimensions after it.

BUT - if it just happens that the example used ONE (!!!!) hp, then it shouldn't come as any surprise that the nmerical answer (746 to round it off) happens to look like the same number as the conversion factor.

But the answer to a ratio of powers question (like Richard's) is a dimensionless number.

Try again with 2hp and see how your argument stinks.

2100. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 17:19:04 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <8gxy9.9993$3e2.1382648@news20.bellglobal.com>
Source record: 131788

"Richard Harrison"
> (the standard, I believe, is a precise meter bar guarded
> somewhere in Paris).

The bar is probably still there, but the 1m standard is now based on a certain number of wavelength of a certain transistion (unless they've changed it again). One inch now equals 2.54 cm (exactly - it changed from a number with more decimal points - something like 2.5400009???).

2101. Re: Slingshots foretting the g5rv wre into the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 18:01:03 UTC
From: jder8745@aol.com
Message-ID: <20021107130103.00168.00003201@mb-fs.aol.com>
Source record: 131790

For what it's worth,

I use a cheap rod and reel to send a 3/4-oz weight up and pull a stronger nylon cord and attach it to the insulator...and you know the rest...

73 de Jack, K9CUN

2102. Re: Slingshots foretting the g5rv wre into the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 18:02:38 UTC
From: jder8745@aol.com
Message-ID: <20021107130238.00168.00003202@mb-fs.aol.com>
Source record: 131791

Howdy,

Auqanet hair spray in the purple can is the standard propellant

Jack

2103. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 18:06:21 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCAAB9D.81BC35A2@ieee.org>
Source record: 131792

"J. Harvey" wrote:
> If required, I can develop an even more clear example (using antennas and
> watts and hp) that will make it even more clear that you were (and are)
> wrong in the original thread that I won't bother to repeat again.

I'm wrong when I say that conversion factors are not dimensionless?
That's the only thing I have said.

If I tell you that my 10 horsepower motor will result in 5kW out
of the associated generator, and ask you for the efficiency of the
system, you are telling me that the efficiency of the system, a
dimensionless number, is 5kW/10 Hp = 0.5k, a dimensionless number???
It is NOT a dimensionless number and neither is the conversion
factor that will eventually turn it into a dimensionless number.
If you haven't canceled the dimensions, it is NOT a dimensionless
number. If two powers are provided in different dimensions, their
raw ratio is NEVER dimensionless.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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2104. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 18:08:35 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCAAC23.7258E2B1@ieee.org>
Source record: 131793

"J. Harvey" wrote:
> Try again with 2hp and see how your argument stinks.

Try calculating efficiency with two powers given in different
dimensions (without a dimensioned conversion factor) and see
how your argument stinks.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2105. Re: I just ordered a A 99 with gound plane kit

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 18:39:32 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211071039.22ca0324@posting.google.com>
Source record: 131794

'Doc <w5lz@cwis.net> wrote in message news:<3DCA0A45.1D2E68CD@cwis.net>...
> Mark,
> Try modeling a vertical extended Zepp antenna. That's
> basically what you've done already...
> 'Doc

Sure, but try supporting the 42 ft tall vertical double extended zepp
all in one piece. Not going to be easy. The ground plane version lets
you use radials instead of the solid bottom 5/8 section. The gain on a
"pure" dual 5/8 antenna is slightly better than the ground plane
version. But the ground plane version is much easier to deal with. MK

2106. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 19:55:37 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <u1glsusjlpja55pospq0pkp6rm8j9de5lt@4ax.com>
Source record: 131795

On Thu, 7 Nov 2002 09:39:19 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

|Jyrki wrote:
|"The gain was lousy and directional pattern was not sharp."
|
|Environment affects antenna performance. Rhombics, in the clear, 4 or 5
|wavelengths on a side, and about twice as long as wide can be great
|performers at any frequency.
|
|An Australian built Arnold B. Bailey`s rhombic from "TV and Other
|Receiving Antennas" and posted his satisfaction to this group.
|
|Bailey`s horizontal rhombic antenna:
|Size at 200 MHz: Two #10 wires each 36 feet long, separated 18 feet at
|midpoint, overall length 31 feet.
|Transmission line: 300 ohms balanced
|Resistance at center frequency: 600 ohms
|Antenna average surge impedance: 600 ohms
|Termination resistor: 600 ohms
|Gain at center frequency: 14.5 db (or less)
|Frequency bandwidth: 1 db down, 30%

I just modeled this using Eznec. It isn't specified how high above
ground this is so here are the free-space numbers at 200 MHz.

Gain: 12.8 dBi
Front to sidelobe ratio: 8.45 dB.
Feedpoint Z: 630 +j 14

Within the claimed BW of 30%, the first sidelobe is down only 6 dB at
230 MHz.

If you live in a location such as mine where multipath is really bad,
this would not be usable.

2107. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 20:12:30 UTC
From: fractenna@aol.com
Message-ID: <20021107151230.12404.00000305@mb-fo.aol.com>
Source record: 131796

>I wrote:
>"One power ratioed to another is dimensionless."
>
>The French may have a better word for this, but we don`t need to be
>corrected by Gilbert Mouget on this statement.
>
>Dimensionless means without size.
>
>Does the fraction 2/3 define a size? Not until the units are specified.
>Like fractals, we can have any number of "self-similar" figures of no
>particular size..
>
>Best regards, Richard Harrison, KB5WZI
>

Units of dimension are well-defined. A unitless quantity has no dimension.

Gain has no dimensionality. It is a number. That's all it is.

73,
Chip N1IR

2108. Re: Can a ham get busted for.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 20:34:37 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DCACE5D.52313486@cwis.net>
Source record: 131797

nospam,
Yes.
'Doc

2109. Re: Questions on Wire Antennas-Advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 20:39:36 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DCACF88.CBFE4322@cwis.net>
Source record: 131798

Dennis,
Sounds like you will have two 'half-way' decent
antennas for 80 meters. Neither will be too good
on 40 meters.
As to the doublet, I think either option will
work.
'Doc

2110. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 20:48:48 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <$8qJGRAwGty9EA5Z@ifwtech.co.uk>
Source record: 131799

CAM wrote:
> If two powers are provided in different dimensions, their raw ratio is
>NEVER dimensionless.

Sorry, CAM, but your recollections of "units" and "dimensions" are cross-wired.

It is logically impossible to quote quantities of power in any different dimensions than (M*L^2*T^-3) - because that set of dimensions belongs uniquely to power.

There are many possible sets of units for power, but they *must* all analyse down to that same basic set of dimensions - or else they'd be units of something else.

Therefore if two power levels are provided in different units, their raw ratio is *always* dimensionless - a simple number, a conversion factor.

The value of that factor depends on the pair of different units that it converts between. You can call it "watts per horsepower" to remind you which units are involved, but both watts and horsepower share the same set of dimensions, so their ratio is still just a number - dimensionless by definition.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

2111. Re: Can a ham get busted for.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 21:09:23 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <aqekq30u5@enews1.newsguy.com>
Source record: 131800

by the letter of the law, yes. your ham radio is not type accepted for that service since it falls under a different section of the fcc rules. as a practical matter the fcc doesn't have the manpower to even run down the web sites who openly advertise 30kw mobile amps for cb and the truckers who infest 28085 and 28535 daily.

"nospam" <xxxmmxxx@xxxspiritone.com> wrote in message news:3DCABF92.91F0DB2A@xxxspiritone.com...
> using a modified ham radio (with power cut back to 5 watts)
> on CB?
>

2112. Re: Can a ham get busted for.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 22:56:16 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <3DCAEF90.3030800@core.com>
Source record: 131801

yes. beleive it or not CB radios must be TYPE ACCEPTED. ham radios are
not. they must meet certin requirements if commercially made but are not
type accpeted. also CB radios must not be controled by a VFO. or VFO
type tuner.
Dave wd9bdz

nospam wrote:

>using a modified ham radio (with power cut back to 5 watts)
>on CB?
>
>
>

2113. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 22:56:29 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <vcCy9.6800$w07.1238254@news20.bellglobal.com>
Source record: 131802

"CAM"
> I'm wrong when I say that conversion factors are not
> dimensionless? That's the only thing I have said.

Not true, here's the originnal exchange verbatim:
"Richard Harrison" originally wrote:
> One power ratioed to another is dimensionless.
...to which "CAM" replied (incorrectly):
> Not if the units are watts and horsepower.

> If two powers are provided in different dimensions,
> their raw ratio is NEVER dimensionless.

Richard's original statement didn't say "raw ratio". You just made up that
new term, a common technique for unfair debating.

2114. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 22:56:46 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <McCy9.6801$w07.1238513@news20.bellglobal.com>
Source record: 131803

"CAM"
> Try calculating efficiency with two powers given in
> different dimensions (without a dimensioned
> conversion factor) and see how your argument stinks.

That's stupid. Show me exactly where (quote me if you please) I agreed to your bracketed phrase "(without a dimensioned conversion factor)" - key word being "without". Duh.

Richard's original statement about the ratio of two powers being dimensionless was, and always will be, correct. Your attempted correction was wrong. So was Richard's unnecessary "Toch".

Any necessary conversion factors along the way DO NOT change the fact that the final answer will be a ratio and will be dimensionless.

You're being fairly consistent in trying to ignore my proofs along the way. Why don't you answer the quiz that I previously presented ? Oh, I see, because then you would have to admit that you were wrong.

2115. Re: Gain and efficiency

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 23:26:06 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <8ttlsu8i8gn9tokrk91n2s70r2t49vdbu0@4ax.com>
Source record: 131804

On Fri, 01 Nov 2002 20:19:57 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

> For both Art and the eh/cfa/fractal crowd, an answer is an
>end - better to keep everyone guessing - or demanding they prove him
>wrong which again requires that same question answered... see a
>pattern?
>
>73's
>Richard Clark, KB7QHC

Art is channeling Phil?

2116. Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 23:51:51 UTC
From: Gordon Couger <gcouger@NOSPAMprovalue.net>
Message-ID: <w_Cy9.17$P71.15793@newsfeed.slurp.net>
Source record: 131805

I have been away form the group a long time.

Hamfests sales at flea markets being what they are, lousy I want to keep going but it pays better to buy at ham fests and sell on ebay. I want to have something to sell at the ham fests and well made reasonably priced antennas seem to do reasonably well for me in the past.

I have 3 antenna designs that work and have been range tested side by side with commercial products using corn field ranges and they pass a reality check and I need to know what patristic to use for the center insulator in dipoles (low voltage, high current) and traps where the voltage and loss are more critical. UV and weathering are also an important consideration.

I can get all the facts from table, but in a real world compromise what have others found to be the best solution for them. Electrically styrene is of course the best but practically it useless. Price wise PVC is great but UV eats it up. I expect Nylon or one Teflon or on of the others is the all around best solution

Thanks for your help

73
GordonW5RED

Gordon Couger
Stillwater, OK
www.couger.com/gcouger

2117. Re: ??Constructing an external antenna for cell phone??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-07 23:53:19 UTC
From: Mark <mhopkins@iei.net>
Message-ID: <8rulsu0n7q5v54j23jgn6lj7sg4b2tu0ou@4ax.com>
Source record: 131807
Cross-posted to: alt.cellular.motorola,alt.cellular.tech,alt.cellular.verizon,rec.radio.amateur.antenna,rec.radio.shortwave

Thanks! You are obviously waaay ahead of me on this. I found a program
that helps a person build a yagi of proper dimensions according to
wavelength and number of elements desired. I already built the
ground-plane antenna, so I think I'll make a little yagi and
experiment with both next time I go camping (something to break up the
beer-drinking). I'll just buy the adapter as has been suggested.

Mark

On Tue, 05 Nov 2002 05:26:44 GMT, noone@home.com (That Larry) wrote:

>On Mon, 04 Nov 2002 19:02:07 -0500, Mark <mhopkins@iei.net> wrote:
>
>>I found this "pin out" diagram for my phone:
>>---
>>Motorola StarTAC butt plug Pin-Out diagram
>>
>>I assume *NO* responsibility
>>1) GND Connected with 22pf to pin 3
>>2) RF out
>>3) GND Connected with 33 pf to pin 8, 33 pf to pin 1, 33 pf to pin 7
>>4) BAT_FDBAK
>>5) MAN_TEST connected with 10k to L275
>>6) RS232_TX - connected to MCU SPI bus
>>7) RS232_RX - connected to MCU SPI bus
>>8) AUDIO_IN
>>9) AUDIO_OUT
>>10) GNDA (Ground reference) Connected with 33 pf to pin 13, 33 pf to
>>pin 14
>>11) UPLINK -|
>>12) DOWNLINK -|- DSC bus connected to the BIC
>>13) DSC_EN_B -|
>>14) EXT_B+
>>15) GND
>>---
>>But I don't understand where to solder the coax shield?? Do I just
>>connect it to the ground?? For that matter, why can't I just unscrew
>>my cell phone's antenna and stuff the coax into the phone in its place
>>(crude I know)?!?!
>
>Shield to pin 1 is fine.....
>
>The cellphone antenna ISN'T a 50 ohm port. If you disassemble an old
>phone, you'll see the antenna port is actually a little "coil", a

>helical loading coil that couples from the high impedance point on the
>open end of the helix to the high impedance of the end-fed whip. So,
>there is no way to connect a coax. The pin hole for the helix coil is
>the RF output and is probably about the right impedance, but not
>necessarily. Lots of tuning is done to try to make the crappy
>cellphone antennas actually radiate "something" to the cells.
>
>>
>> I was also wondering about the antennas for cordless phones; I know
>>it's against the rules to add an external antenna to my 2.4 GHz phone
>>base but, (rhetorically speaking) how would you ground the coax shield
>>on a phone with just a "metal stick" for an antenna (if you were going
>>to -which of course I am not)?
>
>On the 2.4 Ghz WiFi band, we're having great success building beam
>antennas out of Pringle's Chip cans. See:
>http://www.turnpoint.net/wireless/has.html
>http://www.d128.com/wireless/
>http://www.oreillynet.com/cs/weblog/view/wlg/448
>
>If you look up inside the Pringles can on:
>http://www.oreillynet.com/~rob/pringles/element.jpg
>you'll see your 2.4 Ghz antenna. The distance to the "reflector", the
>can bottom is critical, by the way. The measurements are at the
>webpage.
>
>Of course, in WiFi, we're interested in BEAM antennas to the local
>hotspot, in Egypt's case a broadband cafe.....
>
>As far as phone range is concerned, at this high frequency, your best
>bet is to put a remote antenna fed with coax out of your mind and put
>the base unit as high up as you can get it. I know where there is one
>inside an inverted plastic pail 50' up a tower fed with AC power and a
>telephone line that works VERY well. The pail keeps the rain out and
>is transparent to the RF. A second "base unit" not hooked up to
>anything and only used as a handset charger let's the phone's
>batteries charged...er, ah, without climbing the tower to put the
>handset in the pail...(c; Range is about a mile or so....depending on
>how many OTHER people have similar phones on the frequencies. This
>one is in the country in the middle of a farm. The 2.4 Ghz phone
>works in the cab of the tractors anywhere on the large property this
>way....(c; To call the tractor from the house, simply dial the
>callback number and hang up briefly to make the phone in the tractor
>ring. Then both parties pick up, party line style, and are simply
>hooked to a null circuit providing DC to power the phonelines by the
>phone company...it's a test number. Works great from 50' up!
>>
>>The background for my project:
>>A bunch of my buddies and I go camping in rural Southwest Indiana at a
>>friend's "weekend property". Nobody can get cell reception there, but

>>2 miles down the road everything is fine. So, I bought me an antenna
>>book and have constructed a small ground-plane antenna for 800 MHz
>>(Verizon) use, and I am going to stick in a big-old tree out there in
>>the woods to see if we can get reception (when we want it).
>
>AS this is more or less a fixed location, why don't we get a BEAM
>antenna to put up the tree and point MORE power to the cell site while
>increasing the listening gain, too!
>
>Look at the beams on:
>http://cellantenna.com/Antennas/yagi.htm
>I'm very successfully using 10 element Decibel Product point-to-point
>paging yagis from remote beach houses on remote islands to point the
>power from 3W analog bagphones running off a 12V power supply back to
>Charleston about 30 miles....while rejecting the connection attempts
>from an interfering roaming system in Savannah, GA. Set the bagphone
>on HOME ONLY and it locks onto Charleston, perfectly, even in heavy
>rain attenuation. These phones have been running for years like
>this....providing LOCAL telephone service back into city phones from
>an area covered by a bogus little POTS company where EVERYplace is
>long distance....and expensive.
>
>A beam antenna up that tree, fed with 25-30' of a good quality RG-58/U
>coax with some nice mini-UHF connectors will work fine.....IF the
>phone has an RF connector on it....
>
>
>Larry
>
>Ok, who's the smartass that beamed down this
>nekkid nurse?! Kirk OUT!

2118. Re: Can a ham get busted for.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 00:01:06 UTC
From: W6DKN <w6dkn-nospam-@qsl.net>
Message-ID: <c2Dy9.21915$46.7436@fe01>
Source record: 131806

"nospam" <xxxmmxxx@xxxspiritone.com> wrote in message
news:3DCABF92.91F0DB2A@xxxspiritone.com...
> using a modified ham radio (with power cut back to 5 watts)
> on CB?
>

Yes.

2119. Dual frequency microstrip antenna-Help!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 01:06:06 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0211071706.5849fd84@posting.google.com>
Source record: 131808

Hi there,
I need to develop a dual frequency microstrip for WLAN
working at 2.4GHz and 5.78GHz. I tried to excite along its length and
width. Its working but i need same polarization Can u guys help me in
this. Can you suggest anyother way of doing it.

2120. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 01:10:25 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <3DCB0F01.D646A0F6@uci.edu>
Source record: 131809

CAM wrote:

> My 40m vertical was originally ground-mounted with 8 buried radials.
> When I raised it by 20ft and installed 8 elevated radials, the 8
> buried radials remained and didn't seem to help. Since they were
> not connected to the rest of the antenna and were detuned by the
> ground, I doubt much current was flowing in them.
> --
> cheers, CAM http://www.qsl.net/w5dxp

How does one know if an open circuit has been detuned?

2121. Re: ??Constructing an external antenna for cell phone??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 02:15:13 UTC
From: noone@home.com
Message-ID: <3dcb1dcd.86018345@64.154.60.171>
Source record: 131810
Cross-posted to: alt.cellular.motorola,alt.cellular.tech,alt.cellular.verizon,rec.radio.amateur.antenna,rec.radio.shortwave

Make the Pringle can beam antenna. Great fun on 802.11b networks.

Not everyone has a Pringle can with coax coming out of it, you
know.....great fun on any street, in any park....(c;

Larry)(SSID 3

Larry

Very funny, Scotty! Now,
BEAM ME MY CLOTHES!!

2122. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 02:23:13 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCB2011.86724B7@ieee.org>
Source record: 131811

"Ian White, G3SEK" wrote:
> The value of that factor depends on the pair of different units that it
> converts between. You can call it "watts per horsepower" to remind you
> which units are involved, but both watts and horsepower share the same
> set of dimensions, so their ratio is still just a number - dimensionless
> by definition.

Egads, you mean everything in my graduate course textbook on dimensional
analysis is wrong?
--
cheers, CAM http://www.qsl.net/w5dxp

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2123. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 02:26:08 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCB20C0.CE7E880@ieee.org>
Source record: 131812

"J. Harvey" wrote:
> Richard's original statement didn't say "raw ratio". You just made up that
> new term, a common technique for unfair debating.

It was a joke to get back at Richard for his Aggie joke. If I send
you a couple of bucks, do you think you might buy a sense of humor?
--
cheers, CAM http://www.qsl.net/w5dxp

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2124. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 02:28:19 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCB2143.83BB8E01@ieee.org>
Source record: 131813

"J. Harvey" wrote:
> Richard's original statement about the ratio of two powers being
> dimensionless was, and always will be, correct. Your attempted correction
> was wrong. So was Richard's unnecessary "Tochï¿½".

My attempt at humor was wrong????? Since when did God die and make
you the humor police?
--
cheers, CAM http://www.qsl.net/w5dxp

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2125. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 02:29:30 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <akFy9.6999$w07.1302565@news20.bellglobal.com>
Source record: 131815

"CAM"
> If I send you a couple of bucks,
> do you think you might buy a
> sense of humor?

US or Canadian bucks ?

:-)

2126. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 02:30:28 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCB21C4.37E49B55@ieee.org>
Source record: 131814

Jim Kelley wrote:
>
> CAM wrote:
>
> > My 40m vertical was originally ground-mounted with 8 buried radials.
> > When I raised it by 20ft and installed 8 elevated radials, the 8
> > buried radials remained and didn't seem to help. Since they were
> > not connected to the rest of the antenna and were detuned by the
> > ground, I doubt much current was flowing in them.
>
> How does one know if an open circuit has been detuned?

If a 1/2WL wire has been buried in the ground.
--
cheers, CAM http://www.qsl.net/w5dxp

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-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2127. Re: Can a ham get busted for.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 02:39:27 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <ztFy9.647212$vq2.3915540@news1.east.cox.net>
Source record: 131816

The FCC is pretty lax on enforcement, especially for someone running "legal" power on the CB band with ham equipment. You'd have to do something pretty outrageous to get their attention, and then at worst you'd probably receive several desist orders before sterner action is taken. One caveat -- if you have any FCC license, you can expect to forfiet it if you're caught.

"nospam" <xxxmmxxx@xxxspiritone.com> wrote in message news:3DCABF92.91F0DB2A@xxxspiritone.com...
> using a modified ham radio (with power cut back to 5 watts)
> on CB?
>

2128. Re: Can a ham get busted for.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 02:56:47 UTC
From: n2ey@aol.com
Message-ID: <20021107215647.27509.00000211@mb-cb.aol.com>
Source record: 131817

In article <aqekq30u5@enews1.newsguy.com>, "David Robbins" <k1ttt@arrl.net>
writes:

>by the letter of the law, yes. your ham radio is not type accepted for that
>service since it falls under a different section of the fcc rules.

Agreed.

>as a
>practical matter the fcc doesn't have the manpower to even run down the web
>sites who openly advertise 30kw mobile amps for cb and the truckers who
>infest 28085 and 28535 daily.

FCC has done some enforcement in recent years, but there's a lot more to be
done. FCC is complaint-driven - if someone complains, and hands the FCC usable
evidence and information (like audio tapes and exact date/time/frequency
reports) they will try to enforce the rules.

One BIG difference about a ham vs. the general public is that the ham is FCC
licensed, and is supposed to know about the rules. When you and I applied for
our licenses (new or renewed), we agreed to abide by ALL FCC rules as a
condition of the license. So FCC has a leg up on enforcement, compared to
unlicensed persons.

Same things go for use of, say, modded VHF/UHF rigs on FRS/GMRS, MURS or the
various public safety services.

73 de Jim, N2EY

2129. antenna efficiency ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 02:57:56 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <usma1nnh6lr7b4@corp.supernews.com>
Source record: 131818

I would like to ask the following questions? Assume that you have a mobile with an 8 foot vertical whip with a high Q loading coil near the center that is resonant at 3.9 mHz. Then with a tuner near the antenna you tune for max power. Later you replace the loaded whip with an 8 foot section that has no coil, just a whip. Which one will have the best efficiency and why? Later we QSY to 3.8 mHz and do the same, same question.
tnx
hank wd5jfr
"there are no stupid questions, just stupid lpeople asking so they won't be stupid"

2130. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 03:02:10 UTC
From: k1bqt@aol.com
Message-ID: <20021107220210.19758.00000002@mb-df.aol.com>
Source record: 131669

Hi Gordon--

Black Delrin works well for RF insulators as long as you don't need to glue anything to it. Black ABS isn't quite as good, but will take glue better.

73

Rick K1BQT

2131. Re: Dual frequency microstrip antenna-Help!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 03:37:29 UTC
From: fractenna@aol.com
Message-ID: <20021107223729.26862.00001949@mb-cq.aol.com>
Source record: 131671

>Hi there,
> I need to develop a dual frequency microstrip for WLAN
>working at 2.4GHz and 5.78GHz. I tried to excite along its length and
>width. Its working but i need same polarization Can u guys help me in
>this. Can you suggest anyother way of doing it.
>
>
>
>
>
>

Can't you just buy this?

If not, may I submit that having someone provide an answer is a poor way to get a conceptual sense of antenna design.

Think about how those OTHER guys came up with those ideas...

Hint:

Think CURRENTS.

Think LOSS TANGENTS.

Think GEOMETRY.

73,
Chip N1IR

2132. Re: A Source for Large (i.e., Long) Telescopic Whip Elements?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 03:45:51 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <BTLLPXTHpu1W5PgE=037XnvW8cCp@4ax.com>
Source record: 131672

Will White <googlyelmo@earthlink.net> wrote:

>I am in search of long telescopic whip antenna elements for a portable
>loaded HF dipole I am making. The largest I have found thus far are 72"
>extended, and I need 96-108", about .25" diameter, not more than .50"
>fattest section, with a threaded or punched base for mounting. I have
>tried Rat Shack and the usual catalog suppliers (Mouser, Fair Radio,
>Ocean State, AES) without success. Does anyone know of a mail-order
>source for such parts?

Only thing I know is the Icom AH2B. You can buy the whip only for this mobile antenna; the whip is 8.2 feet long. It does cost $119, though !!!

Bob
k5qwg

2133. Re: Can a ham get busted for.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 03:58:09 UTC
From: Andy KC2SSB <vhfradiobuff@yahoo.com>
Message-ID: <phdmsu8ltqnllbe2a1md1h6hs23g0kp641@4ax.com>
Source record: 131673

On Fri, 08 Nov 2002 02:39:27 GMT, " Uncle Peter"
<radioconnectionNO@cox.netSPAM> wrote:

>The FCC is pretty lax on enforcement, especially for someone
>running "legal" power on the CB band with ham equipment.
>You'd have to do something pretty outrageous to get their
>attention, and then at worst you'd probably receive several
>desist orders before sterner action is taken. One caveat --
>if you have any FCC license, you can expect to forfiet it if
>you're caught.

Of course, the original poster said 5 watts. Legal limit on CB is 4.
Gotta watch that extra watt! ;)
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com

2134. Re: antenna efficiency ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 04:17:14 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <eVGy9.4507$z5.3314177@newssvr28.news.prodigy.com>
Source record: 131670

That's kinda apples and oranges. The biggest factor would be the Q of the loading coil in the whip vs. the Q of the coil in the tuner (assuming it's an L-network). I would think that a big airwound coil in the center would be a lot higher Q than those used in typical mobile tuners like SGC.

Assuming equal Q...I don't know that there have been any definitive studies of base loading vs. center loading in terms of efficiency. I have seen studies that show mid loading slightly better...and others that show it equal. The base loaded version should have slightly less bandwidth, however.

If both coils are tuneable to resonance, then the efficiency would be similar...although I guess theoretically the lower frequency would be marginally worse since the whip is a fixed length.
--
73,
Larry N8LP

www.telepostinc.con/n8lp.html
"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:usma1nnh6lr7b4@corp.supernews.com...
> I would like to ask the following questions? Assume that you have a
mobile
> with an 8 foot vertical whip with a high Q loading coil near the center
that
> is resonant at 3.9 mHz. Then with a tuner near the antenna you tune for
max
> power. Later you replace the loaded whip with an 8 foot section that has
no
> coil, just a whip. Which one will have the best efficiency and why?
Later
> we QSY to 3.8 mHz and do the same, same question.
> tnx
> hank wd5jfr
> "there are no stupid questions, just stupid lpeople asking so they won't
be
> stupid"
>
>
>

2135. Re: antenna efficiency ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 04:55:32 UTC
From: Leland Cox <lcox107@comcast.net>
Message-ID: <3DCB43C4.4080604@comcast.net>
Source record: 131674

Henry,
The loading coil will get more of the signal nearer to the top of the antenna which means it is higher above the car body. This is why screwdriver antennas and texas bug catchers work so well!

Les,
AA4F

Henry Kolesnik wrote:

> I would like to ask the following questions? Assume that you have a mobile
> with an 8 foot vertical whip with a high Q loading coil near the center that
> is resonant at 3.9 mHz. Then with a tuner near the antenna you tune for max
> power. Later you replace the loaded whip with an 8 foot section that has no
> coil, just a whip. Which one will have the best efficiency and why? Later
> we QSY to 3.8 mHz and do the same, same question.
> tnx
> hank wd5jfr
> "there are no stupid questions, just stupid lpeople asking so they won't be
> stupid"
>
>
>

2136. Re: antenna efficiency ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 06:13:05 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCB55F1.FBB8097A@ieee.org>
Source record: 131675

Henry Kolesnik wrote:
>
> I would like to ask the following questions? Assume that you have a mobile
> with an 8 foot vertical whip with a high Q loading coil near the center that
> is resonant at 3.9 mHz. Then with a tuner near the antenna you tune for max
> power. Later you replace the loaded whip with an 8 foot section that has no
> coil, just a whip. Which one will have the best efficiency and why?

The feedpoint impedance of the loaded antenna will be in the neighborhood
of 20 ohms resistive. That is easy to match with a tuner. The feedpoint
impedance of the whip is about 0.5-j2000 ohms. The losses in the tuner
matching such an impedance would be substantial. I have actually measured
the difference in efficiency between a center-loaded mobile antenna and
a whip driven by an SGC-230. The difference was about 12 dB, i.e. the
center loaded antenna was 16 times more efficient than the whip plus
autotuner.
--
cheers, CAM http://www.qsl.net/w5dxp

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2137. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 06:55:56 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DCB5FFC.BB690C41@shaw.ca>
Source record: 131676

Gordon Couger wrote:
>
> I have been away form the group a long time.
>
> Hamfests sales at flea markets being what they are, lousy I want to keep
> going but it pays better to buy at ham fests and sell on ebay. I want to
> have something to sell at the ham fests and well made reasonably priced
> antennas seem to do reasonably well for me in the past.
>
> I have 3 antenna designs that work and have been range tested side by side
> with commercial products using corn field ranges and they pass a reality
> check and I need to know what patristic to use for the center insulator in
> dipoles (low voltage, high current) and traps where the voltage and loss are
> more critical. UV and weathering are also an important consideration.
>
> I can get all the facts from table, but in a real world compromise what have
> others found to be the best solution for them. Electrically styrene is of
> course the best but practically it useless. Price wise PVC is great but UV
> eats it up. I expect Nylon or one Teflon or on of the others is the all
> around best solution
>
> Thanks for your help
>
> 73
> GordonW5RED
>
> Gordon Couger
> Stillwater, OK
> www.couger.com/gcouger

I've been using scrap plexiglass for years and never
had any problems. Find a local plastic place in your
area and ask about scrap pieces.
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP

Calgary, Alberta, Canada

2138. Where is a datasheet for 1N21E diode ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 07:03:40 UTC
From: en <engai@sprintmail.com>
Message-ID: <3DCB62CD.87135A26@sprintmail.com>
Source record: 131677

I need a datasheet for this microwave diode, sylvania, 1N21E
thanks
Ed

2139. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 07:18:46 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <6Hz4YLBWV2y9EAqa@ifwtech.co.uk>
Source record: 131680

CAM wrote:
>"Ian White, G3SEK" wrote:
>> The value of that factor depends on the pair of different units that it
>> converts between. You can call it "watts per horsepower" to remind you
>> which units are involved, but both watts and horsepower share the same
>> set of dimensions, so their ratio is still just a number - dimensionless
>> by definition.
>
>Egads, you mean everything in my graduate course textbook on dimensional
>analysis is wrong?

I'm sure the book is just fine... but have you actually checked it what
it really says, as opposed to your recollection of it?

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

2140. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 07:30:34 UTC
From: Wayne <w>
Message-ID: <usmq0ra40d3meb@corp.supernews.com>
Source record: 131678

Hmm, this sounds like instances where the neutral line is in poor condition
at some point.
Otherwise. there should be no voltage potential between the neutral and the
actual ground.
But there may have been some electrolytic action causing the problem, and,
as I said, a faulty neutral.
This is why it is also important to have that ground in good condition, as
well as an actual connection in your main panel box between the ground and
neutral..

"Owen Duffy" <owen@oda.com.au> wrote in message
news:3D7979CC.7D966BFF@oda.com.au...
>
>
> N4LQ wrote:
> >
> > I cut the main water pipe to install a whole house filter. The filter is
> > plastic and came with a jumper wire to complete the electrical bypass.
Since
> > I use this pipe for my ground, I was curious if it really worked or if
> > plastic was used to the street main. So before installing the wire, I
>
> There have been cases of electrocution in this area where plumbers have
> removed the water meter and so broken the metallic connection. (The
> electrical supply distribution scheme is MEN.) I suspect that the cases
> of serious electrocution were probably under fault conditions, but I
> recall that the documentation from the supply authoritiy suggested that
> the 'residual' currents measured could be dangerous to people with a
> weak ticker. In any case, they mandate a procedure of electrically
> shunting the intended pipe break before opening the pipe connection.
>
> Owen

2141. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 07:48:35 UTC
From: gcd <gcdNOSPAM@austarmetro.com.au>
Message-ID: <3dcb6c4f@news.comindico.com.au>
Source record: 131679

Hi again all,

Rather than me continue to try and convince you there is only 100W in that 150 ohm line, how about you have a go to convince me there is 133W.

There is 100W and there will be VARs - thats a hint
At any point on that line there is 100W and quite a few VARs to boot as it's mismatched at both ends

A wattmeter is a misnomer. The only true wattmeter is a calorimeter n(or bolometer) load, where the power is actually measured.

Inline meters (as far as I'm aware) only measure current, and the amplitude at that, not the phase. I've not seen one that does, but I'll concede there may be one.

As you indicate above, the reflection at the generator is considered part of the incident . however that reflection affects the impedance presented to the generator as was identifed in earlier posts. thus the steady state is created once more.

Those measurements are only usefull when the source impedance is matched to the line. The forward measurement ON THE LINE is assumed to be incident from the source, not from reflections at the source end of the line. Thus the meter references the reflected current to the incident and displays on meters calibrated with respect to Zo.

QED
Greg

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:25644-3DCA6A53-177@storefull-2314.public.lawson.webtv.net...
> Greg wrote:
> "An inline power meter (really a voltmeter and again lossless) is
> manufactured with the assumption that the generator is matched to the
> line."
>
> Generator match to the transmission line is of no significance to the
> line power measurements in a Bird wattmeter.
>
> Reflection at the generator is ignored by an inline power meter. It
> becomes part of the incident power.
>
> Reflection from the discontinuity opposite the generator produces
> reflected power sensed by the meter.
>
> Were the load matched to the line, there would be no reflected power.

>
> Impedance on a mismatched line varies with extent of the mismatch and
> distance back from the discontinuity. The inline power meter ignores the
> impedance variations produced by mismatch. the only impedance
> significant to the meter is Zo. That is because the meter looks only at
> the power traveling in one direction at a time. The power traveling in
> one direction sees only Zo in the line.
>
> Consequence and proof of the above is that power can be measured
> anywhere along the transmission line and indicates the same value except
> for line loss.
>
> Best regarda, Richard Harrison, KB5WZI
>

2142. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 10:56:11 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DCB984B.D1879EA7@cwis.net>
Source record: 131681

Fred,
Fear not! After enough trips around the mulberry
bush, I'm sure the 'correct' answer will be revealed
to us...
'Doc

2143. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 11:41:39 UTC
From: KC1DI <elbc2@gwi.net>
Message-ID: <kk8nsuga09titgbmhl50le6dudpqn8lqpr@4ax.com>
Source record: 131682

On Thu, 7 Nov 2002 17:51:51 -0600, "Gordon Couger"
<gcouger@NOSPAMprovalue.net> wrote:

>I have been away form the group a long time.
>
>Hamfests sales at flea markets being what they are, lousy I want to keep
>going but it pays better to buy at ham fests and sell on ebay. I want to
>have something to sell at the ham fests and well made reasonably priced
>antennas seem to do reasonably well for me in the past.
>
>I have 3 antenna designs that work and have been range tested side by side
>with commercial products using corn field ranges and they pass a reality
>check and I need to know what patristic to use for the center insulator in
>dipoles (low voltage, high current) and traps where the voltage and loss are
>more critical. UV and weathering are also an important consideration.
>
>I can get all the facts from table, but in a real world compromise what have
>others found to be the best solution for them. Electrically styrene is of
>course the best but practically it useless. Price wise PVC is great but UV
>eats it up. I expect Nylon or one Teflon or on of the others is the all
>around best solution
>
>Thanks for your help
>
>73
>GordonW5RED
>
>Gordon Couger
>Stillwater, OK

Hi Gordon,
I've also found that Lexan works well if you can find a source for it
around you.. it's the stuff they use in bullitproffing banks .

It's tuff and seems to exhibit good rf insulating properties.
73 Dave kc1di

2144. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 12:38:42 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCBB052.951E1B2F@ieee.org>
Source record: 131683

"Ian White, G3SEK" wrote:
>
> CAM wrote:
> >Egads, you mean everything in my graduate course textbook on dimensional
> >analysis is wrong?
>
> I'm sure the book is just fine... but have you actually checked it what
> it really says, as opposed to your recollection of it?

Ian, when I pulled Richard's leg, I didn't realize there were so many
other legs dangling down. Looks like I got an armful.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2145. Be

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 12:52:17 UTC
From: Frank Donovan <donovanf@erols.com>
Message-ID: <aqgch1$58n$1@bob.news.rcn.net>
Source record: 131684

[No readable article body recovered]

2146. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 12:53:06 UTC
From: Frank Donovan <donovanf@erols.com>
Message-ID: <aqgcij$5ch$1@bob.news.rcn.net>
Source record: 131685

Gordon Couger <gcouger@NOSPAMprovalue.net> wrote in message
news:w_Cy9.17$P71.15793@newsfeed.slurp.net...
> I have been away form the group a long time.
>
> Hamfests sales at flea markets being what they are, lousy I want to keep
> going but it pays better to buy at ham fests and sell on ebay. I want to
> have something to sell at the ham fests and well made reasonably priced
> antennas seem to do reasonably well for me in the past.
>
> I have 3 antenna designs that work and have been range tested side by side
> with commercial products using corn field ranges and they pass a reality
> check and I need to know what patristic to use for the center insulator in
> dipoles (low voltage, high current) and traps where the voltage and loss
are
> more critical. UV and weathering are also an important consideration.
>
> I can get all the facts from table, but in a real world compromise what
have
> others found to be the best solution for them. Electrically styrene is of
> course the best but practically it useless. Price wise PVC is great but UV
> eats it up. I expect Nylon or one Teflon or on of the others is the all
> around best solution
>
> Thanks for your help
>
> 73
> GordonW5RED
>
> Gordon Couger
> Stillwater, OK
> www.couger.com/gcouger
>
>

2147. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 13:02:26 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCBB5E2.EA6D7130@ieee.org>
Source record: 131686

gcd wrote:
> Rather than me continue to try and convince you there is only 100W in that
> 150 ohm line, how about you have a go to convince me there is 133W.

Be glad to. Imagine a one second long piece of lossless 150 ohm transmission line with a 50 ohm load and a 100w source. One second after the transmitter is keyed, the line will contain 100 joules, i.e. the output of a 100w transmitter for one second. There are no reflections yet and no power has reached the load. At the end of two seconds, the transmitter will have output 200 joules. 75 joules will have been delivered to the load and 25 joules will have been reflected from the load since Rho=0.5. That means that 125 joules is stored in the line. Take it second by second and you will see a buildup to steady-state conditions. When steady-state is reached, 100 joules/sec is still being sourced, 100 joules/sec is being delivered to the load. 133.33 joules are stored in the forward wave on the way toward the load and 33.33 joules are stored in the reflected wave on the way toward the source. The transmitter has sourced 166.66 joules (with the voltage and current in phase) that have not yet made it to the load. During any one second period. 133.33 joules/sec of forward energy will pass a forward power measurement point. 33.33 joules/sec of reflected energy will pass a reflected power measurement point. The energy in the forward and reflected waves has been generated by the transmitter as watts, not vars. The V*I*cos(0 deg) equals 133.33 joules/sec for forward power. The V*I*cos(180 deg) equals 33.33 joules/sec for reflected power.

Are you aware that a transmission line forces certain conditions upon waves? For any single wave, V and I are either in phase or 180 deg out of phase, i.e. the cosine of the angle between voltage and current is equal to one, V/I=Z0, Power in watts (not vars) = V*I = V^2/Z0 = I^2*Z0.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2148. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 13:33:15 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <gaQuvnCb07y9EAZK@ifwtech.co.uk>
Source record: 131687

CAM wrote:
>> >Egads, you mean everything in my graduate course textbook on dimensional
>> >analysis is wrong?
>>
>> I'm sure the book is just fine... but have you actually checked it what
>> it really says, as opposed to your recollection of it?
>
>Ian, when I pulled Richard's leg, I didn't realize there were so many
>other legs dangling down. Looks like I got an armful.

Don't we all, from time to time! Welcome to r.r.a.a...

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

2149. Re: Can't Find Insulators:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 14:52:20 UTC
From: Bill Grimwood <bill@grimwood.net>
Message-ID: <usnn84qrrdunba@corp.supernews.com>
Source record: 131690

Go to a farm supply store like the Co-Op where they sell fencing supplies.
You will find several types of insulators that will work. They have plastic
and ceramic here in Alabama.

K1WEG

"jack D" <jackinariz@webtv.net> wrote in message
news:24606-3DC85813-320@storefull-2137.public.lawson.webtv.net...
> I am getting a project together...I want to put insulators at the mast
> for the guylines......But i can't find insulators anywhere.....Except
> India or China.....Anyone know?..Jack D.
>

2150. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 14:55:59 UTC
From: Alan Beagley <abeagley@optonline.net>
Message-ID: <3DCBD082.5040807@optonline.net>
Source record: 131688

My local Home Depot used to sell Lexan, but they've either stopeed or it's been moved.

-=-
Alan, AB2OS

KC1DI wrote:
> Hi Gordon,
> I've also found that Lexan works well if you can find a source for it
> around you.. it's the stuff they use in bullitproffing banks .
>
> It's tuff and seems to exhibit good rf insulating properties.

2151. Coax ground

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 15:11:22 UTC
From: Bill Ogden <ogden@us.ibm.com>
Message-ID: <3DCBD41A.C5A6C639@us.ibm.com>
Source record: 131689

I plan to install a half-sloper on a crankup tower. The half-sloper will be at the top of the second section of a TX-455 tower. (Since there is only a quad at the top, I assume that I will need the top tower section as part of the "counterpoise"). The various cables up the tower (coax to a quad, rotator, coax switch, coax to the hanf-sloper) will go through the standoffs outside the tower.

The tower itself is the primary radiator for the half-sloper. Is the outside of the coax effectively part of the radiating element in this case? Do I need to connect the coax shield to the bottom of the tower?

I also want to install a ground panel with lightning bypass units (coax, rotator, coax switch) just outside the house at the cable entry point. This is about 50' from the tower. Each coax connection is a point of failure (especially in my case because I am not very good at installing connectors). I hesitate to put coax connectors at the bottom of the tower AND at the house cable entry point unless I really need them. (There are also connectors on the coax switch mounted on the quad boom.)

The common reference books all say that the coax should run down the inside of the tower. The good people on the Towertalk reflector almost all use the cable standoffs in the case of crankup towers.

Bill
W2WO

2152. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 15:42:59 UTC
From: richardharrison@webtv.net
Message-ID: <10586-3DCBDB83-340@storefull-2317.public.lawson.webtv.net>
Source record: 131692

Greg wrote:
"---how about you have a go to convince me there is 133W."

A uniform transmission line has uniformly distributed series inductance and shunt capitance. An electrical pulse imposed on the line must move and its movement is current on the line. The line`s construction determines its L&C per unit length. These in turn dictate the current a particular pulse causes. It is the same voltage to current ratio for pulses of any shape or amplitude. So, it is called a surge impedance and in an ideal line it is a resistance. That is, the current is instantaneous with the voltage, it is "in-phase". The Zo, the surge impedance, is a a resistance (lossless). Resistance means the current is in-phase with the voltage. Its magnitude is 50 ohms, 600 ohms, or whatever as a voltage to current ratio.

When a voltage is applied to a point, the current depends on an impedance limiting the current and the difference of potential at the point. If a voltage of the same magnitude and phase exists at the point, there is no current imposed regardless of impedance.

Reflection from a load on a transmission line returns to the generator. It can add or subtract from the difference of potential causing energy transfer into the transmission line. This is effectively a changed impedance presented to the generator.

The reflection has nothing to do with the impedance enforced by the transmission line! The line only allows energy to be transferred in either direction at a voltage to current ratio of Zo.

There is a "forward power" and a "reflected power" because in-phase transfer is enforced by the line. Go to any good transmission line text for the reflection mechanics, Terman for example.

As Dr. John Fakin said, "A man convinced against his will is a man unconvinced still."

Best regards, Richard Harrison, KB5WZI

2153. Re: Coax ground

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 16:00:33 UTC
From: richardharrison@webtv.net
Message-ID: <25644-3DCBEDB1-298@storefull-2314.public.lawson.webtv.net>
Source record: 131696

Bill Ogden, W2WO wrote:
"Each coax connector is a point of failure--."

There is vulnerability to moisture added to possible mechanical failure. You need a dry shelter for your connections. Wraps which never admit water can be made with electrician`s stretchy rubber tape and this is then topped with vinyl tape and doped with a good sealant. Game`s over when water enters a connector or splice.

Best regards, Richard Harrison, KB5WZI

2154. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 16:06:37 UTC
From: dan <danlx@execpc.com>
Message-ID: <3dcbe038$0$1427$272ea4a1@news.execpc.com>
Source record: 131691

On Fri, 08 Nov 2002 14:55:59 GMT, Alan Beagley
<abeagley@optonline.net> wrote:

>My local Home Depot used to sell Lexan, but they've either stopeed or it's been moved.
>
>-=-
>Alan, AB2OS
>
>
>KC1DI wrote:
>> Hi Gordon,
>> I've also found that Lexan works well if you can find a source for it
>> around you.. it's the stuff they use in bullitproffing banks .
>>
>> It's tuff and seems to exhibit good rf insulating properties.
Hi all,
Look in the phone book under plastic and glass. Plastic distributors
and companies that use plastic usually have a dumpster with scraps in
it. I have had good luck by asking the guy at the loading dock if I
can get a few pieces out for my project use. If they say no, come
back after hours and leave a couple of bucks for the pieces you take.

Glass shops also have plastic and sometimes have small cutoffs that
they can't sell at retail prices. Always haggle with them.

Referring to an earlier post. Lexan is not bulletproof, just bullet
resistant. It can be penetrated with the right load. Unless the
lexan is installed properly it can also be blown out of the opening by
a large caliber slug. I have seen Kevlar used to make walls in banks
and gas stations harder to penetrate but never Lexan. Matter of fact,
if you have installed the drive thru window assemblies in banks and
gas station pass throughs as I have, you would know exactly where to
shoot to avoid hitting anything that would do more than slow down a
bullet.

One gas station owner covered the concrete block walls and attendant
area door with Kevlar and put bullet resistant glass in all the
windows around the cashier and a bullet resistant Lexan cash pass thru
window assembly in. Only thing he did not do was put anything behind
the pegboard under the pass thru window. He thought no one would
notice it because it was covered with candy. LOL
Dan
N9JBF

I've rambled enough, back to the rocking chair. ZZZZZZZZZ
Remove left x for e-mail reply.

2155. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 16:17:39 UTC
From: richardharrison@webtv.net
Message-ID: <17015-3DCBE3A3-292@storefull-2311.public.lawson.webtv.net>
Source record: 131695

Greg wrote:
"At any point on that line there is 100W and quite a few VARs to boot as it`s mismatched at both ends."

See, that`s one of those too-broad statements. At every quarter-wave back from a mismatch, there is a phase-reversal. At these points, the reactance goes through zero. There are no volt-amps reactive (VARs) where there is no reactance.

You have plus and minus reactances on a mismatched line, but no negative resistance (the line wont amplify or remove loss). The resistance in a mismatched ideal line can cycle between zero and infinity, but it can`t go negative. See 1955 Terman, page 99.

Best regards, Richard Harrison, KB5WZI

2156. Re: Questions on Wire Antennas-Advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 16:24:47 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <8mydnV1HQv5geVagXTWcpg@comcast.com>
Source record: 131693

Dennis,

On Optiopn-B, have you considered dropping both ends, and keeping it
symmetrical? That would keep a major part of it at a good height, and
neither end would be as low as 15'. I realize thar trees do not grow where
you want them to ...

Tam/WB2TT

.....
>"Dennis" <kg6zi@yahoo.com> wrote in message
news:3f36625c.0211070858.37b18e24@posting.google.com...
> Option B has a length of between 125 and 130 feet, one end at the
> same 50 feet, but the eastern end will be about 15' above the
> ground..i.e. a sloper.
>
> I'd be particularly interested in how the two options might compare on
> the lower bands (80/40). On one hand I can have the height for the whole
> length, but only 100 feet long, the other has more length but a lot closer
to
> the ground on one end. Comments?
>
> Thanks for your time. Please feel free to email direct.
>
> Dennis

2157. Re: How does a tuner match parallel dipoles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 16:35:24 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211080835.2cbbb18b@posting.google.com>
Source record: 131694

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<10587-3DCA805F-65@storefull-2317.public.lawson.webtv.net>...
> Harry, VE3GRO wrote:
> "Could you get a directional effect by changing the settings on an
> antenna tuner back at the shack?"
>
> Follow Cecil`s advice and explore for yourself. But, the short answer is
> you can affect the directional characteristics of a directional array
> back at the shack if your controls change the power ratio and phase
> between elements as broadcasters` controls often do. Ham tuners usually
> only affect the combined antenna signal and have no effect on
> directional characteristics of an array.

You can build an "L-C" phasing unit fairly easily. You can make one
from a L net tuner, if you swap a few wires around. I had a diagram to
make one somewhere...
But in the real world, I preferred coax lines to change direction when
I used phased arrays. If you want a directional effect from two
dipoles, I always ran them parallel, and both tuned to the same freq.
I've never tried off freq dipoles at right angles. But offhand, I
don't think it would pan out too well. You can run a turnstile, and
feed in three different ways, and have three sets of patterns. That
will work fairly well, but no real gain over a single dipole unless
it's used on a higher than normal frequency. And then in that case,
you would need to use ladder lines instead of coax, to avoid line
losses.
Running parallel dipoles phased will give you performance nearly equal
to a two el yagi. Maybe 4-5 db gain over a single dipole, and a decent
f/b ratio. 20 db f/b was about average when I ran those on 40m. MK

2158. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 17:18:00 UTC
From: fractenna@aol.com
Message-ID: <20021108121800.25525.00000107@mb-ch.aol.com>
Source record: 131697

Hi Gordon!

CPVC is best.

73,
Chip N1IR

2159. Re: Questions on Wire Antennas-Advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 17:31:13 UTC
From: kg6zi@yahoo.com
Message-ID: <3f36625c.0211080931.64dbe803@posting.google.com>
Source record: 131698

I think you're saying both (the dipole and the loop) are "half way"
decent for 80....but then I don't understand why they wouldn't be as
good or possibly better (more wavelengths of wire at 40 than 80) on
40..especially for the loop and considering they're both fed with open
wire and a tuner.

Can you explain?

Dennis

'Doc <w5lz@cwis.net> wrote in message news:<3DCACF88.CBFE4322@cwis.net>...
> Dennis,
> Sounds like you will have two 'half-way' decent
> antennas for 80 meters. Neither will be too good
> on 40 meters.
> As to the doublet, I think either option will
> work.
> 'Doc

2160. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 17:41:34 UTC
From: tdonaly@aol.com
Message-ID: <20021108124134.29150.00000242@mb-ba.aol.com>
Source record: 131699

CAM wrote,
>
>"Ian White, G3SEK" wrote:
>>
>> CAM wrote:
>> >Egads, you mean everything in my graduate course textbook on dimensional
>> >analysis is wrong?
>>
>> I'm sure the book is just fine... but have you actually checked it what
>> it really says, as opposed to your recollection of it?
>
>Ian, when I pulled Richard's leg, I didn't realize there were so many
>other legs dangling down. Looks like I got an armful.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>
>
That's what you get when the Devil makes you do things. I thought
your leg-pulling was pretty funny.
73,
Tom Donaly

2161. Re: Dual frequency microstrip antenna-Help!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 18:41:33 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0211081041.5a7bdba0@posting.google.com>
Source record: 131700

Hi,
Thanks for ur help. I am not very good in this area but i need to finish this work by january ie i need to fabricate and test it. I dont have enough time to go through all the papers. Kindly give some more details on your hints.

Thanks in advance.

2162. Re: Dual frequency microstrip antenna-Help!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 19:16:23 UTC
From: fractenna@aol.com
Message-ID: <20021108141623.11265.00000034@mb-fe.aol.com>
Source record: 131701

>Hi,
> Thanks for ur help. I am not very good in this area but i need to
>finish this work by january ie i need to fabricate and test it. I dont
>have enough time to go through all the papers. Kindly give some more
>details on your hints.
>
>Thanks in advance.
>

I give up.

Chip,N1IR

2163. Re: Another Antenna Question.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 19:43:22 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <utUy9.2428$vZ6.2253016@newshog.newsread.com>
Source record: 131702

"KC8PMX" <kc8pmx@NOSPAMdiamondcs.net> wrote in message
news:aqb50f33op@enews1.newsguy.com...
> Roger.... you have stated nothing below that I didn't already know.... the
> purposes of the discussion is to convert that to even simpler "laymens"
> terms.

Even drawing pictures, or using models with water to show wave action will never present electronics, antennas, radios, or computers in a way the layman will understand.

Even the flashlight, which works like a very efficient two element, or even three element doens't give them an anology they can understand because they don't understand how the reflector works in the flashlight. They think they do, so they say it makes sense, but to them it works because the reflector in the flashlight is shiny and reflects the light. They have no concept of focus and wave fronts.

It's not that the concepts are difficult to understand, it's just the average individual doesn't think in those terms and isn't willing to take the time to learn.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)
>
> Thanks,
>
> --
> Ryan, KC8PMX
> FF/MFR
> REMOVE "NOSPAM" in email address to reply.
>
>
> > Ryan...for shame!
> > Here you have an article titled, "A Verbal Graphic Description of Gain
> > Antenna Operation". It was in CQ magazine back in the late 70s. The
author
> > is local. Most in the club should remember...well, then again, many of
> them
> > are getting along in years. I've seen it happening over many
> decades....Now
> > we were talking about what?
> >
> > Basically in a Yagi:

> >
> > The element lengths and spacings are such that, going step wise.
> >
> > 1. The signal is radiated by the driven element
> > 2. The radiated signal creates a current in the reflector whos length
> and
> > spacing is shuch that when the reflector reradiates the signal it will
be
> > out of phase with the next cycle from the driven element which cancels
> much
> > of the signal to the rear.
> > 3. The director, like the reflector reradiates a signal, but it's
> spacing
> > from the driven element and length put it's signal in phase with the
next
> > cycle from the driven element, adding to the signal strength in that
> > direction.
> >
> > Element lengths and spacings are often varied a bit to give wider band
> > width, at the expense of gain. Higher front-to-back also comes at the
> > expense of gain. That being the case, most Yagi antennas are a
compromise
> > between maximum gain, front-to-back, and bandwidth.
> > The article takes you through it step-by-stp.
> >
> > If he can find the article, I'm certain the author would be happy to
make
> > some copies for you. As CQ holds the copyright, others would have to
> contact
> > them to get the complete article.
> >
> >
> > --
> > Roger Halstead (K8RI EN73)
> > www.rogerhalstead.com
> > N833R World's oldest Debonair? (S# CD-2)
> > > manner. Take this as if you were trying to explain this to someone
who
> > does
> > > not have much knowledge of radio theory, say for instance, like your
> > > grandmother or an aunt somebody like that.
> > >
> > >
> > > Like I stated, I can explain it in the technical manner, but am trying
> to
> > > figure out how to explain it to average person with little to no radio
> > > theory experience...
> > >
> > >
> > > Thanks,

> > >
> > >
> > > --
> > > Ryan, KC8PMX
> > > FF/MFR
> > > REMOVE "NOSPAM" in email address to reply.
> > >
> > >
> >
> >
>
>

2164. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 19:44:51 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <TuUy9.2429$vZ6.2253308@newshog.newsread.com>
Source record: 131703

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DCA5044.48A0ACE4@ieee.org...
> Roger Halstead wrote:
> > This is contrary to my experience.
>
> You obviously don't have Entergy as your power company.

??

Roger (K8RI)
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
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> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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2165. Re: Can a ham get busted for.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 19:55:39 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <%EUy9.2430$vZ6.2253512@newshog.newsread.com>
Source record: 131704

"David G. Nagel" <nagel@core.com> wrote in message
news:3DCAEF90.3030800@core.com...
> yes. beleive it or not CB radios must be TYPE ACCEPTED. ham radios are
> not. they must meet certin requirements if commercially made but are not

Actually the FCC has required a type acceptance for commercial Ham Rig for some time.
The difference is we can modify the Ham Rig and it is still legal (as long as the emissions are clean and on frequency)

> type accpeted. also CB radios must not be controled by a VFO. or VFO

In todays radios, this is kind of a moot point as both the ham rigs and the CB rigs use a phased locked loop for frequency control. Both are programmed. In the Ham rig the steps are very small, but they are still steps. In the CB rig they are discrete, specific frequencies for each channel.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)

> type tuner.
> Dave wd9bdz
>
>
> nospam wrote:
>
> >using a modified ham radio (with power cut back to 5 watts)
> >on CB?
> >
> >
> >
>

2166. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 20:20:11 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <%%Uy9.2431$vZ6.2254170@newshog.newsread.com>
Source record: 131705

"Wayne" <w> wrote in message news:usmq0ra40d3meb@corp.supernews.com...
> Hmm, this sounds like instances where the neutral line is in poor
condition
> at some point.
> Otherwise. there should be no voltage potential between the neutral and
the
> actual ground.
> But there may have been some electrolytic action causing the problem,
and,
> as I said, a faulty neutral.
> This is why it is also important to have that ground in good condition,
as
> well as an actual connection in your main panel box between the ground and
> neutral..

BE VERY CAREFUL ABOUT GROUNDING to a WATER SYSTEM!
Make *certain* the water system is really grounded. Many new water systems may be metal on the inside of the house, but the connection between the house and main is likely to be plastic. The same is true of gas lines.

I just rewired the house, had the feed changed from overhead to underground and the service from an old 60 Amp split buss to a 200 Amp with a secondary feed from the 9KW generator through a 60 Amp box/transfer switch.

The inspector like the instalation, and the only changes he wanted to see were the grounding added to the gas line and to the water line. He said the national code required both. I pointed out that although both were metal inside the house they were both plastic outside. He said no, the water line coming in had to be metal. I got out the flashlight, and showed him the end of the plastic water line coming in and fastening to the *brass* valves and metering. I left the gas line grounded (it's supposed to have a small static ground molded in), but we both decided that with a plastic water main, the house was far safer without grounding the electrical system to an ungrounded water system.

Stop and think about the ramifications of grounding to your house water system when it is not grounded.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S/N CD-2)
>
>
> "Owen Duffy" <owen@oda.com.au> wrote in message
> news:3D7979CC.7D966BFF@oda.com.au...

> >
> >
> > N4LQ wrote:
> > >
> > > I cut the main water pipe to install a whole house filter. The filter
is
> > > plastic and came with a jumper wire to complete the electrical bypass.
> Since
> > > I use this pipe for my ground, I was curious if it really worked or if
> > > plastic was used to the street main. So before installing the wire, I
> >
> > There have been cases of electrocution in this area where plumbers have
> > removed the water meter and so broken the metallic connection. (The
> > electrical supply distribution scheme is MEN.) I suspect that the cases
> > of serious electrocution were probably under fault conditions, but I
> > recall that the documentation from the supply authoritiy suggested that
> > the 'residual' currents measured could be dangerous to people with a
> > weak ticker. In any case, they mandate a procedure of electrically
> > shunting the intended pipe break before opening the pipe connection.
> >
> > Owen
>
>

2167. Re: Coax ground

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 20:30:09 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <l9Vy9.2432$vZ6.2255321@newshog.newsread.com>
Source record: 131706

"Bill Ogden" <ogden@us.ibm.com> wrote in message
news:3DCBD41A.C5A6C639@us.ibm.com...
> I plan to install a half-sloper on a crankup tower. The half-sloper
> will be at the top of the second section of a TX-455 tower. (Since
<snip>
> This is about 50' from the tower. Each coax connection is a point of
> failure (especially in my case because I am not very good at installing
> connectors). I hesitate to put coax connectors at the bottom of the
> tower AND at the house cable entry point unless I really need them.
> (There are also connectors on the coax switch mounted on the quad boom.)

There is a very good page (which I unfortunately have forgotten the URL) on tower and feed line grounding. They do not use connectors at the bottom of the tower, but they do strip the insulation off the coax and ground the brade to the tower just a bit above the base. This allows the coax to make a sweeping turn to come to the house.

There is no connector, but there is the added difficulty of sealing the braid and connection. I'd use "liquid electrical tape", but it's still difficult to get all the spots.

Ground cables come off each leg of the tower in a sweeping curve to the first ground rod and then on out to each of the other ground rods in the system.

The lightening arrestors come before the cable enters the house, or right at the bulkhead if you come in straight. If you make a turn the bulkhead is installed prior to the turn giving the lightening the least path of resistance. (the turn needs to be quite close to the entrance.)

>
> The common reference books all say that the coax should run down the
> inside of the tower. The good people on the Towertalk reflector almost
> all use the cable standoffs in the case of crankup towers.

I have the coax taped to the outside of the tower, but I do not use the tower as a radiator.
Most of the commercial installations I've seen use cable trays, or mounts on the outside of the tower.

If you are going to use the tower as a radiator, you may have a problem with the coax on the outside, but being a crank up you may have problems with it on the inside.
>

--
Roger Halstead (K8RI EN73)

www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)
> Bill
> W2WO
>

2168. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 21:05:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uso9ov2b01tb27@corp.supernews.com>
Source record: 131707

After some thought, I can't think of any good reason not to ground the water system. What are the negative ramifications you're referring to?

Obviously the water system shouldn't be used to provide the ground connection if it's plastic, but assuming that your power system is otherwise properly grounded, what's the harm in connecting the water pipes (or any other metallic objects) to ground?

Roy Lewallen, W7EL

Roger Halstead wrote:
>
> BE VERY CAREFUL ABOUT GROUNDING to a WATER SYSTEM!
> Make *certain* the water system is really grounded. Many new water systems
> may be metal on the inside of the house, but the connection between the
> house and main is likely to be plastic. The same is true of gas lines.
>
> I just rewired the house, had the feed changed from overhead to underground
> and the service from an old 60 Amp split buss to a 200 Amp with a secondary
> feed from the 9KW generator through a 60 Amp box/transfer switch.
>
> The inspector like the instalation, and the only changes he wanted to see
> were the grounding added to the gas line and to the water line. He said the
> national code required both. I pointed out that although both were metal
> inside the house they were both plastic outside. He said no, the water line
> coming in had to be metal. I got out the flashlight, and showed him the end
> of the plastic water line coming in and fastening to the *brass* valves and
> metering. I left the gas line grounded (it's supposed to have a small
> static ground molded in), but we both decided that with a plastic water
> main, the house was far safer without grounding the electrical system to an
> ungrounded water system.
>
> Stop and think about the ramifications of grounding to your house water
> system when it is not grounded.
>
>
> --
> Roger Halstead (K8RI EN73)
> www.rogerhalstead.com
> N833R World's oldest Debonair? (S# CD-2)
>
>>
>>"Owen Duffy" <owen@oda.com.au> wrote in message
>>news:3D7979CC.7D966BFF@oda.com.au...
>>

>>>
>>>N4LQ wrote:
>>>
>>>>I cut the main water pipe to install a whole house filter. The filter
>>>
> is
>
>>>>plastic and came with a jumper wire to complete the electrical bypass.
>>>
>>Since
>>
>>>>I use this pipe for my ground, I was curious if it really worked or if
>>>>plastic was used to the street main. So before installing the wire, I
>>>
>>>There have been cases of electrocution in this area where plumbers have
>>>removed the water meter and so broken the metallic connection. (The
>>>electrical supply distribution scheme is MEN.) I suspect that the cases
>>>of serious electrocution were probably under fault conditions, but I
>>>recall that the documentation from the supply authoritiy suggested that
>>>the 'residual' currents measured could be dangerous to people with a
>>>weak ticker. In any case, they mandate a procedure of electrically
>>>shunting the intended pipe break before opening the pipe connection.
>>>
>>>Owen
>>
>>
>
>

2169. Re: Coax ground

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 21:39:55 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DCC2F2B.C9CDCD35@cwis.net>
Source record: 131708

Bill,
The coax shield is not (or shouldn't be) a radiating
part of the antenna. No, I wouldn't ground the shield
at the bottom of the tower.
If you're using one of the commercially made ground
panels, do what the instructions say to do. If you're
making your own ground panel, it wouldn't hurt to take
a look at the commercial systems to see how they do it.
I would think that a 'ground' at the base of a tower
wouldn't be needed since you'll be handling it through
a grounding panel anyway...
'Doc

2170. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 21:42:44 UTC
From: richardharrison@webtv.net
Message-ID: <13327-3DCC2FD4-419@storefull-2316.public.lawson.webtv.net>
Source record: 131710

Wes Stewart, N7WS wrote:
"Within the claimed BW of 30%, the first sidelobe is down only 6 dB at 230 MHz."

No quarrel with EZNEC. It is assumed a 200 MHz TV antenna is many wavelengths above the earth, unless it is rabbit ears atop the set. 230 MHz is within the 30% bandwidth of the rhombic. 30 degrees off the azimuth of the rhombic is outside the beamwidth of the rhombic, which is no more than plus or miinus 15 degrees. Bailey gives the patterns. The first sidelobes are at about 40 degrees either side of the rhombic heading and they are down about 10 db.. A reference dipole would be down only 3 or 4 db at 40 degrees off heading, so the rhombic is at least 6 db better, should you have interference from the sidelobe direction.

The point is, where interference may come from is rarely know in advance. Directivity may be important. Gain and directivity are almost different names for the same thing. The antenna with the most gain has the most directivity.

The UHF rhombic recommended to be scaled from the 200 MHz rhombic may be rotated to put interference in a 50 db null!

Best regards, Richard Harrison, KB5WZI

2171. Re: Questions on Wire Antennas-Advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 21:48:55 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DCC3147.7BA8F50B@cwis.net>
Source record: 131709

Dennis,
Because 40 meters will be the second harmonic of
both antennas, which usually doesn't work out so well.
The loop will probably 'do' better than the doublet
since 40 meters would almost be the third harmonic,
sort of, but I'm guessing.
'Doc

2172. Re: What is a good, small 6 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 22:31:56 UTC
From: Andy Blackburn <andyblackburn3@comcast.net>
Message-ID: <jUqdnbF-IaOkplGgXTWcpA@comcast.com>
Source record: 131711

A vertical such as a ground plane is OK for local FM work and strong SSB
signals.
For weak signal SSB/DX, ...I would say use a minimum of a 3 element rotable
beam (bigger if possible.) If all you can do is use rotatable dipole, that
is better
than nothing. Always use good low-loss coax and make it as short as
possible
to minimize rf losses.

Andy Blackburn

----- Original Message -----
From: "nospam" <xxxmmxxx@xxxspiritone.com>
Newsgroups: rec.radio.amateur.antenna
Sent: Friday, November 08, 2002 1:58 PM
Subject: What is a good, small 6 meter antenna?

> Do ground planes for 6 meter work very well?
>
> I never hear anything on that band except a local beacon.
> Using an inv. L for 160 m for antenna.
>
> What are good frequencies to monitor?
>
"nospam" <xxxmmxxx@xxxspiritone.com> wrote in message
news:3DCC0973.65DDC2F7@xxxspiritone.com...
> Do ground planes for 6 meter work very well?
>
> I never hear anything on that band except a local beacon.
> Using an inv. L for 160 m for antenna.
>
> What are good frequencies to monitor?
>

2173. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 22:54:34 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCC40AA.B4D499A9@ieee.org>
Source record: 131712

"J. Harvey" wrote:
>
> "CAM"
> > If I send you a couple of bucks, do you think you might buy a
> > sense of humor?
>
> US or Canadian bucks ?

Texas bucks have horns.
--
cheers, CAM http://www.qsl.net/w5dxp

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2174. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 22:57:30 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <usogargfpblmf9@corp.supernews.com>
Source record: 131713

As long as we are making long transmission lines, let's make one twenty years long. I transmit 100 watts for 5 years and then sell the transmitter and short the end of the transmission line.

"CAM" <Cecil.A.Moore@ieee.org> wrote in message news:3DCBB5E2.EA6D7130@ieee.org...
> gcd wrote:
> > Rather than me continue to try and convince you there is only 100W in that
> > 150 ohm line, how about you have a go to convince me there is 133W.
>
> Be glad to. Imagine a one second long piece of lossless 150 ohm transmission
> line with a 50 ohm load and a 100w source. One second after the transmitter
> is keyed, the line will contain 100 joules, i.e. the output of a 100w
> transmitter for one second. There are no reflections yet and no power has
> reached the load. At the end of two seconds, the transmitter will have output
> 200 joules. 75 joules will have been delivered to the load and 25 joules will
> have been reflected from the load since Rho=0.5. That means that 125 joules
> is stored in the line. Take it second by second and you will see a buildup to
> steady-state conditions. When steady-state is reached, 100 joules/sec is still
> being sourced, 100 joules/sec is being delivered to the load. 133.33 joules are
> stored in the forward wave on the way toward the load and 33.33 joules are
> stored in the reflected wave on the way toward the source. The transmitter
> has sourced 166.66 joules (with the voltage and current in phase) that have not
> yet made it to the load. During any one second period. 133.33 joules/sec of
> forward energy will pass a forward power measurement point. 33.33 joules/sec of
> reflected energy will pass a reflected power measurement point. The energy in
> the forward and reflected waves has been generated by the transmitter as watts,
> not vars. The V*I*cos(0 deg) equals 133.33 joules/sec for forward power.
> The V*I*cos(180 deg) equals 33.33 joules/sec for reflected power.
>

> Are you aware that a transmission line forces certain conditions upon
waves?
> For any single wave, V and I are either in phase or 180 deg out of phase,
> i.e. the cosine of the angle between voltage and current is equal to one,
> V/I=Z0, Power in watts (not vars) = V*I = V^2/Z0 = I^2*Z0.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
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2175. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 23:02:35 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCC428B.4A7A1F61@ieee.org>
Source record: 131714

Roger Halstead wrote:
>
> "CAM" <Cecil.A.Moore@ieee.org> wrote:
> > Roger Halstead wrote:
> > > This is contrary to my experience.
> >
> > You obviously don't have Entergy as your power company.
>
> ?? Roger (K8RI)

I'm pretty sure my 2 S-units of vertical noise comes from the
power lines. My power company is Entergy. There's a transformer
on the power pole in front of my house. It has a ground wire
running down the pole. I cannot even receive a local AM station
with the portable AM receiver anywhere near that wire. My dipole
is relatively unaffected by the noise.
--
cheers, CAM http://www.qsl.net/w5dxp

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2176. Re: Questions on Wire Antennas-Advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 23:10:52 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCC447C.FD67E100@ieee.org>
Source record: 131715

'Doc wrote:
>
> Dennis,
> Because 40 meters will be the second harmonic of
> both antennas, which usually doesn't work out so well.
> The loop will probably 'do' better than the doublet
> since 40 meters would almost be the third harmonic,
> sort of, but I'm guessing.
> 'Doc

Loops are somewhat the opposite of dipoles. A two wavelength
loop is resonant with a decent feedpoint resistance. The
worrisome feedpoint impedances for loops are the odd
half-wavelengths. The even half-wavelengths are pretty
good for loops. That's why horizontal loops work so well
on the harmonic frequencies.
--
cheers, CAM http://www.qsl.net/w5dxp

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2177. Re: What is a good, small 6 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 23:23:12 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <76qdnY1tZZCQ2lGgXTWcoA@comcast.com>
Source record: 131716

Do you want to work SSB or FM? The groundplane is only good for FM - SSB is horizontally polarized. About the smallest thing you would want is a 3 element beam. If you absolutely can't put up a rotator, then a Halo kind of thing. M Squared makes one. I can't recall what they call it, but it is a horizontal loop about 3 feet in diameter. The 6 meter SSB calling frequency is 50.125 MHz, although some people insist it is 50.200. The DX calling frequency is 50.110 MHz. My guess is that less than 10% of 6 meter activity is on FM. 6 meters is a good band when it cooperates. From New Jersey, I have worked almost 100 European grid squares, all SSB.

Tam/WB2TT
"nospam" <xxxmmxxx@xxxspiritone.com> wrote in message
news:3DCC0973.65DDC2F7@xxxspiritone.com...
> Do ground planes for 6 meter work very well?
>
> I never hear anything on that band except a local beacon.
> Using an inv. L for 160 m for antenna.
>
> What are good frequencies to monitor?
>

2178. Re: Where is a datasheet for 1N21E diode ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 23:26:04 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Ut6dnTEk7v8k2lGgXTWcoA@comcast.com>
Source record: 131717

Sylvania was bought by Philips, back in the 80s.

Tam/WB2TT
"en" <engai@sprintmail.com> wrote in message
news:3DCB62CD.87135A26@sprintmail.com...
> I need a datasheet for this microwave diode, sylvania, 1N21E
> thanks
> Ed

2179. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 23:28:46 UTC
From: fantbb@yahoo.com
Message-ID: <c2a65514.0211081528.6a7ecf53@posting.google.com>
Source record: 131718

richardharrison@webtv.net (Richard Harrison) wrote in message news:<8633-3DCA7245-87@storefull-2315.public.lawson.webtv.net>...

> Purpose of elevated radials is capture of the essential displacement
> current between the vertical radiator and its ground return to the
> radio. Any of this current returning through the earth is likely to
> produce loss. Elevated radials tend to hide the earth from this
> displacement current.

Here is a question that I have been wondering about.

What percentages of the total current do elevated radials really carry?
Where is current at that they don't carry? Is it in the ether between the radials or flowing
along/through the ground below?
Do the radials represent a low resistence to RF at a certain height and hence most of the RF takes
the path of least resistance?

73!

Jeff

2180. Longwire impendance matcher

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 23:29:35 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92C0B2DDA889Bmichalkunyahoocom@128.233.3.7>
Source record: 131619

Could anybody tell me what is a longwire impendance matcher and how would it improve shortwave reception?

2181. Re: antenna efficiency ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 23:33:43 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <tmcosukckg0k9qdf3l4egk47op0sjukmcs@4ax.com>
Source record: 131620

On Fri, 08 Nov 2002 00:13:05 -0600, CAM <Cecil.A.Moore@ieee.org>
wrote:

|Henry Kolesnik wrote:
|>
|> I would like to ask the following questions? Assume that you have a mobile
|> with an 8 foot vertical whip with a high Q loading coil near the center that
|> is resonant at 3.9 mHz. Then with a tuner near the antenna you tune for max
|> power. Later you replace the loaded whip with an 8 foot section that has no
|> coil, just a whip. Which one will have the best efficiency and why?
|
|The feedpoint impedance of the loaded antenna will be in the neighborhood
|of 20 ohms resistive. That is easy to match with a tuner. The feedpoint
|impedance of the whip is about 0.5-j2000 ohms. The losses in the tuner
|matching such an impedance would be substantial. I have actually measured
|the difference in efficiency between a center-loaded mobile antenna and
|a whip driven by an SGC-230. The difference was about 12 dB, i.e. the
|center loaded antenna was 16 times more efficient than the whip plus
|autotuner.

Hmmm.

I modeled an eight-foot whip over perfect ground at 3.8 MHz.

1) Without any loading:

Zin ~ 0.4 -j1832

2) With an inductive reactance of 1832 ohm at the feed and assuming an
inductor Q of 200:

Zin ~ 9.6 - j0.6

Ignoring the effects of mismatch the efficiency is 4.0%. This is
basically the ratio of the 0.4 ohm radiation resistance to the ~9.1
ohm resistance of the inductor.

3) With an inductive reactance of 3465 ohm 50% up from the feed and
assuming an inductor Q of 200:

Zin ~ 20.7 + j0.6

Ignoring the effects of mismatch the efficiency is 4.4%. The
efficiency is slightly higher than with base loading because the
current distribution in the section below the inductor is improved but
this is offset to some degree by the higher inductor resistance.

There have been published studies that examined these offsetting parameters and determined that the optimum loading coil location is about 40-60% of the height of the radiator. (Without any top hat loading)

4) Without any loading but using an 'optimum' tuner at the bottom:

Effectively, the base loading inductor is moved inside the tuner and is the series element in an L-network. A 77.56uH inductor with a shunt 1686pF capacitor provides the match. With capacitor Q = 1000 and the same inductor Q = 200, the network loss is 96%, so the efficiency is 4%, nearly the same as before.

What case four proves, if Cecil's numbers are correct, is that the SCG tuner is *very* lossy.

In any case, there is a *very* hi-Q tuning situation; read *very* touchy adjustment procedure.

Of course, all of the foregoing is purely hypothetical since it assumes perfect ground. When the tens of ohms of ground resistance that exist between the vehicle and ground are inserted then the tuning gets easier and the efficiency goes further in the toilet.

2182. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-08 23:33:53 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <vRXy9.8480$w07.1484529@news20.bellglobal.com>
Source record: 131621

"Fred Hambrecht Sr."
> As long as we are making long transmission lines, let's make
> one twenty years long. I transmit 100 watts for 5 years and
> then sell the transmitter and short the end of the transmission line.

Maybe Cecil is just pulling your leg.

2183. Re: What is a good, small 6 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 00:37:20 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <aqhlc2$abj1h$1@ID-52642.news.dfncis.de>
Source record: 131622

Vertically polarized antennas are NOT just for FM on 6m. If you are working locally, (not via ionosphere), then yes, polarization is an issue. But if you are working sporadic E or regular F layer communications, then the polarization is not a significant factor, because the polarization off the ionosphere is relatively random. I have made hundreds of 6m qsos on ssb sporadic E with an R6000 vertical.

To work tropo ducting, tropo scatter, aurora and to a lesser extent meteor scatter, polarization is VERY IMPORTANT. However, if all you are going to do on 6 is sporadic E each season, then a vertical antenna will suffice.

One easy solution for both (if funds/rotors/space are issues)) is to have a ground plane as one antenna and a simple six meter dipole as the other. This eliminates > 20 dB of cross polarization loss in those cases where polarization is important. Aurora requires not only polarization matching, but usually gain/power combo. 100w to a 3 el yagi will work dandy for aurora, but a simple vertical is likely to be very disappointing.

During E season, (May thru June, sporadically) just about ANYTHING works quite well.

If you are going to be really serious about 6 meters, then a 3 el yagi is a minimum as noted by the other poster. If you are just going to dabble, then either a 6 meter dipole or a vertical or both are fine to get your feet wet with.

50.110 and 50.125 are the calling freqs (international/domestic respectively).

Six meters is dead 99% of the time, unless you work troposcatter and meteor scatter/aurora. When E season starts, the band opens nearly every day and sometimes twice a day with VERY big sigs!

Hope this helps, 73

...hasan, N0AN
"Tarmo Tammaru" <t-tammaru@home.com> wrote in message news:76qdnY1tZZCQ2lGgXTWcoA@comcast.com...
> Do you want to work SSB or FM? The groundplane is only good for FM - SSB is
> horizontally polarized. About the smallest thing you would want is a 3
> element beam. If you absolutely can't put up a rotator, then a Halo kind of
> thing. M Squared makes one. I can't recall what they call it, but it is a
> horizontal loop about 3 feet in diameter. The 6 meter SSB calling frequency
> is 50.125 MHz, although some people insist it is 50.200. The DX calling

> frequency is 50.110 MHz. My guess is that less than 10% of 6 meter
activity
> is on FM. 6 meters is a good band when it cooperates. From New Jersey, I
> have worked almost 100 European grid squares, all SSB.
>
> Tam/WB2TT
> "nospam" <xxxmmxxx@xxxspiritone.com> wrote in message
> news:3DCC0973.65DDC2F7@xxxspiritone.com...
> > Do ground planes for 6 meter work very well?
> >
> > I never hear anything on that band except a local beacon.
> > Using an inv. L for 160 m for antenna.
> >
> > What are good frequencies to monitor?
> >
>
>

2184. Re: Slingshots foretting the g5rv wre into the trees

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 00:55:03 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <H1Zy9.120$7d.73579@monger.newsread.com>
Source record: 131623

"walt" <walt_radiators@aol.com> wrote in message
news:3DCA8D80.10117D5E@aol.com...
> here is a nice setup that you can duplicate for under $ 20 from Walmart
> sporting goods dept. (or sell them yourself !)
>
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1392668336&rd=1
>
>

That's a "Wrist Rocket" sling shot. They are illegal in some areas.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)
> walt
>
> Wayne wrote:
>
> > A bit late with this, but here's one that works.
> > I recall a tennis ball cannon, made of several beer/soda cans put
together.
> > Small hole in bottom can.
> > Insert tennis ball, squirt in a bit of lighter fluid/naptha and light.
> > 'Poof!' goes tennis ball.
> > A hunk of steel conduit or similar with a cap on one end, and ball that
> > fits barely snug inside pipe should work similar.
> > Denatured alcohol might also work as a propellant.
> > Be sure to keep face and other exposed flesh away from end of
barrel/tube
> > when firing.
> > A light fishing line should work as starter line.
> >
> > Note, I assume no responsibility for local laws regarding these things,
as
> > laws vary quite a bit.
> > I think I like the arrow idea better...
> >
> > Wayne WA2YNE
> >
> > "Bill M" <"exray"@no spam-caribe.net> wrote in message
> > news:unpnrq45ub8c53@corp.supernews.com...
> > > Brian Kelly wrote:
> > > >
> > >

> > > > I surfed around Google for "potato guns", good Lord, they're a cult.
I
> > > > get the drift, easy enough to build. What do you use for the
> > > > propellant? Looks like a can of ether engine starter oughta do it.
> > >
> > > Most anything in a spray can will work. WD-40 is a favorite.
> > >
> > > -Bill
>

2185. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 00:57:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <usonb8kf292l6f@corp.supernews.com>
Source record: 131624

Richard Harrison wrote:
> . . .
> The point is, where interference may come from is rarely know in
> advance. Directivity may be important. Gain and directivity are almost
> different names for the same thing. The antenna with the most gain has
> the most directivity.
> . . .

Gain and directivity differ only by efficiency, but this can make a major difference. For example, a Beverage antenna, which has low efficiency, has considerable directivity but low gain (compared to an efficient antenna). A vertical with very good ground system has less directivity but more gain than a typical Beverage.

The statement that "the antenna with the most gain has the most directivity" is true only if both antennas have similar efficiency.

Rhombics are typically 50% efficient, so more efficient antennas can have more gain while having less directivity than a rhombic. Conceptually, it's a matter of taking the power that's dissipated in the rhombic's terminating resistor and using it either to increase the gain for the same directivity (same beamwidth), decreasing the directivity (widening the beam) for the same gain, or any combination of the two.

Roy Lewallen, W7EL

2186. Re: antenna efficiency ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 01:47:50 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCC6946.C48434E7@ieee.org>
Source record: 131625

Wes Stewart wrote:
> What case four proves, if Cecil's numbers are correct, is that the SCG
> tuner is *very* lossy.

It uses iron core toroids on 75m - don't know the 'Q'.
--
cheers, CAM http://www.qsl.net/w5dxp

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2187. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 01:49:31 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCC69AB.F702AE60@ieee.org>
Source record: 131626

"J. Harvey" wrote:
>
> "Fred Hambrecht Sr."
> > As long as we are making long transmission lines, let's make
> > one twenty years long. I transmit 100 watts for 5 years and
> > then sell the transmitter and short the end of the transmission line.
>
> Maybe Cecil is just pulling your leg.

I'll have you know that a one second long transmission line won't
even reach to the moon.
--
cheers, CAM http://www.qsl.net/w5dxp

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2188. Re: antenna efficiency ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 02:46:21 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <usoto250h8s839@corp.supernews.com>
Source record: 131627

I used a Heathkit tuner with a roller inductor and don't have the skills to
figure efficiency and that is why I aske dthe question.
"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DCC6946.C48434E7@ieee.org...
> Wes Stewart wrote:
> > What case four proves, if Cecil's numbers are correct, is that the SCG
> > tuner is *very* lossy.
>
> It uses iron core toroids on 75m - don't know the 'Q'.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
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2189. Re: Hustler 4BTV Help Needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 04:01:30 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <uM%y9.83018$dn3.3240651@twister.southeast.rr.com>
Source record: 131628

Hi Dan,

I've got an R-7000 and an 18AVT in the backyard. The manuals for both antennas indicated that you should adjust the antennas for minimum SWR starting with 10m and moving down in frequency until you get to the lowest band (40m or 80m depending on the antenna). readjustment might be the way to improve your figures here.

I'd also rig up a radial system using TV rotator wire. 3 or 4 strand, one line for each band and use 3 or 4 radials.

Good luck,

Bill, W4WNT

"Dan" <n7slc@yahoo.com> wrote in message
news:aq7h3ertm1@terabinaries.xmission.com...
> HI All,
>
> Being fairly new to HF vertical antennas I really didn't know what to
> expect. Due to space limitations, I am unable to install a ground radial
> system. According to the 4BTV manual, satisfactory results can still be
> obtained without the radial system.
>
> Here's the trouble...SWR is very low on 10M,15M, and 40M. However, on
> 20M the SWR is 1:1 at the bottom of the band and climbs to 2:1 at
14.166Mhz.
> At 14.350Mhz, the SWR is off the chart.
>
> Any suggestions?
>
> TIA,
>
> Dan
>
>

2190. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 04:27:15 UTC
From: richardharrison@webtv.net
Message-ID: <17015-3DCC8EA3-386@storefull-2311.public.lawson.webtv.net>
Source record: 131630

Roy Lewallen, W7EL wrote:
"The statement that "The antenna with the most gain has the most directivity" is true only if both antennas have similar efficiency."

Or the most directive is also the more efficient antenna. Dang me! I forgot to say "usually has the most directivity". There are antennas loaded with resistors and/or near the earth which I was not considering at the time.

Roy also wrote:
"Rhombics are typically 50% efficient, so more efficient antennas can have more gain while having less directivity than a rhombic."

True, and a reason we replaced a single rhombic with 3 curtain antennas, each covering a limited frequency range. This exchange was repeated many times. Broadcast power is precious indeed. The power formerly burned in a dissipation line was spread over a target area by a curtain antenna.

For point to point it is hard to justify replacing an effective, convenient, and low-cost antenna with three curtain antennas for a small power gain.

Let`s see. For triple diversity reception, we would need 9 curtains to replace 3 rhombics. For all the simultaneous program channels it`s 9x the number of channels for the number of curtains. We would need a lot of real estate because the TDR`s are a space diversity scheme. The rhombics had 10 wavelength spacings. The receive site rhombics worked like champions almost around the clock for years. Very few problems even when bad guys tried to make mischief.

Best regards, Richard Harrison, KB5WZI

2191. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 04:43:31 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211082043.6c82f1d8@posting.google.com>
Source record: 131629

Bill M <"exray"@no spam-caribe.net> wrote in message
news:<usjsrskij5t95e@corp.supernews.com>...
> Jason Hissong wrote:
> >
> > Hi gang,
> >
> >> Here is my idea.... my back yard is about 75' by 50'. I was
> > considering putting up a 5BTV vertical up at about 10 feet. I would
> > buy some rotator cable to put up 4 radials for each band. (I would
> > have to probably bend the 80M radials to make it fit) With it being
> > 10 feet high, that would keep the radials out of the reach of little
> > hands (and me running into it). I would tie off the radials in four
> > corners using the fence (or just have 4 poles in the ground away from
> > the fence) Anybody have a similar arrangement? How has it performed
> > for you?
>
> Sounds like a very typical installation. But, just how important is it
> that the radials be 'tuned' to each band above what would be considered
> typical lossy ground? I've heard of some different magic lengths in
> such an application. Comments?

Very important if it's elevated. The radials must show a low impedance
to function. If the radials were very mistuned, and say showed a high
impedance, it would nearly be as if they were not there. So you end up
running a whip, and your coax as the antenna. You don't want your coax
to be part of the antenna. So for a multiband antenna, you need
resonant radials for each band. At least one per band is the minimum.
But I don't consider one radial to be much of a ground plane. More of
a dipole with one leg sticking straight up..
> >
> > Also, if I used a vertical dipole instead, (like the Eagle DX) would
> > radials improve the performance of the vertical dipole? I have a
> > friend that is willing to sell me his for about 50% of the new price.
>
> I don't know the particular antenna but if it is a true dipole it
> shouldn't need radials to perform. That leads to the question....what
> is the effect of good ground versus lossy ground underneath such a
> vertical dipole?

It improves with the better ground. But only low 1/2 waves are
drastically effected. Once at least about 1/4 wave up, a 1/2 wave is
in fairly good shape as far as ground losses. Once a half wave up, it
quite efficient. But a ground mounted 1/2 wave is subject to losses
just like any other vertical. It's less than the 1/4 would show, but
it's still there. If you look at a commercial 1/2 wave on MW, they run

a system of 1/2 wave radials usually.

> Would "good" ground
> underneath actually impair this antenna for low angle radiation?

Would improve low angle performance.
>
> Now that my curiosity is piqued....picture this situation....7 MHz 1/4
> wave vertical antenna, 20 feet up with 3-4 radials. Below that set of
> radials, say 10 feet below, another set of 3-4 radials. Any advantage
> here by having the second set?

Depends on the band used, but overall, no. If you are running an elevated vertical, it doesn't make sense to waste radials at a lower height than the antenna. They are more effective per radial at the higher heights as the ground losses are less for one thing. Also, radials at lengths under the antenna could quite likely act as feedline decoupling radials, more than ground loss radials, although I guess in reality they would be doing both jobs. But those would usually be a 1/4 wave down, not 10 ft on 40m band. At 20 ft," just over 1/8 wave" your 4 radials will be equal to maybe 10 or so on a ground mount. Thats not going to be a barn burner...:(If you added the 4 radials at the antenna for 8 total, at least you are doubling to an appx 20 radial if ground mounted level. If you added them 10 ft below, on a 40m antenna , they would be fairly useless. At that length from the feedpoint on 40m, they won't really function very well at all.
MK

2192. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 04:55:15 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <usp59kkk9jsr60@corp.supernews.com>
Source record: 131631

And a 20 year one won't reach Alpha centuri

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DCC69AB.F702AE60@ieee.org...
> "J. Harvey" wrote:
> >
> > "Fred Hambrecht Sr."
> > > As long as we are making long transmission lines, let's make
> > > one twenty years long. I transmit 100 watts for 5 years and
> > > then sell the transmitter and short the end of the transmission line.
> >
> > Maybe Cecil is just pulling your leg.
>
> I'll have you know that a one second long transmission line won't
> even reach to the moon.
> --
> cheers, CAM http://www.qsl.net/w5dxp
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2193. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 05:49:38 UTC
From: richardharrison@webtv.net
Message-ID: <6016-3DCCA1F2-142@storefull-2318.public.lawson.webtv.net>
Source record: 131633

Jeff wrote:
"What percentage of the total current do elevated radials really carry?"

That depends on their number, length, height above ground, etc. The aim is usually 100% of the displacement current which is nearly all the current fed to a radiator.

If you have an elevated dipole, you want nearly all displacement current to be between the halves of the dipole. In an unbalanced antenna, the displacement current is between the salient radiator and its ground return. A ground return may be a car body, counterpoise, ground-plane, earth radials, etc.

The earth is lossy, and if radials don`t succeed in intercepting the displacement current, it flows in the earth on its way to complete the antenna circuit. Skin effect determines penetration depth in the soil and this is a function of soil impedance. The higher the impedance, the deeper the current flows, Formulas are found in many texts, but current flow below the surface is undesirable if it replaces flow in a radial. Current flow is much less lossy in the radials. Broadcasters get almost 100% efficiency capturing displacement current with 120 radials of only 1/4-wavelength (as it would be in free-space). At the earth`s surface, 1/4-wave radials are actually significantly longer than 1/4-wave because the earth slows wave propagation.

Elevated radials capture displacement current because they are closer to the radiator and elevation makes them a more attractive target for capacitive flux. Elevated radials also tend to block access of the displacement current between earth and the radiator.

The space between earth surface radials probably gets as much or more direct displacement current, but this current has to travel only a short distance to a radial which carries most of the current due to its high conductance.

Best regards, Richard Harrison, KB5WZI

2194. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 05:54:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <usp8pipe1vih4b@corp.supernews.com>
Source record: 131632

Just goes ta show ya -- the most directive antenna isn't always the best choice, the highest gain antenna isn't always the best choice, and the most efficient antenna isn't always the best choice. Like when choosing nearly anything, it depends on the application.

Roy Lewallen, W7EL

Richard Harrison wrote:
> . . .
> True, and a reason we replaced a single rhombic with 3 curtain antennas,
> each covering a limited frequency range. This exchange was repeated many
> times. Broadcast power is precious indeed. The power formerly burned in
> a dissipation line was spread over a target area by a curtain antenna.
>
> For point to point it is hard to justify replacing an effective,
> convenient, and low-cost antenna with three curtain antennas for a small
> power gain.
>
> Let`s see. For triple diversity reception, we would need 9 curtains to
> replace 3 rhombics. For all the simultaneous program channels it`s 9x
> the number of channels for the number of curtains. We would need a lot
> of real estate because the TDR`s are a space diversity scheme. The
> rhombics had 10 wavelength spacings. The receive site rhombics worked
> like champions almost around the clock for years. Very few problems even
> when bad guys tried to make mischief.
>
> Best regards, Richard Harrison, KB5WZI
>

2195. Re: "intenna"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 07:22:12 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <9udpsu0vfmqrmcquqfitr3imo28o88nmng@4ax.com>
Source record: 131634

On Fri, 1 Nov 2002 17:41:40 -0700, "Wesser" <wesser@hiwaay.net> wrote:

>I am looking for an" intenna", or info on building another one like it.
> it is a small metal box which has a tuning unit inside it. the box is about
>3 inches by 1.5 by 1.5 in.
>this is coax fed, then a very small diameter wire "antenna",about 3 to 4
>feet long, if my memory serves me correctly, which you stick ,tape,glue, to
>inside of a car window. thanks for the help
> Carl / dee
> Alabama,U.S.A.
>##
>

If it's this company <http://www.intenna.se/> they don't seem to have
a product as you describe.

Another link here to an "Intenna".
http://www.antennaperformance.com/products2.asp?ProductID=45&CategoryID=1

2196. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 08:26:25 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <RE3z9.139$7d.87867@monger.newsread.com>
Source record: 131635

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DCC428B.4A7A1F61@ieee.org...
> Roger Halstead wrote:
> >
> > "CAM" <Cecil.A.Moore@ieee.org> wrote:
> > > Roger Halstead wrote:
> > > > This is contrary to my experience.
> > >
> > > You obviously don't have Entergy as your power company.
> >
> > ?? Roger (K8RI)
>
> I'm pretty sure my 2 S-units of vertical noise comes from the
> power lines. My power company is Entergy. There's a transformer
> on the power pole in front of my house. It has a ground wire
> running down the pole. I cannot even receive a local AM station
> with the portable AM receiver anywhere near that wire. My dipole
> is relatively unaffected by the noise.

If you can trace the noise to their equipment the FCC says they are supposed to fix it.

There is a noise here that comes and goes. It appears to be on all bands and my show up virtually any time day or night...although it's more often at night. The noise *might* be from a high tension transmission line about a half mile away. I say might as it really doesn't fit the profile. True it is a series of closely spaced pulses that are about S2 on 6-meters and S-6 on 20 meters tonight..er this morning. That is with the noise blanker off. With it on they don't show on 6 and run about S-2 on 20.

The noise tonight on 6-meters sounds almost like precipitation static, while 20 ismore of a rushing sound.

I may go a week and never hear any of the noise on 6. I don't hear it all that often on 20. Then I may hear it for 3 or 4 days in a row. I don't have any verticals here (at this site), except for 144 and 440.

73
--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)

> --
> cheers, CAM http://www.qsl.net/w5dxp
>

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2197. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 08:36:25 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <dO3z9.140$7d.88122@monger.newsread.com>
Source record: 131636

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:uso9ov2b01tb27@corp.supernews.com...
> After some thought, I can't think of any good reason not to ground the
> water system. What are the negative ramifications you're referring to?
>
> Obviously the water system shouldn't be used to provide the ground
> connection if it's plastic, but assuming that your power system is
> otherwise properly grounded, what's the harm in connecting the water
> pipes (or any other metallic objects) to ground?

Under normal circumstances, I can't think of a thing.

It's that otherwise in there<:-))
If for some reason the station ground should become disconnected, your
electrical system is now connected to the water system and under some
conditions put a healthy voltage onto the water lines. One guy was darn
near electrocuted in a small town NW of here when he disconnected the water
system which had the electrical system tied to it. In his case there was no
other ground. When he went to put the two connectors back together the
ground went right through him. Luck had it that he fell and broke contact.
>
However bearing thta in mind with a metal water system, there are supposed
to be *two* 8 foot ground rods, 6 feet apart, connected to the ground just
outside (on a 200 amp service). If the soil dries out the the water system
can become the sole ground. This is not bad as it's serving its purpose.
It's just a "potential" danger for the unsuspecting.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S/N CD-2)
> Roy Lewallen, W7EL
>
> Roger Halstead wrote:
> >
> > BE VERY CAREFUL ABOUT GROUNDING to a WATER SYSTEM!
> > Make *certain* the water system is really grounded. Many new water
systems
> > may be metal on the inside of the house, but the connection between the
> > house and main is likely to be plastic. The same is true of gas lines.
> >
> > I just rewired the house, had the feed changed from overhead to
underground
> > and the service from an old 60 Amp split buss to a 200 Amp with a
secondary

> > feed from the 9KW generator through a 60 Amp box/transfer switch.
> >
> > The inspector like the instalation, and the only changes he wanted to
see
> > were the grounding added to the gas line and to the water line. He said
the
> > national code required both. I pointed out that although both were metal
> > inside the house they were both plastic outside. He said no, the water
line
> > coming in had to be metal. I got out the flashlight, and showed him the
end
> > of the plastic water line coming in and fastening to the *brass* valves
and
> > metering. I left the gas line grounded (it's supposed to have a small
> > static ground molded in), but we both decided that with a plastic water
> > main, the house was far safer without grounding the electrical system to
an
> > ungrounded water system.
> >
> > Stop and think about the ramifications of grounding to your house water
> > system when it is not grounded.
> >
> >
> > --
> > Roger Halstead (K8RI EN73)
> > www.rogerhalstead.com
> > N833R World's oldest Debonair? (S# CD-2)
> >
> >>
> >>"Owen Duffy" <owen@oda.com.au> wrote in message
> >>news:3D7979CC.7D966BFF@oda.com.au...
> >>
> >>>
> >>>N4LQ wrote:
> >>>
> >>>>I cut the main water pipe to install a whole house filter. The filter
> >>>
> > is
> >
> >>>>plastic and came with a jumper wire to complete the electrical bypass.
> >>>
> >>Since
> >>
> >>>>I use this pipe for my ground, I was curious if it really worked or if
> >>>>plastic was used to the street main. So before installing the wire, I
> >>>
> >>>There have been cases of electrocution in this area where plumbers have
> >>>removed the water meter and so broken the metallic connection. (The
> >>>electrical supply distribution scheme is MEN.) I suspect that the cases
> >>>of serious electrocution were probably under fault conditions, but I

> >>>recall that the documentation from the supply authoritiy suggested that
> >>>the 'residual' currents measured could be dangerous to people with a
> >>>weak ticker. In any case, they mandate a procedure of electrically
> >>>shunting the intended pipe break before opening the pipe connection.
> >>>
> >>>Owen
> >>
> >>
> > >
> > >
>

2198. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 09:04:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uspjss1i7tq91c@corp.supernews.com>
Source record: 131637

If the system electrical ground gets disconnected from the Earth, all your metal appliances, electric stove, metal outlet boxes, service box, computer, ham rig, and everything else having a three wire plug could be dangerous. So you could apply the same argument for not connecting them to ground that you can for not connecting the water pipes. Sorry, I don't think it's a good argument. I connect everything conductive in my house that I can to the system ground -- and make sure my Earth connection is up to code. If the code doesn't provide an adequate ground when the soil dries out, you should supplement it -- and bring it to the attention of your state's electrical board -- not start disconnecting things from the ground system in the hope that it'll reduce the danger.

Roy Lewallen, W7EL

Roger Halstead wrote:
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:uso9ov2b01tb27@corp.supernews.com...
>
>>After some thought, I can't think of any good reason not to ground the
>>water system. What are the negative ramifications you're referring to?
>>
>>Obviously the water system shouldn't be used to provide the ground
>>connection if it's plastic, but assuming that your power system is
>>otherwise properly grounded, what's the harm in connecting the water
>>pipes (or any other metallic objects) to ground?
>
>
> Under normal circumstances, I can't think of a thing.
>
> It's that otherwise in there<:-))
> If for some reason the station ground should become disconnected, your
> electrical system is now connected to the water system and under some
> conditions put a healthy voltage onto the water lines. One guy was darn
> near electrocuted in a small town NW of here when he disconnected the water
> system which had the electrical system tied to it. In his case there was no
> other ground. When he went to put the two connectors back together the
> ground went right through him. Luck had it that he fell and broke contact.
>
> However bearing thta in mind with a metal water system, there are supposed
> to be *two* 8 foot ground rods, 6 feet apart, connected to the ground just
> outside (on a 200 amp service). If the soil dries out the the water system
> can become the sole ground. This is not bad as it's serving its purpose.
> It's just a "potential" danger for the unsuspecting.
>
>

> --
> Roger Halstead (K8RI EN73)
> www.rogerhalstead.com
> N833R World's oldest Debonair? (S/N CD-2)

2199. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 11:17:04 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <ee7helFw6Oz9EAH1@ifwtech.co.uk>
Source record: 131638

Richard Harrison wrote:
>Jeff wrote:
>"What percentage of the total current do elevated radials really
>carry?"
>
>That depends on their number, length, height above ground, etc. The aim
>is usually 100% of the displacement current which is nearly all the
>current fed to a radiator.
>
At the feedpoint, where all the radials join, the answer is exactly 100%. The current in the vertical is exactly equal to the sum of all the currents in the radials - the vector sum, that is, because the radial currents are unlikely to be all exactly in phase. (If the feedline surface current is not adequately choked off, then the feedline becomes another unintended radial, and so that current adds to the total.)

That percentage summation of currents at the feedpoint is exact - and it's just about the only thing that does *not* change with radial configuration. What varies with the configuration of the radials is the effective *resistance* through which those radial currents flow to arrive back at the feedpoint... and therefore the total current.

In the ideal situation where the radials are very long and very densely packed, they completely shield the earth below. The field from the vertical induces currents in your lossless ground screen, but no field penetrates through it, so no currents are induced in the lossy dirt. In the practical situation, some of the field from the vertical 'leaks' between the radials and induces circulating currents in the earth. But electromagnetic induction always works in both directions - the circulating earth currents also induce currents back into the radials. This makes the radial currents different from what they would be if the earth wasn't there.

This two-way EM induction also means that the earth *resistance* is coupled back into the radials. It's as if each radial acts as the primary of a transformer, whose secondary is loaded with resistance. The radials themselves have next-to-zero resistance, but the coupling makes them behave as if they have resistive losses.

The overall effect of a lossy ground system is well known: less current flows (for the same driving EMF) so the feedpoint impedance rises. The ideal lower limit is the radiation resistance of the antenna; the extra ohms in a practical installation are the effects of the distributed earth losses.

All these interactions affect the overall behavior of the antenna: the total current, the feedpoint impedance, the shape and size of the current profiles on the vertical and on each radial, and the percentage of the RF energy lost in heating the dirt. Those are the things that change with radial configuration.

But the percentage of the total antenna current that the radials return to the feedpoint is always 100%.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

2200. Re: Longwire impendance matcher

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 12:08:36 UTC
From: "Wolfgang K. Meister" <wolfgang_m@hotmail.com>
Message-ID: <9kupsuc80nogv97g94pv476o03dic3233t@4ax.com>
Source record: 131639

On 8 Nov 2002 23:29:35 GMT, Michalkun <no.spam@nospam.com> wrote:

>Could anybody tell me what is a longwire impendance matcher and how would
>it improve shortwave reception?

a 1:9 or 1:16 balun that will step down the high impedance of a long
wire. Some say they need this some say it is not important at all.

73's Wolfgang OE1MWW

2201. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 12:23:37 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCCFE49.134F3DC8@ieee.org>
Source record: 131640

Roy Lewallen wrote:
> Just goes ta show ya --

Hey Roy, I heard on the weather channel that, because of
El Nin~o, you area will have a dry winter. That means you
can switch to ladder-line. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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2202. Re: Efficiency of elevated verticals?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 12:29:12 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCCFF98.9624BAA7@ieee.org>
Source record: 131641

Roger Halstead wrote:
> If you can trace the noise to their equipment the FCC says they are supposed
> to fix it.

Fixing all the power line noise in Madisonville, TX would bankrupt the
power company. There are hundreds of locations where the power line
noise drowns out the local AM station. Again, my horizontal dipole is
relatively immune to that noise. One of these days, I will rotate my
20m rotatable dipole into the vertical plane and measure the difference.
--
cheers, CAM http://www.qsl.net/w5dxp

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2203. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 12:33:22 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCD0092.B2714843@ieee.org>
Source record: 131642

Richard Clark wrote:
>
> On Sun, 03 Nov 2002 23:29:00 -0600, CAM <Cecil.A.Moore@ieee.org>
> wrote:
>
> >I recently had an email interchange with someone associated with QEX
> >who believes reflected power cannot be extracted from a transmission
> >line. This is obviously an old wive's tale.
>
> Was this "someone" the janitor's wife?

All I can say is be patient for a couple of months.
--
cheers, CAM http://www.qsl.net/w5dxp

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2204. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 14:13:19 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <%J8z9.10283$EY2.1826925@news20.bellglobal.com>
Source record: 131643

CAM stated the obvious (thanks...):
> I'll have you know that a one second long
> transmission line won't even reach to the moon.

"Fred Hambrecht Sr." got it wrong
> And a 20 year one won't reach Alpha centuri

If the Vf was 100%, then a 20-year long cable would reach there and back 2.5 times. Alpha Centuri is about 4 light years distant.

If the Vf was 80%, then it would reach there and back only twice. If the Vf was very very close to 0%, then you could keep the cable in your pocket.

2205. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 14:15:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <usq64765nig151@corp.supernews.com>
Source record: 131644

You just don't have a clue what "dry winter" means here, do you?

Roy Lewallen, W7EL

CAM wrote:
> Roy Lewallen wrote:
>
>>Just goes ta show ya --
>
>
> Hey Roy, I heard on the weather channel that, because of
> El Nin~o, you area will have a dry winter. That means you
> can switch to ladder-line. :-)

2206. Re: Longwire impendance matcher

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 14:57:18 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aqj7oe$a56$1@sparta.btinternet.com>
Source record: 131645

When a 'longwire' is an odd number of 1/4-wavelengths long its input impedance is very low. So the balun makes things worse.

It also makes the balun manufacturer and salesman very happy.

If the receiver does not have one built in, the money would be better spent on a pre-selector.

2207. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 15:08:50 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCD2502.3CB48CCF@ieee.org>
Source record: 131646

"J. Harvey" wrote:
> If the Vf was 80%, then it would reach there and back only twice. If the Vf
> was very very close to 0%, then you could keep the cable in your pocket.

Hmmmm, if a piece of coax were traveling at the speed of light,
what would be its VF?
--
cheers, CAM http://www.qsl.net/w5dxp

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2208. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 15:39:37 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <pj9qsucep6dmifb2jd6q1rrftn0nih0pcb@4ax.com>
Source record: 131647

On Sat, 09 Nov 2002 08:36:25 GMT, "Roger Halstead" <rdhalste@tm.net>
wrote:

|
|"Roy Lewallen" <w7el@eznec.com> wrote in message
|news:uso9ov2b01tb27@corp.supernews.com...
|> After some thought, I can't think of any good reason not to ground the
|> water system. What are the negative ramifications you're referring to?
|>
|> Obviously the water system shouldn't be used to provide the ground
|> connection if it's plastic, but assuming that your power system is
|> otherwise properly grounded, what's the harm in connecting the water
|> pipes (or any other metallic objects) to ground?
|
|Under normal circumstances, I can't think of a thing.
|
|It's that otherwise in there<:-))
|If for some reason the station ground should become disconnected, your
|electrical system is now connected to the water system and under some
|conditions put a healthy voltage onto the water lines. One guy was darn
|near electrocuted in a small town NW of here when he disconnected the water
|system which had the electrical system tied to it. In his case there was no
|other ground. When he went to put the two connectors back together the
|ground went right through him. Luck had it that he fell and broke contact.

The National Electrical Code (1981) states:

"250-80 Bonding of Piping Systems.

(a) Metal Water Piping. The interior metal water piping system shall
always be bonded to the service equipment enclosure, the grounded
conductor at the service, the grounding electrode where of sufficient
size, or to the one or more grounding electrodes used...."

In the case of the well, the code also requires a supplemental
grounding electrode to prevent the very occurrence you provide as an
example.

|>
|However bearing thta in mind with a metal water system, there are supposed
|to be *two* 8 foot ground rods, 6 feet apart, connected to the ground just
|outside (on a 200 amp service). If the soil dries out the the water system
|can become the sole ground. This is not bad as it's serving its purpose.
|It's just a "potential" danger for the unsuspecting.

The point of bonding and grounding is to have every metallic object that a person might contact be at the same potential as the earth he is standing on.

2209. WTB: Open wire spreaders

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 16:16:28 UTC
From: k9sqg@aol.com
Message-ID: <20021109111628.03871.00000026@mb-cm.aol.com>
Source record: 131648

Anybody know of a source of open wire spreaders that still sells them at a cost of under $3 each? 2" and 4" are preferred.

Thanks.

Evan

2210. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 16:27:40 UTC
From: tdonaly@aol.com
Message-ID: <20021109112740.25865.00005625@mb-fc.aol.com>
Source record: 131649

CAM wrote,
>
>Hmmmm, if a piece of coax were traveling at the speed of light,
>what would be its VF?
>--
>cheers, CAM

A piece of coax isn't supposed to be able to travel at the speed of
light.
73
Tom Donaly, KA6RUH

2211. KT34A

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 16:35:49 UTC
From: Jerry France <grf@uneedspeed.net>
Message-ID: <3DCD3965.3050308@uneedspeed.net>
Source record: 131650

Assuming reasonable wear, is $200 a reasonable price for a KT-34A? How
do you think it would compare to my very old A4? Tnx
Jerry France
K7LY

2212. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 17:06:05 UTC
From: fractenna@aol.com
Message-ID: <20021109120605.19680.00000008@mb-df.aol.com>
Source record: 131651

>richardharrison@webtv.net (Richard Harrison) wrote in message
>news:<8633-3DCA7245-87@storefull-2315.public.lawson.webtv.net>...
>
>> Purpose of elevated radials is capture of the essential displacement
>> current between the vertical radiator and its ground return to the
>> radio. Any of this current returning through the earth is likely to
>> produce loss. Elevated radials tend to hide the earth from this
>> displacement current.
>
>Here is a question that I have been wondering about.
>
>What percentages of the total current do elevated radials really
>carry?

Approximately 1/2 to first order.

>Where is current at that they don't carry?
Is it in the ether between
>the radials or flowing
>along/through the ground below?

It is in the rest of the antenna, eaten up (to be a bit simplistic) as
radiation resistance or ohmic loss.

>Do the radials represent a low resistence to RF at a certain height
>and hence most of the RF takes
>the path of least resistance?
>

They represent a counterpoise. They most certainly radiate--but that radiation
typically cancels in the far field.

73,
Chip N1IR

2213. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 17:23:52 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCD44A8.40E93521@ieee.org>
Source record: 131652

Tdonaly wrote:
>
> CAM wrote,
> >Hmmmm, if a piece of coax were traveling at the speed of light,
> >what would be its VF?
>
> A piece of coax isn't supposed to be able to travel at the speed of
> light.

Nitpicker! What's the VF of a piece of coax traveling at 99.999999999%
of the speed of light?
--
cheers, CAM http://www.qsl.net/w5dxp

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2214. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 17:25:20 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCD4500.4F5F39AA@ieee.org>
Source record: 131653

Fractenna wrote:
>
> >richardharrison@webtv.net (Richard Harrison) wrote:
> >What percentages of the total current do elevated radials really
> >carry?
>
> Approximately 1/2 to first order.

How much if you order a second one? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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2215. Re: KT34A

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 17:58:32 UTC
From: Bill M <exray@no>
Message-ID: <usqj0ila623f7a@corp.supernews.com>
Source record: 131654

Jerry France wrote:
>
> Assuming reasonable wear, is $200 a reasonable price for a KT-34A? How
> do you think it would compare to my very old A4? Tnx
> Jerry France
> K7LY

I had one years ago replacing a 2-el quad. I thought it performed well
but not overwhelmingly well. The broad bandwidth was nice for my solid
state rig.
As for price, I have no idea of the going prices these days but it seems
certainly worth $200. Expect to replace some of the plastic pieces...as
I recall, the earliest ones used some pieces that deteriorated quite
rapidly.

-Bill WX4A

2216. Re: What is a good, small 6 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 18:28:15 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <BbmdnYGgK8H3zlCgXTWcpg@comcast.com>
Source record: 131655

More important than the antenna is listening at the right time. I knew somebody who listened for DX every night. He never heard any, because it never comes in at night. Right now, until about the end of the year, there is a chance of F layer DX between about 8AM and noon local time toward the East and South; afternoons towards the West. Next summer, and also early January, sporadic E could happen any time of day. Sporadic E is usually good for 800 - 1200 miles. Very rarely as short as 500. You will work people for sure if you get on 6 during the January VHF contest. It runs from Saturday afternoon until Sunday night, usually the weekend before the Super Bowl. Check QST or the ARRL web site for date and time about a month from now. What you need for the contest is to know what your grid square is.

Tam/WB2TT GRID FN20
"nospam" <xxxmmxxx@xxxspiritone.com> wrote in message
news:3DCC0973.65DDC2F7@xxxspiritone.com...
> Do ground planes for 6 meter work very well?
>
> I never hear anything on that band except a local beacon.
> Using an inv. L for 160 m for antenna.
>
> What are good frequencies to monitor?
>

2217. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 19:01:41 UTC
From: Bob Cameron <bob.cameron.remove@optusnet.com.au>
Message-ID: <l2mjqa.cv7.ln@p400bob.lse.com.au>
Source record: 131660

Gordon Couger wrote:

> I have 3 antenna designs that work and have been range tested side by side
> with commercial products using corn field ranges and they pass a reality
> check and I need to know what patristic to use for the center insulator in
> dipoles (low voltage, high current) and traps where the voltage and loss
> are more critical. UV and weathering are also an important consideration.

Fibreglass might be another possibility? Although not a centre insulator situation I use pultruded rod for Quad spiders.

Cheers, Bob VK2YQA

2218. Re: Longwire impendance matcher

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 19:12:55 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <X6dz9.59947$sP2.20244@sccrnsc02>
Source record: 131656

Yes, that is why most receivers have one built into their high impedance
antenna input. The manufacturers put it there to degrade performance.
"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:aqj7oe$a56$1@sparta.btinternet.com...
> When a 'longwire' is an odd number of 1/4-wavelengths long its input
> impedance is very low. So the balun makes things worse.
>
> It also makes the balun manufacturer and salesman very happy.
>
>

2219. Re: Open wire spreaders

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 19:34:25 UTC
From: Joe O <jenjoeo@zianet.com>
Message-ID: <3dcd63fa.0@oracle.zianet.com>
Source record: 131657

I used plastic egg insulators used for electric fenses.. They are cheap
and have parallel paths about an inch apart. I fixed the insulator to one
feedline wire with a short piece of 22 AWG that is soldered above and below
the insulator. The other feedline wire floats and is held tight by tension
at the end of the open wire feedline. My 480 ft loop and feedline is one
continous 600 ft length of harddrawn stranded copper.

Enjoy the benefits of open wire feedlines !!

Joe O, KI5FJ

"K9SQG" <k9sqg@aol.com> wrote in message
news:20021109111628.03871.00000026@mb-cm.aol.com...
> Anybody know of a source of open wire spreaders that still sells them at a
cost
> of under $3 each? 2" and 4" are preferred.
>
> Thanks.
>
> Evan

2220. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 19:34:38 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <erdz9.9851$Yf1.1681263@news20.bellglobal.com>
Source record: 131658

"CAM"
> Nitpicker! What's the VF of a piece of coax traveling
> at 99.999999999% of the speed of light?

You'll have to ask Einstein - that's his speciality ('Riding on a lightbeam' and all that). If I had to take a guess, I would say that the Vf would depend on your point of view (frame of reference). One might say that it is 'relative'.

2221. antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 20:23:43 UTC
From: carkenord@juno.com
Message-ID: <4346b55e.0211091223.42e9b3e@posting.google.com>
Source record: 131659

I have a military GDO...the AN/PRM-10. I also have a Millen 90651 dipper. I am somewhat familiar with the useage of these units.

I need to fine-tune (for resonance) a 20M meter delta loop antenna......desired resonance of 14.225 Mhz...and I want to do the fine tuning with the antenna in its final place _UP_ in the air. When the antenna is up in the air, I cannot access _ANY_ of it for "dipping".

I REALLY want to see the resonant freq of this antenna.

I understand that I can attach a 14.225 Mhz half-wave of 50 ohm coax to the antenna feedpoint, short the OTHER end of the coax with a small single turn loop, and couple the GDO to that loop, and tune the GDO for a dip.

Ok.....here is my question.......... Lets say that I don't have a piece of 50 ohm coax cut to a halfwave at 14.225 Mhz.

Lets say that I have some 50 ohm coax, and lets say that I have used the GDO to determine the "velocity factor" of that coax. I have also measured the physical length of this coax......it's NOT a half-wave, and its not a multiple of a half wave at 14.225 Mhz.

Is there some math, or better yet.......a simple computer program.....that would allow me to get the "TRUE" resonant freq of the delta using the piece of coax I just described?

In other words.......I hook the "non-half wave" of coax to the antenna, waaaay up in the air, and I couple to, and dip...... the other end of this coax. I take the "dip" freq, the velocity factor, and the physical lenghth.....and enter those 3 facts into a computer program.........the program tells me the "TRUE" resonant freq of the antenna.

Izzat possible? If yes.....where can I obtain the computer program......or the necessary math........?? URL's....?? Websites??

I know NOTHING of Smith charts.

Thank you...... Lee Carkenord KA0FPJ

2222. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 20:59:27 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dcd7733$0$86532$ba620e4c@news.skynet.be>
Source record: 131661

Half wave coax is not necessary to find a dip at the antenna. Just try, the frequency will be OK ... even you don't know about Smith's diagrams.

73 de ON5MJ - Jacques.

2223. Re: Double Bazooka

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 21:01:56 UTC
From: "H. Adam Stevens" <solo@totalaccess.net>
Message-ID: <usqtvijg0b1i46@corp.supernews.com>
Source record: 131663

Now that I have read all sorts of stuff I thought the group might actually like to see some VSWR data:
I have double bazookas on 160, 80 and 40. They radiate as well as a dipole. I have built and compared both.
All three antennas are constructed with RG8X 1/2 wavelength long with the shield split and fed at the center.
The ends are shorted with wire added such that the coax resonance and the antenna resonance exactly coincide.
The "exactly coincide" is very important. I built several copies and bought an MFJ analyzer before I got it right.
Antenna heights vary from 30 feet above ground for the 40 meters to 50 feet or so on 160.

160 meters:
KHz VSWR
1800 1.5:1
1870 - 1940 1:1 70KHz of 1:1 SWR
1900 3:1

80 meters
KHz VSWR
3500 2.6:1
3700 2.0:1
3790 1.5:1
3870 - 3950 1:1 80 KHz of 1:1 SWR
4000 1.2:1

40 meters
KHz VSWR
7000 - 7300 1:1 300+ KHz of 1:1 SWR

These are measurements I made while sitting here typing this post.
If you don't believe me come measure 'em your self. ;^)
73
H.
NQ5H

"K6ZSR" <k6zsr@cox.net> wrote in message
news:BeHx9.76350$C53.4303962@news2.west.cox.net...
> Thanks to all for your inputs regarding the Double Bazooka.
>
snip

2224. Re: Open wire spreaders

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 21:02:34 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dcd77ec$0$86543$ba620e4c@news.skynet.be>
Source record: 131662

I have used PVC electric tube cuts and ... tree straps (gardening shops).
Cost peanuts and work well.

73 de ON5MJ- Jacques

2225. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 22:21:00 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aqk1obaor2@helle.btinternet.com>
Source record: 131664

May I suggest you don't want to know what the resonant frequency of the antenna is all by its lonesome self. It is never exactly what you expect it to be even if you can do the trick. Just erect the antenna to conform to the simple calculated dimensions or to the dimensions you are copying from somewhere or somebody else.

The really USEFULL thing you want to know is the resonant frequency of the WHOLE SYSTEM as seen when looking into the transmitter end of the feedline.

Assuming you have an S-meter, just sweep the transmitter over the frequency band, and more if you can manage it, and watch the S-meter.

Resonance occurs at the frequency where the S-meter has a reasonably sharp minimum value. It doesn't matter at all what the minimum SWR meter reading actually is. (There may be screams of anguish in the background!)

Having found what the resonant frequency is you can mess about with things until it's in the part of the band you are interested in. Then try messing about until the SWR reading is what you would like to see.

Always include changing the length of the feedline with the messing about.

Try not to be disappointed if you can't get it down to 1-to-1 without a tuner. Nobody else ever manages that anyway.

(Antenna tuning with a dip-oscillator is seldom successful, firstly because of the difficulty of coupling the oscillator to a low-Q antenna and secondly because the coupling arrangements inevitably de-tune the thing you are trying to tune. It's the cursed laws of nature. The ideal instrument is one of these new-fangled, hand-held, antenna analysers before the battery goes flat. Even then you have to climb the mast which worries the XYL and the kids.)

Reg, G4FGQ

2226. Re: Longwire impendance matcher

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 22:21:01 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aqk1odaor3@helle.btinternet.com>
Source record: 131665

I wonder how many balun manufacturers, salesmen and dealers frequent this newsgroup ? I've never seen one admit to it and present a defense.

2227. TA-33 dimensions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 22:41:24 UTC
From: pho <pho@crocker.com>
Message-ID: <3DCD8F14.6040303@crocker.com>
Source record: 131666

Can anyone supply the dimensions for the element length & spacing for
the TA-33 Sr antenna?
Thanks Pete N1AGV

2228. wtb: kt36xa,x-9 or th11

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 23:04:36 UTC
From: lemwnash@aol.com
Message-ID: <20021109180436.10760.00003610@mb-mh.aol.com>
Source record: 131667

want nib

kh6lem

2229. Re: Open wire spreaders

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 23:25:25 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aqk5h4$h5c$1@helle.btinternet.com>
Source record: 131668

Obtain some 5/16" wood dowels. Dry them thoroughly and then soak them in hot candle fat. Or just in ship's clear varnish.

There's not much point in cutting them longer than 1" or 2". They don't catch the wind so much. Use 16 or 14 gauge anamelled wire for very low loss. The Zo impedance matters very little.

Reg. G4FGQ

--
==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========
"K9SQG" <k9sqg@aol.com> wrote in message
news:20021109111628.03871.00000026@mb-cm.aol.com...
> Anybody know of a source of open wire spreaders that still sells them at a
cost
> of under $3 each? 2" and 4" are preferred.
>
> Thanks.
>
> Evan

2230. Re: Longwire impendance matcher

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 23:38:37 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <KJvNPcV0YCpCjI=xa5Ncvb0y2OP6@4ax.com>
Source record: 131569

Michalkun <no.spam@nospam.com> wrote:

>Could anybody tell me what is a longwire impendance matcher and how would
>it improve shortwave reception?

Look on the back of your shortwave receiver. If you have a low impedance antenna connnection (usually a coax connector), and a high impedance connector (a terminal where you can stick a piece of wire), you are ready to go. Attach your long wire antenna (which may have a high impedance) to your high impedance connector.

If you have only a coax connector, you may or may not need the balun. Supposedly, the balun would transform the high impedance of the long wire to the low impedance of the coax connection.

So, what's on the back of your radio? We can give you better advice, knowing that.

Bob
k5qwg

2231. Re: WTB: Open wire spreaders

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-09 23:45:51 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <05zNPSSmfhTNVl2mm37QoJZA6wLc@4ax.com>
Source record: 131570

k9sqg@aol.com (K9SQG) wrote:

>Anybody know of a source of open wire spreaders that still sells them at a cost
>of under $3 each? 2" and 4" are preferred.
>
>Thanks.
>
>Evan

Fellah by the call of w7fg, http://www.w7fg.com sells open wire feedline. You might go look at it, at his site. Maybe he will sell you just the insulators. Maybe you'd find it more efficient to just buy his feedline.

Otherwise, a length of pvc pipe, with a hack saw and an electric drill, should do you well... :-)

Bob
k5qwg

2232. Re: Double Bazooka

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 00:10:05 UTC
From: "H. Adam Stevens" <solo@totalaccess.net>
Message-ID: <usr90cklgbl4d7@corp.supernews.com>
Source record: 131571

Of course that should be

160 meters:
KHz VSWR
1800 1.5:1
1870 - 1940 1:1 70KHz of 1:1 SWR
2000 3:1

H, NQ5H

"H. Adam Stevens" <solo@totalaccess.net> wrote in message
news:usqtvijg0b1i46@corp.supernews.com...
> Now that I have read all sorts of stuff I thought the group might actually
> like to see some VSWR data:
snip-
> 160 meters:
> KHz VSWR
> 1800 1.5:1
> 1870 - 1940 1:1 70KHz of 1:1 SWR
> 1900 3:1
deletia....

2233. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 00:34:27 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCDA993.B6C332D3@ieee.org>
Source record: 131572

Lee Carkenord wrote:
> I need to fine-tune (for resonance) a 20M meter delta loop
> antenna......desired resonance of 14.225 Mhz...and I want to do the
> fine tuning with the antenna in its final place _UP_ in the air.
> When the antenna is up in the air, I cannot access _ANY_ of it for
> "dipping".

Egads Lee, why go to all that trouble? Feed it with ladder-line and
trim the ladder-line back at the transmitter until you find resonance
at your desired frequency using your GDO. With this feedline method,
the exact length of the loop doesn't matter. Put it up in the air and
forget it.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2234. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 01:19:51 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dcdb478$0$86553$ba620e4c@news.skynet.be>
Source record: 131573

True, the bar is made of platinum but is no more the reference.
Jacques de ON5MJ

2235. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 01:31:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <usrh7vs0f5dv72@corp.supernews.com>
Source record: 131575

Correction. It would take a 141.4 (100 * sqrt(2)) volt RMS source to
create and maintain 100 watts of forward and 100 watts of reverse power
on the open circuited line.

Roy Lewallen, W7EL

Roy Lewallen wrote:
> gcd wrote:
>
>> . . .
>
>
>> The other 25W was reflected at the junction of the 50 and 150 ohm
>> lines and
>> absorbed by the source impedance.
>
>
> >. . .
>
> Careful here.
>
> Consider a Thevenin source of 100 volts RMS in series with 50 ohms
> driving a half wavelength open circuited 50 ohm line. The forward power
> is 100 watts. The reverse power is 100 watts. The line is correctly
> terminated at the source. Yet the dissipation in the source resistance
> is zero -- none of the reverse power is absorbed by the source impedance.
>
> What's different about your source that it absorbs the reverse power,
> yet in my example it doesn't? Can you write an equation that shows how
> much of the reverse power will or won't be absorbed by the source, that
> will give the correct answer for both your example and mine?
>
> Roy Lewallen, W7EL
>

2236. Re: FS - Telrex TB6EM TriBand Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 02:15:25 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <usrg9d4rbqmaa4@corp.supernews.com>
Source record: 131574
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

I am not too far from Ken and have another such Telrex. It is on the ground, assembled, and on saw-horses. The rear two elements do not have traps. They are 20 meter and 15 meter reflectors. Those two elements broke in the middle (in a LOT of wind). I have the pieces. If you buy Ken's antennas, consider buying my antenna too. You could then have two working antennas and a lot of high quality parts. (Or three antennas, one without 15 meters)
The beam is a real good performer. I worked a lot of DX with it.
73 Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

"K.W. Schang" <kschang@wideopenwest.com> wrote in message news:MPG.1833b5f34e72ab8989683@news-east.giganews.com...
> FS - Two 6 element TB6EM Telrex Triband beams.
> One antenna FB. Both 15 meter traps are bad on second antenna, otherwise
> second antenna is FB
> Have instruction manual. Detroit area.
> Ken, W8LU

2237. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 04:25:23 UTC
From: tdonaly@aol.com
Message-ID: <20021109232523.16444.00000017@mb-cp.aol.com>
Source record: 131576

Cecil wrote,
>
>Nitpicker! What's the VF of a piece of coax traveling at 99.999999999%
>of the speed of light?
>--
>cheers, CAM
If you were riding along with it, you would measure the same velocity factor regardless of your speed relative to everything else. If you weren't, you'd have
to adjust things so that both you and the coax measured the speed of light as being the same. See any elementary physics text.
73
Tom Donaly, KA6RUH

2238. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 05:08:11 UTC
From: Frank Donovan <donovanf@erols.com>
Message-ID: <aqkpjg$5fg$1@bob.news.rcn.net>
Source record: 131577

The best material I've found is molded Grade LE phenolic rod.
It's impervious to moisture and I've never had one fail
in 30 years of use. A three foot length of 3/4" diameter
molded rod costs about $25.00.

It's available in diameters from 3/16" to 4".

Recommended source: AIN Plastics 800-431-2451

73!
Frank
W3LPL
donovanf@erols.com

Bob Cameron <bob.cameron.remove@optusnet.com.au> wrote in message
news:l2mjqa.cv7.ln@p400bob.lse.com.au...
> Gordon Couger wrote:
>
> > I have 3 antenna designs that work and have been range tested side by
side
> > with commercial products using corn field ranges and they pass a reality
> > check and I need to know what patristic to use for the center insulator
in
> > dipoles (low voltage, high current) and traps where the voltage and loss
> > are more critical. UV and weathering are also an important
consideration.
>
> Fibreglass might be another possibility? Although not a centre insulator
> situation I use pultruded rod for Quad spiders.
>
> Cheers, Bob VK2YQA

2239. Re: Open wire spreaders

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 05:58:41 UTC
From: denton <denton@oregontrail.net>
Message-ID: <aqksj3$q2i$1@news.apaynet.com>
Source record: 131578

Find a farm supply house and purchase some electric fence fiberglass
posts...they are about 1/2 inch in width and easy to cut and drill.
K9SQG <k9sqg@aol.com> wrote in message
news:20021109111628.03871.00000026@mb-cm.aol.com...
> Anybody know of a source of open wire spreaders that still sells them at a
cost
> of under $3 each? 2" and 4" are preferred.
>
> Thanks.
>
> Evan

2240. Re: Open wire spreaders

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 06:35:55 UTC
From: Bill M <exray@no>
Message-ID: <usrvct68gi3qca@corp.supernews.com>
Source record: 131579

denton wrote:
>
> Find a farm supply house and purchase some electric fence fiberglass
> posts...they are about 1/2 inch in width and easy to cut and drill.
> K9SQG <k9sqg@aol.com> wrote in message
> news:20021109111628.03871.00000026@mb-cm.aol.com...
> > Anybody know of a source of open wire spreaders that still sells them at a
> cost
> > of under $3 each? 2" and 4" are preferred.
> >
> > Thanks.
> >
> > Evan

Denton, Why would someone ask for 2-4" spreaders and 1/2" be a good
suggestion?
-BM

2241. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 06:58:58 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <qv0ssuctumuk67mgfrjdbej35ofgk0vqvi@4ax.com>
Source record: 131580

On Fri, 08 Nov 2002 16:54:34 -0600, CAM <Cecil.A.Moore@ieee.org>
wrote:

>"J. Harvey" wrote:
>>
>> "CAM"
>> > If I send you a couple of bucks, do you think you might buy a
>> > sense of humor?
>>
>> US or Canadian bucks ?
>
>Texas bucks have horns.

You can pay in loonies.

73's
Richard Clark, KB7QHC

2242. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 07:14:48 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <tm1ssusk51dpli9kjt0du5jq2eopdjrcqr@4ax.com>
Source record: 131581

On Sat, 09 Nov 2002 06:33:22 -0600, CAM <Cecil.A.Moore@ieee.org>
wrote:

>Richard Clark wrote:
>>
>> On Sun, 03 Nov 2002 23:29:00 -0600, CAM <Cecil.A.Moore@ieee.org>
>> wrote:
>>
>> >I recently had an email interchange with someone associated with QEX
>> >who believes reflected power cannot be extracted from a transmission
>> >line. This is obviously an old wive's tale.
>>
>> Was this "someone" the janitor's wife?
>
>All I can say is be patient for a couple of months.

Hi Cecil,

C'mon - that's the CHALLENGE no-show defense.

(Or could that be 9 months? You sure that was e-mail that got
exchanged?)

73's
Richard Clark, KB7QHC

2243. Re: power line SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 10:52:38 UTC
From: Wayne <w>
Message-ID: <ussejml4sujmbe@corp.supernews.com>
Source record: 131582

It's another crock of manure.
Similar to the 'Monster' cables, that are supposed to make your audio so much better, and, in fact, merely deplete your wallet more IMO...

"Ralph Mowery" <rmowery@ctc.net> wrote in message news:x51f9.413825$Aw4.17303161@bin2.nnrp.aus1.giganews.com...
> The audio people will buy about anything that is gold plated and sells for a
> high price. Saw some power cords similar to those in an audio magazine at
> about $ 100 for a 6 to 8 foot cord.The people jsut don't think about the 20
> to 100 feet of wire from the plug to the fuse box or back to the power pole.
>
> If they only know that you could cut the cord to 1/2 wavelength it would
> work beter :-). I might have to look it up but I only calculate about 1400
> miles not counting the velocity factor :-)
>
>
> > In case you're having problems matching your rig to the AC power
> > grid...
> >
> > URL deleted
> >
> >
>
>

2244. Re: 40 foot aluminum ladder

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 10:55:02 UTC
From: Wayne <w>
Message-ID: <usseo8q4he8eea@corp.supernews.com>
Source record: 131583
Cross-posted to: alt.ham-radio.marketplace,alt.home.repair,rec.radio.amateur.antenna,rec.radio.amateur.misc

Can it be shipped via UPS or ????

"Jack Weston" <jwestonsand@nospampleas.com> wrote in message
news:alh4citcc1@nntp9.atl.mindspring.net...
> http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1765255471
>
>

2245. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 12:01:48 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCE4AAC.BCE7EF13@ieee.org>
Source record: 131584

Richard Clark wrote:
>
> CAM <Cecil.A.Moore@ieee.org> wrote:
> >All I can say is be patient for a couple of months.
>
> C'mon - that's the CHALLENGE no-show defense.

Sorry, my hands are tied so I can't type.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2246. 2m/70cm dualband GP instuctions needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 12:06:03 UTC
From: Juha <REMOVEjuha_@hotmail.com>
Message-ID: <aqli1o$828$1@phys-news1.kolumbus.fi>
Source record: 131585

Does anyone know instructions for 2m / 70 cm dualband mobile-GP? I know I could buy one, but I hate to spend money for a piece of wire ;)

73
Juha
OH7PF

2247. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 12:20:25 UTC
From: carkenord@juno.com
Message-ID: <4346b55e.0211100420.6c3d5c36@posting.google.com>
Source record: 131586

I am getting well-intended responses to my question.....and I
really do appreciate the fact that people are taking the time to
respond.

However, my original question, precisely as I stated it, still stands.

I'm not looking for _OTHER_ ways to establish what the resonant freq
is.....I'm looking for a way to do it with my GDO, by dipping at the
end of a non-half wave of coax.

Now.....the thought also occured to me.....maybe what I want to do
is not possible? If that's the case, please....someone tell me that,
also.

Thanks again, folks.....I appreciate your help.

Lee Carkenord KA0FPJ
Denver, CO

2248. Re: Open wire spreaders

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 13:22:49 UTC
From: Sparks W4EAS <sparksw4eas@mindspring.com>
Message-ID: <3DCE5DA9.2A43@mindspring.com>
Source record: 131587

Me think's the 1/2 inch is the width of the "Rod". The Rod can be cut
to "Any" length needed :-) Sparks W4EAS

2249. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 13:37:23 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aqlnej$i15$1@knossos.btinternet.com>
Source record: 131589

> Now.......the thought also occured to me.......maybe what I want to do
> is not possible?

==========
Les, you could be right.

But if you are determined to involve a GDO I suggest you hold it one hand
while feeding the complete delta-loop data, including height above ground
and soil characteristics, into EZNEC with the other.

Reg

2250. Re: Open wire spreaders

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 13:39:13 UTC
From: Bill M <exray@no>
Message-ID: <usso658njeft95@corp.supernews.com>
Source record: 131588

Sparks W4EAS wrote:
>
> Me think's the 1/2 inch is the width of the "Rod". The Rod can be cut
> to "Any" length needed :-) Sparks W4EAS

Oh, I get it now. I need to read better.
Sri,
Bill

2251. Re: Open wire spreaders

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 13:43:02 UTC
From: Sparks W4EAS <sparksw4eas@mindspring.com>
Message-ID: <3DCE6266.AC7@mindspring.com>
Source record: 131590

Have a GREAT day... 73 Sparks

2252. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 14:20:56 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <GGrOPbt1yW7wLzbi6H6y93SmMoQC@4ax.com>
Source record: 131591

carkenord@juno.com (Lee Carkenord) wrote:

>I have a military GDO...the AN/PRM-10. I also have a Millen 90651
>dipper. I am somewhat familiar with the useage of these units.
>
>I need to fine-tune (for resonance) a 20M meter delta loop
>antenna......desired resonance of 14.225 Mhz...and I want to do the
>fine tuning with the antenna in its final place _UP_ in the air.
>When the antenna is up in the air, I cannot access _ANY_ of it for
>"dipping".

Why don't you set your transceiver on 20M, transmit a low power CW signal with your SWR meter engaged, and tune your vfo across the band? Where the SWR is lowest, wouldn't that be where the antenna system is more or less resonant?

Bob
k5qwg

>
>I REALLY want to see the resonant freq of this antenna.
>
>I understand that I can attach a 14.225 Mhz half-wave of 50 ohm coax
>to the antenna feedpoint, short the OTHER end of the coax with a
>small single turn loop, and couple the GDO to that loop, and tune the
>GDO for a dip.
>
>Ok.....here is my question.......... Lets say that I don't have a
>piece of 50 ohm coax cut to a halfwave at 14.225 Mhz.
>
>Lets say that I have some 50 ohm coax, and lets say that I have used
>the GDO to determine the "velocity factor" of that coax. I have also
>measured the physical length of this coax......it's NOT a half-wave,
>and its not a multiple of a half wave at 14.225 Mhz.
>
>Is there some math, or better yet.......a simple computer
>program.....that would allow me to get the "TRUE" resonant freq of
>the delta using the piece of coax I just described?
>
>In other words.......I hook the "non-half wave" of coax to the
>antenna, waaaay up in the air, and I couple to, and dip...... the
>other end of this coax. I take the "dip" freq, the velocity factor,
>and the physical lenghth.....and enter those 3 facts into a computer
>program.........the program tells me the "TRUE" resonant freq of the
>antenna.
>

>Izzat possible? If yes.....where can I obtain the computer
>program......or the necessary math.....?? URL's....?? Websites??
>
>I know NOTHING of Smith charts.
>
> Thank you..... Lee Carkenord KA0FPJ

2253. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 14:58:53 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <usst1gqpdsjv7f@corp.supernews.com>
Source record: 131592

when you dip your antenna while it is connected thru a transmission line of unknown electrical length you are dipping on the resonance of the system, antenna and transmission line...
you can't cut the transmission line to resonance because you don't know the resonant freq of the antenna...
so as suggested you can use your xcvr at low power to plot swr...
be aware that if you change the length of the transmission line the curve will shift..
you need to determine the reactance and for that you need a noise bridge or better still the MFJ antenna analyzer if you really want to know the facts..
if you can find a copy of QST April 1977 page 40 thru 42, gives a good explanation...
good luck
hank wd5jfr

"Lee Carkenord" <carkenord@juno.com> wrote in message news:4346b55e.0211100420.6c3d5c36@posting.google.com...
> I am getting well-intended responses to my question........and I
> really do appreciate the fact that people are taking the time to
> respond.
>
> However, my original question, precisely as I stated it, still stands.
>
> I'm not looking for _OTHER_ ways to establish what the resonant freq
> is......I'm looking for a way to do it with my GDO, by dipping at the
> end of a non-half wave of coax.
>
> Now.......the thought also occured to me.......maybe what I want to do
> is not possible? If that's the case, please....someone tell me that,
> also.
>
> Thanks again, folks......I appreciate your help.
>
> Lee Carkenord KA0FPJ
> Denver, CO

2254. DIpole mounting question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 16:31:21 UTC
From: Mike M <nospam@nospam.com>
Message-ID: <FD2CFD3C0F7EC3F0.344085C68AB7705C.B818F74DAE0C4896@lp.airnews.net>
Source record: 131593

I'm thinking about antennas now that I've decided to get my General.
Should be next month.

I live in a fairly restricted suburban neighborhood. I'm sure I could
get away with a conservative antenna like one of the Force 12 vertical
dipoles of maybe some other vertical. But in looking around and reading
the dipole looks a heck of a lot cheaper and performance wise a good
start.

Question is can I mount this under the eaves of my house without any
significant degredation in performance? I have a perfect 70 ft. run if I
can get away with doing this. How about over the roof? I can camouflage
these very well. I know in a perfect world that away from the house is
ideal but I can't get away with that.

Any ideas?

2255. Re: DIpole mounting question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 17:21:38 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DCE95A2.FFFD49D2@cwis.net>
Source record: 131594

Mike,
Sure, you can get away with it, sort of. I think
you realize that an antenna mounted under the eaves
isn't going to be the 'best' in the world, right? You
also need to think about the problems that can crop up
by having an antenna on, or very close to your house.
The 'biggy' will be interference with other electronics
in the house. If you're lucky enough not to have any
RFI, then I think the dipole would be an improvement
over a vertical (in most cases).
'Doc

2256. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 19:21:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ustftes3tacq7b@corp.supernews.com>
Source record: 131597

The fundamental problem you have in trying to make your measurement is that you don't get enough information with the GDO, and it's not useful information. If you knew the impedance (magnitude and phase, or resistance and reactance) at the input end of the line, and the electrical length (length times velocity factor) and loss of the line, you could find the impedance at the far end, and by varying the frequency, find the frequency at which the antenna itself is resonant. If all you know is the resonant frequency at the input end of the line, you can't even determine what the antenna's impedance is at that frequency. To do that, you'd also need to know the resistance at the input end at resonance (and the line electrical length and loss). But even if you knew the antenna's impedance at the frequency where the line input is resonant, you still can't use that information to find where the antenna would be resonant unless you know something about how the antenna's impedance changes with frequency.

So the answer to your original question is no. You can't.

Roy Lewallen, W7EL

Lee Carkenord wrote:
> I am getting well-intended responses to my question.....and I
> really do appreciate the fact that people are taking the time to
> respond.
>
> However, my original question, precisely as I stated it, still stands.
>
> I'm not looking for _OTHER_ ways to establish what the resonant freq
> is.....I'm looking for a way to do it with my GDO, by dipping at the
> end of a non-half wave of coax.
>
> Now.....the thought also occured to me.....maybe what I want to do
> is not possible? If that's the case, please....someone tell me that,
> also.
>
> Thanks again, folks.....I appreciate your help.
>
> Lee Carkenord KA0FPJ
> Denver, CO

2257. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 20:09:29 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <ustf7oeq6o3ea3@corp.supernews.com>
Source record: 131595

You win, pick up the marbles... :>)

"J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote in message
news:%J8z9.10283$EY2.1826925@news20.bellglobal.com...
> CAM stated the obvious (thanks...):
> > I'll have you know that a one second long
> > transmission line won't even reach to the moon.
>
> "Fred Hambrecht Sr." got it wrong
> > And a 20 year one won't reach Alpha centuri
>
> If the Vf was 100%, then a 20-year long cable would reach there and back
2.5
> times. Alpha Centuri is about 4 light years distant.
>
> If the Vf was 80%, then it would reach there and back only twice. If the
Vf
> was very very close to 0%, then you could keep the cable in your pocket.
>
>

2258. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 20:23:01 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <lvetsu484nqvs3fsb1jav4li1cs93d0j3t@4ax.com>
Source record: 131596

On Thu, 07 Nov 2002 20:28:19 -0600, CAM <Cecil.A.Moore@ieee.org>
wrote:

>"J. Harvey" wrote:
>> Richard's original statement about the ratio of two powers being
>> dimensionless was, and always will be, correct. Your attempted correction
>> was wrong. So was Richard's unnecessary "Tochï¿½".
>
>My attempt at humor was wrong????? Since when did God die and make
>you the humor police?

A simple solution has already been presented by you: be a little less
subtle when you present your humor.

!!!! Critical aside presented in an ironic/satirical fashion* follows:
"Smilecon when you say that pard'ner!" - The eVirginian
satire ends** !!!!

73's
Richard Clark, KB7QHC

* Fashion: as determined by the courts to be in-offensive through the
inclusion of this notice. dated 10 Nov 2002 consult revised code.
** statement is currently being contested in the courts of Washington
as not being truthful as to content - however the inclusion of this
footnote constitutes "good faith" effort so as to present the illusion
of not offending and negates any recourse in court.

2259. Re: TA-33 dimensions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 20:33:32 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dcec29e$0$86541$ba620e4c@news.skynet.be>
Source record: 131598

I build one TA33 jr 20 yrs ago and I only have the commercial brochure which tells that the boom length is 12 ft long, max element length is 26ft 8in (reflector), and turning radius is 14ft 9in. There was also a TA31 whose element length was 24ft & 7 1/2 in long (it was possible to upgrade it to TA32 or TA33 with the same driven element). Following the brochure the normal TA33 (not the junior) had a max element length of 29ft and a turning radius of 16ft and a boom length of 18ft. I also have a separate sheet telling that the driven element of my antenna was 24ft & 8 1/2 in (why mine ?). There is also a reprint of the RSGB bulletin May 1960 (by E. Mosley W0FQY) on how these traps are working.

I am not sure it will help you to make a copy but it's all I have.

73 de ON5MJ - Jacques.

2260. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 20:40:09 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCEC429.BBA6E08C@ieee.org>
Source record: 131599

"Fred Hambrecht Sr." wrote:
> You win, pick up the marbles... :>)

Fred, haven't you ever been to Alpha Centuri? I've got some strange
looking friends who go there regularly. Shall I send them over to
your address about 2am some morning?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2261. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 20:42:14 UTC
From: CAM <Cecil.A.Moore@ieee.org>
Message-ID: <3DCEC4A6.11F2CA9F@ieee.org>
Source record: 131600

Richard Clark wrote:
>
> CAM <Cecil.A.Moore@ieee.org> wrote:
> >My attempt at humor was wrong????? Since when did God die and make
> >you the humor police?
>
> A simple solution has already been presented by you: be a little less
> subtle when you present your humor.

I put a smiley face on my posting, Richard. What more do you want
me to do?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2262. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 20:54:49 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <dkhtsu4rlc45qblmm1196fpssa81v70cr1@4ax.com>
Source record: 131601

On 10 Nov 2002 04:20:25 -0800, carkenord@juno.com (Lee Carkenord)
wrote:

>
>I'm not looking for _OTHER_ ways to establish what the resonant freq
>is......I'm looking for a way to do it with my GDO, by dipping at the
>end of a non-half wave of coax.
>
>Now.......the thought also occured to me.......maybe what I want to do
>is not possible? If that's the case, please....someone tell me that,
>also.
>
>Thanks again, folks......I appreciate your help.
>
> Lee Carkenord KA0FPJ
> Denver, CO

Hi Lee,

Just flew through your neck of the woods last night (I play around the
Springs area and Cripple Creek - Victor) back to "dry-weather"
Seattle.

You already know the solution as you sheepishly offered earlier
>>I know NOTHING of Smith charts.
Well, this is the best opportunity to start (no point in fumbling
around with it on paper if you have nothing to appreciated by). Your
situation and question are a classic example of Smith chart
application.

73's
Richard Clark, KB7QHC

2263. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 20:58:38 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <c5itsu0ef4rmsuf4bjetkh97aigmmhtovn@4ax.com>
Source record: 131602

On Sun, 10 Nov 2002 14:42:14 -0600, CAM <Cecil.A.Moore@ieee.org>
wrote:

>Richard Clark wrote:
>>
>> CAM <Cecil.A.Moore@ieee.org> wrote:
>> >My attempt at humor was wrong????? Since when did God die and make
>> >you the humor police?
>>
>> A simple solution has already been presented by you: be a little less
>> subtle when you present your humor.
>
>I put a smiley face on my posting, Richard. What more do you want
>me to do?

I don't see a smiley face... are you serious?

73's
Richard Clark, KB7QHC

2264. Re: Gain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 21:13:22 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <fqgtsuojfn7sbqlpljglihlb54astufhdg@4ax.com>
Source record: 131603

On Thu, 7 Nov 2002 10:29:06 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Ian, G3SEK eloquently wrote:
>"The dimensions of any physical quantity show how this this is all
>done..."
>
>To some, we must appear as the blind Indians describing an elephant.
>
Certainly to me appearing late here (always room for one more)

>Inches and centimeters may be chosen as units of length (the standard, I
>believe, is a precise meter bar guarded somewhere in Paris).
>
>If we choose inches and centimeters as umits of measurement, yards and
>meters become dimensions because a dimension is a synonym for size.
>
>A measure of 36 inches is one yard. A measure of 100 centimeters (units)
>is one meter, a dimension.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

The logic of your last statement has the conclusion negating the
premise. How is it that same inch or centimeter does not have the
dimension status of a yard or meter?

This sounds like: it takes more than one unit to make up one
dimension.

Consult NIST:
http://physics.nist.gov/
this page points to material answering all issues being discussed.

73's
Richard Clark, KB7QHC

2265. Re: What is a good, small 6 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 21:23:17 UTC
From: Marty <vk2umj@NOSPAM.yahoo.com.au>
Message-ID: <6%zz9.74061$g9.208195@newsfeeds.bigpond.com>
Source record: 131604

"hasan schiers" <schiers@netins.net> wrote in message
news:aqhlc2$abj1h$1@ID-52642.news.dfncis.de...
> Vertically polarized antennas are NOT just for FM on 6m. If you are
working
> locally, (not via ionosphere), then yes, polarization is an issue. But if
> you are working sporadic E or regular F layer communications, then the
> polarization is not a significant factor, because the polarization off the
> ionosphere is relatively random. I have made hundreds of 6m qsos on ssb
> sporadic E with an R6000 vertical.

I'd very much have to agree here - I have had very good contacts from Oz to Japan and Hawaii during the right times using a modified 11m vertical and only 10W. When conditions are right, a wet piece of string will work!!

I also agree that for SSB a beam would be ideal, but some of us aren't able to achieve the ideal setup!!

--
Martin, VK2UMJ
vk2umj@NOSPAMyahoo.com.au

Remove NOSPAM from e-mail address to reply

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.417 / Virus Database: 233 - Release Date: 08/11/2002

2266. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 22:46:42 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dcee1d2$0$196$ba620e4c@news.skynet.be>
Source record: 131605

Hi Roy,

Part of the original post was:

| I REALLY want to see the resonant freq of this antenna

So I'm surprised by your reply:

| So the answer to your original question is no. You can't.

You are true about the context (magnitude, phase, resistance, reactance, etc) but I'm quite surprised about the resonance. I have cross-checked different books and this are the warnings about measuring resonant frequency of antennas:

1. ARRL handbook 1973 - p.521 - "Caution must be used in checking transmission lines or antennas - and, especially, combinations of antenna and line - on this account, because these linear circuits have well-defined series of harmonic responses, based on the lowest resonant frequency, which may lead to false conclusions respecting the behaviour of the system".

2. ARRL handbook 2001 - p.26-17 - No restriction about mesuring the resonant frequency of an antenna, just "Battery-operated are convenient for antenna measurements".

3. A. Raffin F3AV - L'émission et la réception d'amateur 1952 - p.375 - (I translate) "When the antenna resonates this absorption is shown on the 6AF7 indicator. You'll couple it loosely for having more accuracy. In reading the variable capacitor curves, you immediately see the resonant frequency of the aerial...."

4. Radio designer's handbook - F. Langford-Smith 1957 - p 1325 - He basically uses a valve voltmeter and a signal generator for measuring the primary resonant frequency of aerial and rf coils, which is not very different (gives a sharp increase instead of a dip) than using a GDO.

5. Les Antennes - Robert Piat F3XY - 1965 - p.227 - (I translate) "We can control the resonant frequency of an antenna with a GDO. this measurement will permit to estimate the selectivity of the antenna ... This equipment will permit to detect the parasitic resanances."

6. Practical antenna handbook - Joseph J. Carr - 1994 - p 465-467 - One of the most common instrument for determining the resonant frequency of antenna is the so-called "dip oscillator", or "dip meter"..... etc.

So Roy, maybe we don't speak about the same things but I think we can do it and I experienced measuring antenna resonant frequency with a GDO. If I am wrong, tell me where and why. Thanks

73 de ON5MJ - Jacques.

2267. Re: What is a good, small 6 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-10 23:09:11 UTC
From: k1bqt@aol.com
Message-ID: <20021110180911.07703.00003665@mb-mn.aol.com>
Source record: 131606

I think a small 3-element yagi and 100 Watts gets it done about as well as anything. I think that combination represents the "cut line" between working stations and working the stations I want.

Rick K1BQT

2268. Example V-Plane Patterns for HF Verticals? Where?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 00:43:37 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0211101643.66f4faaf@posting.google.com>
Source record: 131607

I'm noodling a quick & dirty self-supporting low-profile 20m vertical which should be more better than the usual quarter wave thingey which requires an abysmal number of long radials to work half-decently. A Max-Gain 26 foot 40m fiberglass quad spreader wrapped with wire and dropped into a piece of pipe driven into the ground. Six ten foot radials. Hit it with volts instead of amps. Simple tuning network at the base fed with 50 ohm coax. Comes up close to a 3/8 wave tall vertical. What does the V-Plane pattern look like . . ? Being still modeling lame as I yam . . Is there a site out there which gets into the matter of patterns for oddball height verticals?? I think the old Antenna Books did but I can't find 'em on my CD version.

Tnx,

w3rv

2269. Re: How to directly connect frequency counter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 00:49:25 UTC
From: Gerry MacDonald <gerry.macdonald@globaltv.ca>
Message-ID: <p8Dz9.420$9V3.128352@news0.telusplanet.net>
Source record: 131608

Ken

I would suggest a Dir. Coupler with about a 20 dB sample. This should work great with the counter and not cause any problems in the feedline.

Gerry
"Ken" <cprstn54zz@att.net> wrote in message
news:3dc7d7a3.441877046@news-server.optonline.net...
> I just bought a Radio Shack #22-306 frequency counter (on clearance at
> $39.99). I know it works because it reports the proper figures for my
> handi talkies.
>
> I had hoped that its antenna would pick up stray radiation when I TX
> from my FT990. Even though my field stregth meter is showing
> measurable RF in the shack, the counter won't register, even with the
> antenna against the coax feedline.
>
> The counter also has has a 50 ohm BNC jack for direct connect. RS
> says not to exceed 1.4 V peak-to-peak on the jack.
>
> Using Ohm's law, this seems to translate into 1/2 watt.
>
> I had hoped to use this as the frequency meter for my 5 watt QRP XCVR.
> Unless I have someone stand under the dipole with the counter, it
> looks like this won't work using the counter's antenna.
>
> Can I "T" off the radio's SO-239, with one leg to the antenna and one
> to the frequency counter? How do I lower the voltage to the counter
> to under 1.4 volts without sucking power? Can I just put a 500 ohm
> resistor in the center condutor of the leg going to the counter or do
> I have to maintain 50 ohms to avoid massive reflection?
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

2270. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 01:17:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <usu4q3bkkbod4@corp.supernews.com>
Source record: 131612

The problem is one of definition. When someone says the "resonant frequency of the antenna", I take it to mean the resonant frequency of the antenna, as measured at the antenna feedpoint, with no transmission line attached. The "resonant frequency of the system" is, to me, the resonant frequency as measured at the input to the transmission line. Only if the transmission line is a multiple of an electrical half wavelength long, or the antenna's resistance at resonance equals the line's impedance, will the two resonant frequencies be the same. I interpreted the question to be: "If I measure the resonant frequency of the *system*, can I use that information to determine the resonant frequency of the *antenna*, if the length of the feedline isn't a multiple of a half wavelength (and assuming I do know the electrical length of the line)?" The answer to that question is no.

Let me give you an example. I used the 15MQuad example file from EZNEC. This antenna is resonant at 21.15 MHz, where its feedpoint resistance is 112.6 ohms. The question, as I understood it, was whether this frequency of 21.15 MHz could be determined with a GDO connected at the input end of a cable. I arbitrarily chose a 50 ohm cable with length of 15 meters and velocity factor of 0.66. (It wasn't entirely arbitrary -- I made sure it wasn't too close to a half wavelength at 21.15 MHz.) At 21.15 MHz, the frequency at which the antenna is resonant, the impedance at the input end of the line is 45.2 - j39.4 ohms, not at all resonant. Here's what you'd see with a GDO at the input end of the cable. There would be a "sort of" resonance at 20.96 MHz. It's not a true resonance -- the amount of reactance drops as frequency increases, then increases again, without going through zero. So you might see a shallow dip on the GDO. The impedance at the input end of the line at 20.96 MHz is 38.6 - j32.5 ohms, still pretty reactive, but that's as low as it goes in that region. At that frequency, the antenna's feedpoint impedance is 91.74 - j32.69 ohms, definitely not resonant. With the GDO, you'd find a true resonance at 23.33 MHz. At that frequency, the line's input resistance is 7 ohms, and the antenna feedpoint impedance is 209 + j172. And you'd see a parallel resonance at 19.45 MHz, where the line's input R is about 1400 ohms and the antenna feedpoint Z is 68 - j303.

Now, from knowing the resonances of 19.45 and 23.33 MHz, or the reactance dip at 20.96 MHz, could you determine that the antenna is resonant at 21.15 MHz? No. Can you measure the resonant frequency of the system? Yes. With a GDO, you'll find there are resonances at 19.45 and 23.33 MHz. But what good would it do you to know those frequencies, where the resistances (which you wouldn't know) are 1400 and 7 ohms respectively?

Roy Lewallen, W7EL

ON5MJ wrote:
> Hi Roy,
>
> Part of the original post was:
>
> | I REALLY want to see the resonant freq of this antenna
>
> So I'm surprised by your reply:
>
> | So the answer to your original question is no. You can't.
>
> You are true about the context (magnitude, phase, resistance, reactance,
> etc) but I'm quite surprised about the resonance. I have cross-checked
> different books and this are the warnings about measuring resonant frequency
> of antennas:
>
> 1. ARRL handbook 1973 - p.521 - "Caution must be used in checking
> transmission lines or antennas - and, especially, combinations of antenna
> and line - on this account, because these linear circuits have well-defined
> series of harmonic responses, based on the lowest resonant frequency, which
> may lead to false conclusions respecting the behaviour of the system".
>
> 2. ARRL handbook 2001 - p.26-17 - No restriction about mesuring the resonant
> frequency of an antenna, just "Battery-operated are convenient for antenna
> measurements".
>
> 3. A. Raffin F3AV - L'ï¿½mission et la rï¿½ception d'amateur 1952 - p.375 - (I
> translate) "When the antenna resonates this absorption is shown on the 6AF7
> indicator. You'll couple it loosely for having more accuracy. In reading the
> variable capacitor curves, you immediately see the resonant frequency of the
> aerial...."
>
> 4. Radio designer's handbook - F. Langford-Smith 1957 - p 1325 - He
> basically uses a valve voltmeter and a signal generator for measuring the
> primary resonant frequency of aerial and rf coils, which is not very
> different (gives a sharp increase instead of a dip) than using a GDO.
>
> 5. Les Antennes - Robert Piat F3XY - 1965 - p.227 - (I translate) "We can
> control the resonant frequency of an antenna with a GDO. this measurement
> will permit to estimate the selectivity of the antenna ... This equipment
> will permit to detect the parasitic resanances."
>
> 6. Practical antenna handbook - Joseph J. Carr - 1994 - p 465-467 - One of
> the most common instrument for determining the resonant frequency of antenna
> is the so-called "dip oscillator", or "dip meter"..... etc.
>
> So Roy, maybe we don't speak about the same things but I think we can do it
> and I experienced measuring antenna resonant frequency with a GDO. If I am
> wrong, tell me where and why. Thanks
>
> 73 de ON5MJ - Jacques.

>
>

2271. Which Scenario is Least Likely to be a Magnet for Lightning?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 01:26:58 UTC
From: Gary Brown <gbrown@nc.rr.com>
Message-ID: <CHDz9.94980$dn3.3522005@twister.southeast.rr.com>
Source record: 131609

Antenna:

Stealthy 78-foot 5-band W9INN Dipole with W2AU Ansulator center insulator.

Twenty feet high, in clump of pines and oaks about 50' tall on residential quarter-acre lot

Feedline is 80' of Belden 8214 RG/8. Coax enters house via drilled board wedged in window sash opening of second-story shack.

Scenario 1

Coax is always connected to SPDT switch that is connected to station ground. Center position of switch disconnects center conductor from station when not in use. Station ground is 6-foot rod in ground , directly below shack.

Scenario 2

Coax is always disconnected when station is not in use, and PL-259 is left lying on wooden shelf. Coax is not connected to any grounding.

Second antenna is a 50-foot high sloping inverted L fed from a wall-mounted Icom AH-4 coupler. It was sling-shoted over the top of a tree. This antenna is always disconnected from station via a knife switch when not in use. Far end of antenna is connected to another ground rod at base of tree via a 1-megohm resistor.

Located in rather lightning-prone central North Carolina.

Comments?

Gary

K4GPB

2272. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 01:48:22 UTC
From: jder8745@aol.com
Message-ID: <20021110204822.24176.00004620@mb-mw.aol.com>
Source record: 131610

Alas,

Even if it is resonant as per Cam's post, it can still present a non-50 Ohms load to the transmitter, requiring a "antenna tuner".

73 de Jack, K9CUN

2273. Re: How to directly connect frequency counter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 02:08:24 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <sa3usugsjntk3ocv80t11kvk3rlcs6qghn@4ax.com>
Source record: 131611

On Tue, 05 Nov 2002 14:56:18 GMT, cprstn54zz@att.net (Ken) wrote:

>I just bought a Radio Shack #22-306 frequency counter (on clearance at
>$39.99). I know it works because it reports the proper figures for my
>handi talkies.
>
>I had hoped that its antenna would pick up stray radiation when I TX
>from my FT990. Even though my field stregth meter is showing
>measurable RF in the shack, the counter won't register, even with the
>antenna against the coax feedline.
>
>The counter also has has a 50 ohm BNC jack for direct connect. RS
>says not to exceed 1.4 V peak-to-peak on the jack.

Remember, this is a Maximum specification. The meter will work at far
lower levels.

>
>Using Ohm's law, this seems to translate into 1/2 watt.
>
>I had hoped to use this as the frequency meter for my 5 watt QRP XCVR.
>Unless I have someone stand under the dipole with the counter, it
>looks like this won't work using the counter's antenna.

It seems you have found a suitable solution by adding more turns of
wire. You could also trim back to one turn and slip that turn between
cover or panel to pick up the RF within the case (provided it is a
simple oscillator drive and not a synthesized one with RF soup inside
the rig). Experiment with this loop sniffer and perhaps move it into
the guts of the oscillator (you want a small single turn loop so as to
not "pull" or load the oscillator). If this works, you can add a
panel mount test jack and hardwire the loop to it. If it works once,
it will work forever.

>
>Can I "T" off the radio's SO-239, with one leg to the antenna and one
>to the frequency counter? How do I lower the voltage to the counter
>to under 1.4 volts without sucking power? Can I just put a 500 ohm
>resistor in the center condutor of the leg going to the counter or do
>I have to maintain 50 ohms to avoid massive reflection?
>
>Ken KC2JDY

Hi Ken,

500 Ohms does provide a considerable SWR (as does the suggestion to snip the pin on the connector to isolate the meter more) - as it should. You want to reflect as much power as possible on that test port (as distinct from reflecting power from an in-line port which means trouble). The SWR (at that port) simply serves as an open switch (a leaky one) removing the meter from the bulk of the power. If you were to add a 1 Ohm resistor across the meter input, the power applied to the meter would plunge further and probably still provide adequate signal for your purpose.

I will leave the math to you, you are moving in the right direction.

73's
Richard Clark, KB7QHC

2274. Re: Can a ham get busted for.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 02:46:20 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ni4ususngpanm327gtp7vgdqt9rslfutkp@4ax.com>
Source record: 131613

On Thu, 07 Nov 2002 11:31:30 -0800, nospam <xxxmmxxx@xxxspiritone.com>
wrote:

>using a modified ham radio (with power cut back to 5 watts)
>on CB?

Hi OM,

Others have affirmed that the hammer will come down if caught
(especially at those elevated power levels of 5W).

One interesting tidbit, merely alluded to, is that Amateur Radio
service is the only licensed service that allows non-type accepted
equipment. With our license we are uniquely privileged to design and
modify our equipment without going through cumbersome and costly type
acceptance testing and reports. It is also our responsibility to
insure that we do not interfere, nor to exceed emission levels in
harmonic or adjacent frequencies.

Too bad so little time is put to exercising this right. The term
breadboard seems to be fading from the designer's language (being
shouldered out by the term prototype which itself is in the dodo
class) and is further removed from its original application as a
literal description for a primitive transmitter.

Also too bad is that the FCC does not allow us to operate anything but
communication gear (no broadcasting and no transmissions without the
intent to communicate). I would love to build and operate Amateur
Broadcast Band (AM). The FCC need simply mandate AM receivers cover
that spectrum in the 160M band and allow us to transmit (conforming to
non-commercial activity) what we think is entertaining to no one in
particular (and with no appeal for "owning" a frequency). Extend that
one to allowing an Amateur Broadcast Network (thus allowing
controlled, non-interfering operation in regions).

I would also love to build an Amateur Radar and make my own HAARP
measurements. I ponder the implications of a Ham Mobile Maser in a
traffic snarl.... Legal Limit pulse of course.

73's
Richard Clark, KB7QHC

2275. Re: Which Scenario is Least Likely to be a Magnet for Lightning?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 05:28:38 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DCF4006.2BCA152C@cwis.net>
Source record: 131614

Gary,
I'd have to say that the likelyhood of a lightning
strike in case #1 is approximately 50%. On the other
hand, I also have to say that the likelyhood of a
lightning strike in case #2 is also approximately 50%.
Since you asked for the 'least' likely scenario, place
a negative sign (-) in front of both probablility figures.
That yields a -100% probability of a lightning strike.
'Doc

PS - Sound a little silly?

PPS - Aristotle: "There are lies, dammed lies, and statistics."

2276. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 09:47:52 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dcf7cc8$0$203$ba620e4c@news.skynet.be>
Source record: 131615

Thank you Roy for this important explanation - to me certainly - ,

I effectively have not yet used EZNEC (the basic free version is downloaded but not yet used, just have begun to read the explanation, hmm.. I promise I will do soon because I don't want to pass away without mastering this kind of tool) or similar program, so I never realised that the system could have different resonances than the radiating element alone when the transmission line length is not a multiple of lambda/2 or doesn't have the same Zc than the Zo of the antenna. It seems thus that erroneous statements were and are still printed - including in reference books, leading readers to erroneous practice because of lack of warning - about the use of a GDO connected to the entry of a system composed by an antenna and a random transmission line.

The first conclusion is already stated: I must learn more about the use of NEC.

The second one is about the use of tools like MFJ or Autek. It definitely seems that they provide a correct answer to the original question instead of a GDO. I have a small preference for Autek below 30 Mhz as they also measure the sign of the reactance and not only the size. Does somebody compare both equipment ?

73 de ON5MJ - Jacques.

2277. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 12:03:26 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DCF9C8E.FF4301C4@ieee.org>
Source record: 131616

ON5MJ wrote:
> ... so I never realised that the system could have
> different resonances than the radiating element alone when the transmission
> line length is not a multiple of lambda/2 or doesn't have the same Zc than
> the Zo of the antenna.

Take a look at my no-tuner all-band dipole on my web page.
I use it on all HF bands without a tuner and my maximum
SWR is 1.6:1 That's why I say throw your loop into the air,
feed it with ladder-line, and perform the matching function
at the transmitter end where it is warm in the winter and
cool in the summer.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2278. Re: Which Scenario is Least Likely to be a Magnet for Lightning?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 12:22:07 UTC
From: Bill M <exray@no>
Message-ID: <usv81gmht7rpf0@corp.supernews.com>
Source record: 131617

Gary Brown wrote:
>

>
> Twenty feet high, in clump of pines and oaks about 50' tall on residential
> quarter-acre lot
>
> Located in rather lightning-prone central North Carolina.
>
> Comments?
>
> Gary
>
> K4GPB

Gary, I grew up in south-eastern NC and the biggest lightning magnet seems to be the pine trees! If your antenna is in their midst its prone to pick up some whopping surges. I'd say leave things disconnected when not in use. The only guys I ever knew that got zapped were the ones who depended on gimmicks and ineffective grounds.
In my area (Sandhills) it wasn't uncommon for CP&L to put down up to 100 feet of ground rod to get a decent ground at a utility pole and I've seen places where you could push an 8 foot rod into the ground by hand. So its very hard to depend on the earth as part of a good grounding system.
Don't forget to disconnect any rotor cables! Use a Jones plug or some other type of multi-pin connector for that.

-Bill M

2279. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 13:03:31 UTC
From: carkenord@juno.com
Message-ID: <4346b55e.0211110503.f4a453c@posting.google.com>
Source record: 131618

>Roy Lewallen <w7el@eznec.com> wrote in message

>I
> interpreted the question to be: "If I measure the resonant frequency of
> the *system*, can I use that information to determine the resonant
> frequency of the *antenna*, if the length of the feedline isn't a
> multiple of a half wavelength (and assuming I do know the electrical
> length of the line)?" The answer to that question is no.

Roy.......you interpreted my question 100% correctly. That _IS_
exactly what I wanted to know.

I am sorry that the answer to my question is "No"......

I am gratified that you took the time to think about my question, and
that you replied in a manner that I can understand. Your explanation
of _WHY_ the answer was _NO_ is valuable. This clears up an area
that has been "grey" for some time, for me. I made a print-out of
your reply, and that print-out is now in my GDO notebook.

Thank you so much.
Lee Carkenord KA0FPJ
Denver, CO

2280. snake antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 13:05:19 UTC
From: rckchp@comcast.net
Message-ID: <6dc33f40.0211110505.2ce960b4@posting.google.com>
Source record: 131519

Yesterday (11/10/02)I was listening on 12m and I heard two hams discussing the "snake antenna". The ham who was advocating the "snake" said it consists of 136 feet of any type coax, with the braid and center conductor shorted (soldered together) at the far end and the braid opened, just the center conductor soldered at the pl-259 connector which connects to the xmitter. The coax is just laid on the ground, not necessairly in a straight line (thus the name "snake"). He claimed it works on all bands from 160m to 6m. He did not claim it was a really good antenna on 160 (the discussion was mostly about how to get on 160) but that it did work and was better than no 160m antenna.

Having a newly aquired spool of RG8X and no room for a conventional 160 antenna,I immediately had to try it. I attempted to break in to an ongoing 160 ssb qso, and while they acknowledged that there "was someone there" the noise level (thunderstorms in their area) was too much for them to get good copy. The fact that I was only using 10 watts (K2) probably didn't help, but I'll keep trying.

Has anyone used this antenna? What results? Thanks.

Rich K2CPE

2281. Re: snake antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 13:56:52 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DCFB724.311154B8@cwis.net>
Source record: 131520

Rich,
The 'Snake' antenna idea has been around for a while. What
the guys talking about it didn't say was that it's a receiving
only, antenna. It's usually at least one wave length long and
terminated in a resistor the same value as the coax's impedance,
(50 or 75 ohms). As you said, it isn't a really 'good' antenna
but it does work and is fairly 'quiet'. There was an article
about it in QST a number of years ago, I think, one of the
magazines anyway. I'm really suprized that anyone would have
heard you using your antenna on 160 meters...
'Doc

2282. Re: power line SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 14:00:48 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DCFB810.74624499@cwis.net>
Source record: 131521

Wayne,
I realize that it's an idea that works best when
spread on a garden, but isn't it an 'elegant' rip-off?
It's probably the 'best' one I've seen in years...
'Doc

2283. Re: Dual frequency microstrip antenna-Help!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 14:06:45 UTC
From: "news.verizon.net" <vze4xkw8@verizon.net>
Message-ID: <VPOz9.4702$TL6.1543@nwrddc02.gnilink.net>
Source record: 131522

You might like to take a look at the tri-band dish feed for 2, 3 and 5G, the so called paddle. There was something about it in QST a while back or check the W1GHZ web site. Although the frequencies are a bit different, the concept could point you in the right direction (pun intended). Some experimentation on 1.2 & 902, using PC board dual band antennas was inconclusive. Lots of variation due to the substrate propagation characteristics!

Phil, KB2HQ

"anand" <anandnavaneeth@hotmail.com> wrote in message news:bc6bd131.0211071706.5849fd84@posting.google.com...
> Hi there,
> I need to develop a dual frequency microstrip for WLAN
> working at 2.4GHz and 5.78GHz. I tried to excite along its length and
> width. Its working but i need same polarization Can u guys help me in
> this. Can you suggest anyother way of doing it.

2284. Re: snake antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 14:07:09 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <aqodid$1068@r02n01.cac.psu.edu>
Source record: 131523

Hi:
The snake antenna is supposed to be a alternative to the beverage receive antenna on 160/80m. In ON4UN low band dxing book he describes it as a very poor substitute for a beverage antenna. It was never intended for transmitting and was not intended for use above 40M. Mostly its a very long dummy load with a very poor SWR.
If your interested, I would recommend that you get a copy of ON4UN's book. It has a world of information on antennas for the lower HF bands. I think you can get it from the ARRLs book store on the web.

--
John Passaneau, W3JXP
Physics Dept. Electronics Shop
Penn State University
104 Davey Lab, University Park , Pa. 16802
814.863.4297, jxp16@psu.edu

"rich a." <rckchp@comcast.net> wrote in message
news:6dc33f40.0211110505.2ce960b4@posting.google.com...
> Yesterday (11/10/02)I was listening on 12m and I heard two hams
> discussing the "snake antenna". The ham who was advocating the "snake"
> said it consists of 136 feet of any type coax, with the braid and
> center conductor shorted (soldered together) at the far end and the
> braid opened, just the center conductor soldered at the pl-259
> connector which connects to the xmitter. The coax is just laid on the
> ground, not necessairly in a straight line (thus the name "snake"). He
> claimed it works on all bands from 160m to 6m. He did not claim it was
> a really good antenna on 160 (the discussion was mostly about how to
> get on 160) but that it did work and was better than no 160m antenna.
>
> Having a newly aquired spool of RG8X and no room for a conventional
> 160 antenna,I immediately had to try it. I attempted to break in to an
> ongoing 160 ssb qso, and while they acknowledged that there "was
> someone there" the noise level (thunderstorms in their area) was too
> much for them to get good copy. The fact that I was only using 10
> watts (K2) probably didn't help, but I'll keep trying.
>
> Has anyone used this antenna? What results? Thanks.
>
> Rich K2CPE

2285. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 14:10:39 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <GawnvLBfp7z9EA0m@ifwtech.co.uk>
Source record: 131525

Roy Lewallen wrote:

[...]
> Here's what you'd see with a GDO at the input end of the cable. There
>would be a "sort of" resonance at 20.96 MHz. It's not a true resonance
>-- the amount of reactance drops as frequency increases, then increases
>again, without going through zero. So you might see a shallow dip on
>the GDO. The impedance at the input end of the line at 20.96 MHz is
>38.6 - j32.5 ohms, still pretty reactive, but that's as low as it goes
>in that region. At that frequency, the antenna's feedpoint impedance is
>91.74 - j32.69 ohms, definitely not resonant. With the GDO, you'd find
>a true resonance at 23.33 MHz.
[...]

That begs a whole bunch of other questions about the way a GDO works -
or doesn't.

We've probably all read how a GDO is supposed to behave when coupled to
a simple parallel tuned circuit... but what about the more complicated
cases, like the one above? Why does a GDO behave the way it does? What
are the reasons behind a "sort of" resonance, a "shallow dip" and a
"true" resonance?

Has anyone ever published a real in-depth analysis?

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

2286. Re: Coax ground

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 14:16:53 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <aqoe4i$14rm@r02n01.cac.psu.edu>
Source record: 131524

Hi All:

All the commercial installations I've seen, ground the shield of the coax as they come off the tower. This is what I did at my shack. I also have the ground panel at the point the coax enters the house. See the Polyphaser web page. They the best information on what to do for lighting protection in the tec bulletins.

--
John Passaneau, W3JXP
Physics Dept. Electronics Shop
Penn State University
104 Davey Lab, University Park , Pa. 16802
814.863.4297, jxp16@psu.edu

"'Doc" <w5lz@cwis.net> wrote in message news:3DCC2F2B.C9CDCD35@cwis.net...
>
>
> Bill,
> The coax shield is not (or shouldn't be) a radiating
> part of the antenna. No, I wouldn't ground the shield
> at the bottom of the tower.
> If you're using one of the commercially made ground
> panels, do what the instructions say to do. If you're
> making your own ground panel, it wouldn't hurt to take
> a look at the commercial systems to see how they do it.
> I would think that a 'ground' at the base of a tower
> wouldn't be needed since you'll be handling it through
> a grounding panel anyway...
> 'Doc

2287. Re: power line SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 15:02:12 UTC
From: richardharrison@webtv.net
Message-ID: <540-3DCFC674-63@storefull-2317.public.lawson.webtv.net>
Source record: 131526

Ralph Mowery wrote:
"I might have to look it up but I only calculate about 1400 miles not counting the velocity factor :-) "

That`s close enough.

The wavelength = 186,000 mi/sec / 60 Hz
That`s about 3100 miles. Half is 1550 mi.
Shorten the distance for velocity slowed by the wire and its environment, and Ralph`s diatance is about right.

1400 miles is an impractical transmission distance. About 1 KV per mile is needeed for efficiency.1.4 million volts is too hard to insulate, even using d-c.

Best regards, Richard Harrison, KB5WZI

2288. Re: TA-33 dimensions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 15:19:57 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <ZRudnTVLtKrbV1KgXTWcpQ@comcast.com>
Source record: 131527

Jacques,

The TA33JR is has a shorter boom, and shorter elements than a TA33. Actually, he does not need the dimensions. The tubing is predrilled. The furthest out holes are for CW, and the closest in are for phone. There may also be a set of intermediate holes for a compromise. Each of the 3 elements is color coded. The only question is as to which is the director end and which is the reflector end of the boom. I suggest looking at a picture at the Mosley web site http://www.mosley-electronics.com/

Tam/WB2TT\

_____
"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message
news:3dcec29e$0$86541$ba620e4c@news.skynet.be...
> I build one TA33 jr 20 yrs ago and I only have the commercial brochure
which
> tells that the boom length is 12 ft long, max element length is 26ft 8in
> (reflector), and turning radius is 14ft 9in. There was also a TA31 whose
> element length was 24ft & 7 1/2 in long (it was possible to upgrade it to
> TA32 or TA33 with the same driven element). Following the brochure the
> normal TA33 (not the junior) had a max element length of 29ft and a
turning
> radius of 16ft and a boom length of 18ft. I also have a separate sheet
> telling that the driven element of my antenna was 24ft & 8 1/2 in (why
mine
> ?). There is also a reprint of the RSGB bulletin May 1960 (by E. Mosley
> W0FQY) on how these traps are working.
>
> I am not sure it will help you to make a copy but it's all I have.
>
> 73 de ON5MJ - Jacques.
>
>

2289. Re: snake antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 16:22:32 UTC
From: Walter AG5P <waltercw@accessus.net>
Message-ID: <dYCcnbjN4PdyRVKgXTWc2Q@accessus.net>
Source record: 131528

This website should be what you are talking about, at
least it is the same diagram.
http://www.kc7nod.20m.com/snake.htm

Try doing a search on google.com and you will find
several articles.

The snake does a respectable job of low noise receiving
and a pre-amp sure makes it better. Also you don't have
to waste dollars on expensive coax, cheap tv twinlead will
do the same thing (actually all you have is a folded
antenna and even a single long wire on the ground will
work). For matching just use a homebrew L-match or
a parallel-network depending on the impedance.. It
works very well if it is close to a wavelength long at the
lowest expected receiving frequency.

73...Walter, AG5P

"rich a." <rckchp@comcast.net> wrote in message
news:6dc33f40.0211110505.2ce960b4@posting.google.com...
> Yesterday (11/10/02)I was listening on 12m and I heard two hams
> discussing the "snake antenna". The ham who was advocating the
"snake"
> said it consists of 136 feet of any type coax, with the braid and
> center conductor shorted (soldered together) at the far end and the
> braid opened, just the center conductor soldered at the pl-259
> connector which connects to the xmitter. The coax is just laid on
the
> ground, not necessairly in a straight line (thus the name "snake").
He
> claimed it works on all bands from 160m to 6m. He did not claim it
was
> a really good antenna on 160 (the discussion was mostly about how to
> get on 160) but that it did work and was better than no 160m
antenna.
>
> Having a newly aquired spool of RG8X and no room for a conventional
> 160 antenna,I immediately had to try it. I attempted to break in to
an
> ongoing 160 ssb qso, and while they acknowledged that there "was
> someone there" the noise level (thunderstorms in their area) was too
> much for them to get good copy. The fact that I was only using 10
> watts (K2) probably didn't help, but I'll keep trying.
>

> Has anyone used this antenna? What results? Thanks.
>
> Rich K2CPE

2290. SWR meter as watt meter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 16:30:18 UTC
From: cprstn54zz@att.net
Message-ID: <3dcfd597.102136828@news-server.optonline.net>
Source record: 131529

For reasons of XYL appeasement, I am trying not to buy or make a QRP wattmeter.

My cheapo Radio Shack 21-525 SWR/Field Strength meter seems to reproducibly measure power on its "percent reflected" non-linear scale. (I.e. 50 watts shows as "25", whereas 10 watts shows as "5".)

By reversing the cables, I get full scale deflection with a 3 watt QRP radio with the sensitivity almost maxed out. It would appear that I could read down to 250 mWatts with this scale, plus or minus 50 mWatts -- which is good enough for my purposes.

Anyone else doing this with OK results?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

2291. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 16:33:48 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dcfdbef$0$195$ba620e4c@news.skynet.be>
Source record: 131530

I think it's not related to the behaviour of the GDO itself but to the frequency response of the whole system (antenna + line), each component having a different behaviour vs frequency, so the total behaviour is what Roy told. We have to investigate each component and the group.

I also guess if we replace the GDO by a signal generator and a voltmeter we will have the same results.

Am I right Roy ?

73 de ON5MJ - Jacques.

2292. Hamstick Dipole? Anybody using one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 16:50:46 UTC
From: Mike M <nospam@nospam.com>
Message-ID: <1C8C962F29D5692E.D4778B30A8CF64F7.D4B986CA71D5952E@lp.airnews.net>
Source record: 131531

Looks like the Dipole strung out under the eaves of the house may be out. Too much hassle and risk of ladder accidents. Can't affort a vertical or one of the Force 12's vertical dipoles at this time either. I've been reading about Hamsticks used in the dipole config. with their dipole mounting kit. One guy on HAMNET says he uses dual 40's with an antenna tuner with great results on all bands. Boy the price on these sure looks right.

Is anyone on here using one?

2293. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 17:15:59 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <kimvsu8oiplf5j2glv0f1i8vp356dl2kvr@4ax.com>
Source record: 131532

On Mon, 11 Nov 2002 14:10:39 +0000, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

>[...]
>
>That begs a whole bunch of other questions about the way a GDO works -
>or doesn't.
>
>We've probably all read how a GDO is supposed to behave when coupled to
>a simple parallel tuned circuit... but what about the more complicated
>cases, like the one above? Why does a GDO behave the way it does? What
>are the reasons behind a "sort of" resonance, a "shallow dip" and a
>"true" resonance?
>
>Has anyone ever published a real in-depth analysis?

Hi Ian,

The meter of a vacuum tube GDO measures the bias current flowing through the grid (generally discouraged in amplifiers) that comes as a consequence of positive potentials sustained in the attached, resonant tank circuit. The circuit operates in a clamping manner. When that resonant tank circuit is exposed to a load, that load robs the circuit of some of its power thus depressing the positive swings and current through the grid falls.

The complication is found in the nature of the load. A resistive load would uniformly rob power across the spectrum. A complex load will exhibit less than uniform characteristics. The GDO is a miniature Beachcombing Metal Detector with a VFO. You could also explore the difference between diamagnetic and magnetic characteristics exhibited by steel and brass. The only thing complicated about a GDO is keeping its output high and flat across frequency (done the old fashion way: manually twist a knob or exchange a coil to compensate).

Care should be taken to not mis-interpret a loading of the oscillator with the pulling of the oscillator (don't overcouple indiscriminately).

The instrument is quite simple, and for that reason a great deal of deduction may be applied to its presentation of results obtained in different scenarios.

73's
Richard Clark, KB7QHC

2294. Re: snake antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 17:52:46 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <6pqvsuo7t7usrbhsi63n4phooo6c1fe9db@4ax.com>
Source record: 131533

On 11 Nov 2002 05:05:19 -0800, rckchp@comcast.net (rich a.) wrote:

>The ham who was advocating the "snake"
>said it consists of 136 feet of any type coax, with the braid and
>center conductor shorted (soldered together) at the far end and the
>braid opened, just the center conductor soldered at the pl-259
>connector which connects to the xmitter. The coax is just laid on the
>ground, not necessairly in a straight line (thus the name "snake").

Hi Rich,

The other posters are somewhat aghast at the transmit application -
and for good reason. However, this service is not unknown and falls
into a class of operation known as NVI (or somesuch alphabet soup)
that denotes Near Vertical Incidence (or peak lobe) characteristic.

This was used in the desert the last time 'round with Iraq for local
communication. The Desert Storm version gave the appearance of a
capital H built in the form of two dipoles paralleled. This is all
rather a vague description due to my only using it once for a field
day years ago. But suffice it to say that there is a class of
antennas built on the ground, in the ground, and under water.

This sucker will exhibit gobs of loss warming the daisies, but if you
can pay the cost, you couldn't find a simpler antenna.

73's
Richard Clark, KB7QHC

2295. Re: SWR meter as watt meter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 18:16:36 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <77svsu4bd013emmb0qhqkvrt4kdt2sn73o@4ax.com>
Source record: 131534

On Mon, 11 Nov 2002 16:30:18 GMT, cprstn54zz@att.net (Ken) wrote:

>For reasons of XYL appeasement, I am trying not to buy or make a QRP
>wattmeter.
>
>My cheapo Radio Shack 21-525 SWR/Field Strength meter seems to
>reproducibly measure power on its "percent reflected" non-linear
>scale. (I.e. 50 watts shows as "25", whereas 10 watts shows as "5".)
>
>By reversing the cables, I get full scale deflection with a 3 watt QRP
>radio with the sensitivity almost maxed out. It would appear that I
>could read down to 250 mWatts with this scale, plus or minus 50 mWatts
>-- which is good enough for my purposes.
>
>Anyone else doing this with OK results?
>
>Ken KC2JDY
>

Hi Ken,

What you describe is a good general low power indicator. It is best to leave it at that. Adding numbers is suitable for "logging" the reading only, not for quantifying power, voltage, or current. The reason is, that at low powers there is not enough potential in the power available to the detector to keep it out of its non-linear region.

If you can obtain a reliable power meter to operate in series with yours; then you may calibrate your scale and apply those to your logged readings. In all honesty you need know only two points: the actual value for a full scale deflection, and the actual value for a midscale deflection. In this non-linear region that is bound to be far off the expected 50% mark. The solution to many problems comes in simply observing the relationship of the needle to these two cardinal points.

73's
Richard Clark, KB7QHC

2296. Re: Coax ground

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 19:08:12 UTC
From: Bill Ogden <ogden@us.ibm.com>
Message-ID: <3DD0001C.806B8580@us.ibm.com>
Source record: 131535

> All the commercial installations I've seen, ground the shield of the coax as
> they come off the tower. This is what I did at my shack. I also have the
> ground panel at the point the coax enters the house. See the Polyphaser web
> page. They the best information on what to do for lighting protection in the
> tec bulletins.

In the case of a half-sloper, the coax "comes off the tower" somewhere near the top of the tower. With a crankup tower, the coax drop is outside the tower. This somewhat unusual combination was the basis for my question. (The question was "Should I ground the coax shield at the bottom of the tower? It would then be radiation element parallel to the tower, I assume.)

Bill Ogden

2297. Re: SWR meter as watt meter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 20:12:49 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD00F41.C3006E27@ieee.org>
Source record: 131536

Ken wrote:
> My cheapo Radio Shack 21-525 SWR/Field Strength meter seems to
> reproducibly measure power on its "percent reflected" non-linear
> scale. (I.e. 50 watts shows as "25", whereas 10 watts shows as "5".)
>
> By reversing the cables, I get full scale deflection with a 3 watt QRP
> radio with the sensitivity almost maxed out. It would appear that I
> could read down to 250 mWatts with this scale, plus or minus 50 mWatts
> -- which is good enough for my purposes.
>
> Anyone else doing this with OK results?

Hi Ken, you are doing essentially the same thing as a Bird wattmeter
does when one uses a different slug for forward and reverse power.
It works just fine.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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2298. Re: Hamstick Dipole? Anybody using one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 20:15:48 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD00FF4.ECE22BE8@ieee.org>
Source record: 131537

Mike M wrote:
> One guy on HAMNET says he uses dual 40's with an antenna
> tuner with great results on all bands.

Great compared to what? The efficiency of such an antenna
on 40m is in the ballpark of 8%. Put 100 watts into it for
30 seconds and then feel the top of the coil but be careful
when you do it. It's like grabbing a dummy load.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2299. High Serria 1800DX

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 20:23:56 UTC
From: Bill East <beast@pcs.mb.ca>
Message-ID: <xmUz9.6489$i%.1631143@localhost>
Source record: 131538

What do think of this mobile antenna ?. Where is it installed on your vehicle.? What mounting hardware did you use to mount the screwdriver antenna?
What rig and what acc. are you using to tune the screwdriver?What performance on HF and 6 meters are you experiencing with this antenna.Anything to help be
decide between the high serria or stealth .
Thinking of getting a screwdriver.
thanks,
Bill

2300. Re: snake antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 21:02:43 UTC
From: Walter AG5P <waltercw@accessus.net>
Message-ID: <MUKdnVyTf7YGh02gXTWc3g@accessus.net>
Source record: 131539

Richard, you are correct about NVIS antennas, and they
do work. If those H-dipoles were around 10 feet in the
air and had reflector/counterpoise wires laying on the
ground, then 40 thru 160 meters they are real players.
Of course a horizontal loop or a simple dipole with a
counterpoise on the ground will do the same thing.

Trouble with using a snake antenna for transmitting is
that it's really a floating no ground antenna. So without the
services of a ground lead (which I will not use) or
counterpoise it is probably at best a worm warmer or a
long dummy load. I would venture to say that a regular
dipole laying on the ground would be a better xmt/rcv
antenna if there was no other option.

The snake antenna is great for DXing on the Top Band
and there are lots of folks that use them on the upper
bands on Receive only.

73...Walter, AG5P

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:6pqvsuo7t7usrbhsi63n4phooo6c1fe9db@4ax.com...
> On 11 Nov 2002 05:05:19 -0800, rckchp@comcast.net (rich a.) wrote:
>
> >The ham who was advocating the "snake"
> >said it consists of 136 feet of any type coax, with the braid and
> >center conductor shorted (soldered together) at the far end and the
> >braid opened, just the center conductor soldered at the pl-259
> >connector which connects to the xmitter. The coax is just laid on
the
> >ground, not necessairly in a straight line (thus the name "snake").
>
> Hi Rich,
>
> The other posters are somewhat aghast at the transmit application -
> and for good reason. However, this service is not unknown and falls
> into a class of operation known as NVI (or somesuch alphabet soup)
> that denotes Near Vertical Incidence (or peak lobe) characteristic.
>
> This was used in the desert the last time 'round with Iraq for local
> communication. The Desert Storm version gave the appearance of a
> capital H built in the form of two dipoles paralleled. This is all
> rather a vague description due to my only using it once for a field
> day years ago. But suffice it to say that there is a class of

> antennas built on the ground, in the ground, and under water.
>
> This sucker will exhibit gobs of loss warming the daisies, but if
you
> can pay the cost, you couldn't find a simpler antenna.
>
> 73's
> Richard Clark, KB7QHC

2301. Re: Coax ground

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 21:54:33 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <aqp8v1$qto@r02n01.cac.psu.edu>
Source record: 131540

Hi Bill:

We are talking about two different things. But, connecting the shield of the coax to the tower in more than one place will not change the performance of a sloper. In a sloper the tower is the other half of the antenna. ON4UN in his "Low band DXing" book makes the claim that in a sloper, the tower does most of the radiating. Something like a top feed grounded vertical and the wire acts as a single elevated radial.
I don't know if that is true, but for lighting protection, connecting the shield of the coax at the point the coax leaves the tower is common practice.
ON4UN's book is full of very useful information and I think is a must read for hams interested in antennas for the lower ham bands.

--
John Passaneau, W3JXP
Physics Dept. Electronics Shop
Penn State University
104 Davey Lab, University Park , Pa. 16802
814.863.4297, jxp16@psu.edu

"Bill Ogden" <ogden@us.ibm.com> wrote in message
news:3DD0001C.806B8580@us.ibm.com...
> > All the commercial installations I've seen, ground the shield of the coax as
> > they come off the tower. This is what I did at my shack. I also have the
> > ground panel at the point the coax enters the house. See the Polyphaser web
> > page. They the best information on what to do for lighting protection in the
> > tec bulletins.
>
> In the case of a half-sloper, the coax "comes off the tower" somewhere near the
> top of the tower. With a crankup tower, the coax drop is outside the tower.
> This somewhat unusual combination was the basis for my question. (The question
> was "Should I ground the coax shield at the bottom of the tower? It would then
> be radiation element parallel to the tower, I assume.)
>
> Bill Ogden
>

2302. Wind Load of TR-2

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 22:20:49 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailnospamorama.com>
Message-ID: <pLXz9.13348$IE2.12190@news.bellsouth.net>
Source record: 131547

I know the TR-2 is a light duty (TV antenna) rotor, but how many square feet (wind load) of antenna should it handle.

Tnx

--
73,
Chuck
KE4ETH
Remove the obvious from Email.

2303. Re: Hamstick Dipole? Anybody using one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 22:26:51 UTC
From: Pete Holden <peholden@attbi.com>
Message-ID: <L8Wz9.1276$dD.555@sccrnsc01>
Source record: 131541

Yep. I use a 20 meter Hamstick on my camper mounted on the roof. It works great. Cheap, good product, durable. What more could you ask. Sure, if you could afford a zillion element quad on a 100 foot tower it would be a better choice, but....

I've never had a problem with mine but DO take their advice and don't cut the whip before you're sure about the tuning. I did and had to add a piece of wire to the tip (really dumb).

Pete KATZK

2304. Re: Hamstick Dipole? Anybody using one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 22:29:18 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD02F3E.ADA9AE01@cwis.net>
Source record: 131544

Mike,
That's a fairly common thing to do, and there's
been a lot of people try it. They usually don't
keep it too long though. Using two 'Hamsticks' will
work as a dipole for the band it's made for. Using
it on other bands isn't going to work too well at
all. A dipole made like that is going to have a very
narrow 2:1 bandwidth, you won't 'move' frequency
far with out a tuner. It does work though...
'Doc

2305. Need Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 22:29:50 UTC
From: Pete Holden <peholden@attbi.com>
Message-ID: <ybWz9.1250$L75.1790@rwcrnsc51.ops.asp.att.net>
Source record: 131543

I'm looking for a vertical antenna to mount on my roof. Multiband yes but 20-15-10 would be fine. I don't want something huge like a 40-20-15-10 etc.

Any suggestions?

Thanks, Pete KATZK

2306. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 22:35:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ut0fla660fk2c1@corp.supernews.com>
Source record: 131545

With a signal generator and voltmeter, you can find the magnitude of the impedance at the cable input. That's more information than you get from a GDO, but still not enough to determine where the antenna is resonant. With the impedance magnitude and a Smith chart or computer program, you might be able to make some guesses, though, since you've now reduced the number of possible frequencies. And with a handful of capacitors and/or inductors of known value to put in series with the generator to make additional measurements, you could find the frequency you're looking for.

One caution, though. Any time you're trying to determine an antenna's impedance by looking into a transmission line, you have to be very aware of the effect of cable loss, even if you're using a multiple of a half wavelength. The effect is the least if the cable's impedance is close to the impedance you're measuring. But if the cable's impedance is quite different from the antenna impedance, even just a little loss will cause a surprisingly large measurement error. The effect of loss is to skew the input impedance toward the characteristic impedance of the cable, which is why you'll have the least problem if the cable is approximately matched to the load. You can still make reasonably accurate measurements if you do the imedance transformation with a program capable of doing lossy-line calculations and if you know the line's loss. But as the loss gets higher, accuracy suffers as you get more and more isolated from the antenna by the line's loss. That is, large changes in the antenna impedance cause smaller changes at the input as the line gets lossier, so small measurement errors translate into large errors in antenna impedance.

Of course, the presence of common mode currents on the feedline is another whole problem.

Occasionally I get a query from someone wondering why his measurements of antenna impedance don't match EZNEC's predictions. Investigation often shows the reason to be that the measurements aren't very good. Few people appreciate just how difficult it can be to make even moderately accurate measurements of antenna impedance, let alone such things as gain and pattern. It's fortunate that we can so often get by without really knowing what the impedance, gain, or pattern of our antennas really are.

Roy Lewallen, W7EL

ON5MJ wrote:
> I think it's not related to the behaviour of the GDO itself but to the
> frequency response of the whole system (antenna + line), each component
> having a different behaviour vs frequency, so the total behaviour is what
> Roy told. We have to investigate each component and the group.

>
> I also guess if we replace the GDO by a signal generator and a voltmeter we
> will have the same results.
>
> Am I right Roy ?
>
> 73 de ON5MJ - Jacques.
>
>

2307. Re: Coax ground

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-11 22:37:54 UTC
From: Bill Ogden <ogden@us.ibm.com>
Message-ID: <3DD03142.C6960ACD@us.ibm.com>
Source record: 131542

Yes, his book is one of those that states that coax should *always* be run inside the tower. Unfortunately, this overlooks the large number of crankup towers that are used. Perhaps he is a little too dogmatic in some statements.

If I ground all the coax at the bottom of the tower, this increases the number of connectors involved (and each has loss(?) and is a point of failure.):

Quad (top of tower)
quad element to coax switch (on top of tower) one connector (+
actual loop connection)
coax switch to bottom of tower two connectors
bottom of tower to lightening protection two connectors
lightning protection to coax switch at rig two connectors
coax switch to amp two
connectors
amp to rig two
connectors

Half sloper: same, excluding the coax switch on the tower.

At the moment, I do not have any lightning protection, so I have two fewer connectors than listed here. For someone who *hates* installing these connectors, this is too many.

Regards,

Bill
W2WO

John Passaneau wrote:

> Hi Bill:
>
> We are talking about two different things. But, connecting the shield of the
> coax to the tower in more than one place will not change the performance of
> a sloper. In a sloper the tower is the other half of the antenna. ON4UN in
> his "Low band DXing" book makes the claim that in a sloper, the tower does
> most of the radiating. Something like a top feed grounded vertical and the
> wire acts as a single elevated radial.
> I don't know if that is true, but for lighting protection, connecting the
> shield of the coax at the point the coax leaves the tower is common
> practice.
> ON4UN's book is full of very useful information and I think is a must read
> for hams interested in antennas for the lower ham bands.
>
> --
> John Passaneau, W3JXP

> Physics Dept. Electronics Shop
> Penn State University
> 104 Davey Lab, University Park , Pa. 16802
> 814.863.4297, jxp16@psu.edu
>
> "Bill Ogden" <ogden@us.ibm.com> wrote in message
> news:3DD0001C.806B8580@us.ibm.com...
> > > All the commercial installations I've seen, ground the shield of the
> coax as
> > > they come off the tower. This is what I did at my shack. I also have the
> > > ground panel at the point the coax enters the house. See the Polyphaser
> web
> > > page. They the best information on what to do for lighting protection in
> the
> > > tec bulletins.
> >
> > In the case of a half-sloper, the coax "comes off the tower" somewhere
> near the
> > top of the tower. With a crankup tower, the coax drop is outside the
> tower.
> > This somewhat unusual combination was the basis for my question. (The
> question
> > was "Should I ground the coax shield at the bottom of the tower? It would
> then
> > be radiation element parallel to the tower, I assume.)
> >
> > Bill Ogden
> >

2308. Help with Multi Band Quad Hub

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 00:25:15 UTC
From: Martins <martins@dodo.com.au>
Message-ID: <3dd04a67@news.comindico.com.au>
Source record: 131546

Hi
I have a Multi Band Quad Hub marked " CLARK VK3AS " with some parts missing
Could someone help me with some info.
Thanks you for your time
Regards Craig VK2ZCM
martins@dodo.com.au

2309. Re: Need Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 00:34:41 UTC
From: dt@dt.prohosting.com
Message-ID: <upttb7hi6.fsf@dt.prohosting.com>
Source record: 131548

>>>>> "Pete" == Pete Holden <peholden@attbi.com> writes:

Pete> I'm looking for a vertical antenna to mount on my roof.
Pete> Multiband yes but 20-15-10 would be fine. I don't want
Pete> something huge like a 40-20-15-10 etc.

If you're into building your own, I have a design you might like.
It's inexpensive to make, not bulky, and trapless.

http://dt.prohosting.com/hacks/antenna

David
http://www.qrz.com/n5izu

2310. apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 00:41:10 UTC
From: carkenord@juno.com
Message-ID: <4346b55e.0211111641.779500ed@posting.google.com>
Source record: 131549

I can build a 2 element "delta-loop" antenna......(each element an equilateral triangle.)

This would be for 15 meter ssb.

I live in Colorado, and this antenna will be for dx'ing.

I can make this antenna with the apex up, fed at the middle of the base/bottom.

Or, I can make it apex down, fed at the apex.

In either case, apex up or down, the feedpoint will be about 15 feet above ground....feeding with 50 ohm coax.

Which configuration would be better for dx'ing from Colorado?

Thank you..... Lee Carkenord KA0FPJ

2311. Re: DIpole mounting question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 00:50:56 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <QfYz9.95382$dn3.3745915@twister.southeast.rr.com>
Source record: 131550

If you have any trees in the yard, try a wire vertical supported with a
piece of PVC. I've built 10/15/20m verticals this way (its a W6SAI design)
that use rotator cable cut to quarter wave as elevated verticals. Camouflage
paint the PVC and it will work very well.

Good luck and Good DX.

Bill, W4WNT

"Mike M" <nospam@nospam.com> wrote in message
news:FD2CFD3C0F7EC3F0.344085C68AB7705C.B818F74DAE0C4896@lp.airnews.net...
> I'm thinking about antennas now that I've decided to get my General.
> Should be next month.
>
> I live in a fairly restricted suburban neighborhood. I'm sure I could
> get away with a conservative antenna like one of the Force 12 vertical
> dipoles of maybe some other vertical. But in looking around and reading
> the dipole looks a heck of a lot cheaper and performance wise a good
> start.
>
> Question is can I mount this under the eaves of my house without any
> significant degredation in performance? I have a perfect 70 ft. run if I
> can get away with doing this. How about over the roof? I can camouflage
> these very well. I know in a perfect world that away from the house is
> ideal but I can't get away with that.
>
> Any ideas?
>

2312. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 00:57:08 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <EIYz9.95384$dn3.3747614@twister.southeast.rr.com>
Source record: 131551

Yes, elevated radials work well and you don't need as many of them. 4-6
elevated radials made as you describe should work well. You can also make a
wire vertical supported by PVC pipe (triband works). Much cheaper!

Good luck and Good DX.

Bill, W4WNT

"Jason Hissong" <jhisson1@columbus.rr.com> wrote in message
news:4c442fa0.0211062012.76fbc00b@posting.google.com...
> Hi gang,
>
> I have been looking in the back yard for some ideas about putting up a
> vertical antenna... I will have a tower, so I will have a beam.
> However, having a vertical may help me out with having a good,
> all-purpose, go-to omnidirectional antenna.
>
> Here is my idea.... my back yard is about 75' by 50'. I was
> considering putting up a 5BTV vertical up at about 10 feet. I would
> buy some rotator cable to put up 4 radials for each band. (I would
> have to probably bend the 80M radials to make it fit) With it being
> 10 feet high, that would keep the radials out of the reach of little
> hands (and me running into it). I would tie off the radials in four
> corners using the fence (or just have 4 poles in the ground away from
> the fence) Anybody have a similar arrangement? How has it performed
> for you?
>
> Also, if I used a vertical dipole instead, (like the Eagle DX) would
> radials improve the performance of the vertical dipole? I have a
> friend that is willing to sell me his for about 50% of the new price.
>
> Thanks.... setting up (and planning) antenna systems is a ton of fun!
>
> Jason Hissong
> N8XE

2313. Re: Need Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 01:13:08 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <EAYz9.679$XF5.161938@news2.west.cox.net>
Source record: 131552

The Cushcraft R5 at URL:
http://www.cushcraft.com/support/pdf/r5.pdf
No longer made but used -- seen em for $150 or so. This worked very well for me. Covers all bands 20 thru 10M, height 17 feet plus mounting mast.
No radials needed as it is a half wave end fed design.

Good luck es DX

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"Pete Holden" <peholden@attbi.com> wrote in message
news:ybWz9.1250$L75.1790@rwcrnsc51.ops.asp.att.net...
> I'm looking for a vertical antenna to mount on my roof. Multiband yes but
> 20-15-10 would be fine. I don't want something huge like a 40-20-15-10
etc.
>
> Any suggestions?
>
> Thanks, Pete KA�TZK
>
>

2314. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 02:00:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ut0rmagehsb86a@corp.supernews.com>
Source record: 131553

From your description of the operation, it sounds like the depth of the dip would depend primarily on the magnitude of the impedance across the coupling loop. If so, the "sort of" resonance at 20.96 MHz in my example would give a shallow dip, the resonance at 23.33 MHz would give a deep dip, and the parallel resonance at 19.45 MHz would cause the meter indication to peak rather than dip. Which would be interesting to watch, but providing no useful information for the problem at hand that I can see.

The only "GDO" I've ever owned is a Heathkit "Tunnel Dipper". It was flaky at best -- the output changed level across the band, it would stop oscillating altogether if too heavily loaded, and was generally unreliable. So my experience is very limited.

Roy Lewallen, W7EL

Richard Clark wrote:
>
> Hi Ian,
>
> The meter of a vacuum tube GDO measures the bias current flowing
> through the grid (generally discouraged in amplifiers) that comes as a
> consequence of positive potentials sustained in the attached, resonant
> tank circuit. The circuit operates in a clamping manner. When that
> resonant tank circuit is exposed to a load, that load robs the circuit
> of some of its power thus depressing the positive swings and current
> through the grid falls.
>
> The complication is found in the nature of the load. A resistive load
> would uniformly rob power across the spectrum. A complex load will
> exhibit less than uniform characteristics. The GDO is a miniature
> Beachcombing Metal Detector with a VFO. You could also explore the
> difference between diamagnetic and magnetic characteristics exhibited
> by steel and brass. The only thing complicated about a GDO is keeping
> its output high and flat across frequency (done the old fashion way:
> manually twist a knob or exchange a coil to compensate).
>
> Care should be taken to not mis-interpret a loading of the oscillator
> with the pulling of the oscillator (don't overcouple
> indiscriminately).
>
> The instrument is quite simple, and for that reason a great deal of
> deduction may be applied to its presentation of results obtained in
> different scenarios.
>
> 73's

> Richard Clark, KB7QHC

2315. Re: Hamstick Dipole? Anybody using one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 03:20:11 UTC
From: Lars Edwards <larse@hiwaay.net>
Message-ID: <ut0sobaid0vdc8@corp.supernews.com>
Source record: 131554

Hello Mike,

I'm using a 20 meter dipole made from 2 Hamsticks.

It's up only ~ 12 feet and is getting out quite well.

I routinely work into Europe on cw using a FT-817 at the 2.5 watt setting.
Have also worked some into Africa, South America and Russia.

This started out as a project for a portable and vacation operation type of
antenna and has worked out well enough that I have left it up and use it
most of the time.

I'll be interested in hearing more about using a 40 meter version for
multiband operation.

Lars
WB2ORD

"Mike M" <nospam@nospam.com> wrote in message
news:1C8C962F29D5692E.D4778B30A8CF64F7.D4B986CA71D5952E@lp.airnews.net...
> Looks like the Dipole strung out under the eaves of the house may be out.
> Too much hassle and risk of ladder accidents. Can't affort a vertical
> or one of the Force 12's vertical dipoles at this time either. I've been
> reading about Hamsticks used in the dipole config. with their dipole
> mounting kit. One guy on HAMNET says he uses dual 40's with an antenna
> tuner with great results on all bands. Boy the price on these sure looks
> right.
>
> Is anyone on here using one?
>
>

2316. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 03:49:44 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD07A58.F8AA7983@ieee.org>
Source record: 131555

Roy Lewallen wrote:
> Occasionally I get a query from someone wondering why his measurements
> of antenna impedance don't match EZNEC's predictions. Investigation
> often shows the reason to be that the measurements aren't very good. Few
> people appreciate just how difficult it can be to make even moderately
> accurate measurements of antenna impedance, let alone such things as
> gain and pattern. It's fortunate that we can so often get by without
> really knowing what the impedance, gain, or pattern of our antennas
> really are.

Hi Roy, as you know, I vary the length of my ladder-line to achieve
a tunerless match to my transmitter. If I know the length of the
ladder-line, its Z0, and its VF, then using a Smith Chart, I can
get a very close approximation to the antenna feedpoint impedance
by first finding a current maximum point on the ladder-line.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2317. Hate to ask

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 04:31:10 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <iu%z9.2961$ME6.2119@rwcrnsc53>
Source record: 131556

Pretty basic question. I should know this but..... the heck with excuses, here it is.
What value of coil (in Henrys) would give me a reactance of 862 ohms at 1070 kHz?

2318. Re: Extracting Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 04:44:14 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <ut11p19h6ishb4@corp.supernews.com>
Source record: 131557

Or at least a bottle of what your drinking prior to seeing them... :>)

"CAM" <Cecil.A.Moore@ieee.org> wrote in message
news:3DCEC429.BBA6E08C@ieee.org...
> "Fred Hambrecht Sr." wrote:
> > You win, pick up the marbles... :>)
>
> Fred, haven't you ever been to Alpha Centuri? I've got some strange
> looking friends who go there regularly. Shall I send them over to
> your address about 2am some morning?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2319. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 05:28:22 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <Wj0A9.481$7d.279758@monger.newsread.com>
Source record: 131558

"Wes Stewart" <n7ws@nowhere.com> wrote in message
news:pj9qsucep6dmifb2jd6q1rrftn0nih0pcb@4ax.com...
> On Sat, 09 Nov 2002 08:36:25 GMT, "Roger Halstead" <rdhalste@tm.net>
> wrote:
>
> |
> |"Roy Lewallen" <w7el@eznec.com> wrote in message
> |news:uso9ov2b01tb27@corp.supernews.com...
> |> After some thought, I can't think of any good reason not to ground the
> |> water system. What are the negative ramifications you're referring to?
> |>
> |> Obviously the water system shouldn't be used to provide the ground
> |> connection if it's plastic, but assuming that your power system is
> |> otherwise properly grounded, what's the harm in connecting the water
> |> pipes (or any other metallic objects) to ground?
> |
> |Under normal circumstances, I can't think of a thing.
> |
> |It's that otherwise in there<:-))
> |If for some reason the station ground should become disconnected, your
> |electrical system is now connected to the water system and under some
> |conditions put a healthy voltage onto the water lines. One guy was darn
> |near electrocuted in a small town NW of here when he disconnected the
water
> |system which had the electrical system tied to it. In his case there was
no
> |other ground. When he went to put the two connectors back together the
> |ground went right through him. Luck had it that he fell and broke
contact.
>
> The National Electrical Code (1981) states:
>
> "250-80 Bonding of Piping Systems.
>
> (a) Metal Water Piping. The interior metal water piping system shall
> always be bonded to the service equipment enclosure, the grounded
> conductor at the service, the grounding electrode where of sufficient
> size, or to the one or more grounding electrodes used...."

The inpector told me not to as the only metal is at the meter and valve.
I's plastic leaving the house and plastic beyond the shutoff valve.
--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com

N833R World's oldest Debonair? (S# CD-2)

>
> In the case of the well, the code also requires a supplemental
> grounding electrode to prevent the very occurrence you provide as an
> example.
>
> |>
> |However bearing thta in mind with a metal water system, there are
supposed
> |to be *two* 8 foot ground rods, 6 feet apart, connected to the ground
just
> |outside (on a 200 amp service). If the soil dries out the the water
system
> |can become the sole ground. This is not bad as it's serving its purpose.
> |It's just a "potential" danger for the unsuspecting.
>
> The point of bonding and grounding is to have every metallic object
> that a person might contact be at the same potential as the earth he
> is standing on.

2320. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 05:30:03 UTC
From: Zoran Brlecic <WA7AA@attbi.com>
Message-ID: <3DD091A4.1040701@attbi.com>
Source record: 131559

Lee Carkenord wrote:
> I can build a 2 element "delta-loop" antenna......(each element an
> equilateral triangle.)
>
> This would be for 15 meter ssb.
>
> I live in Colorado, and this antenna will be for dx'ing.
>
> I can make this antenna with the apex up, fed at the middle of the
> base/bottom.
>
> Or, I can make it apex down, fed at the apex.
>
> In either case, apex up or down, the feedpoint will be about 15 feet
> above ground....feeding with 50 ohm coax.
>
>
> Which configuration would be better for dx'ing from Colorado?

Both will suck ass for dxing, since your 15m antenna is only 15 feet above ground. If you could raise it any higher, then things would start to matter. The least what you can do is make it apex down, since then one of the triangle sides is as far as possible from the ground.

Don't bother making it a multi-element beam at this height because it will never work any better than a single element.

Height to antennas is what location is to real estate.

73 ... Zoran WA7AA

2321. Re: power line SWR

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 05:30:35 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <%l0A9.482$7d.279907@monger.newsread.com>
Source record: 131560

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:540-3DCFC674-63@storefull-2317.public.lawson.webtv.net...
> Ralph Mowery wrote:
> "I might have to look it up but I only calculate about 1400 miles not
> counting the velocity factor :-) "
>
> That`s close enough.

but...how do you get it up half wave??

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)
>
> The wavelength = 186,000 mi/sec / 60 Hz
> That`s about 3100 miles. Half is 1550 mi.
> Shorten the distance for velocity slowed by the wire and its
> environment, and Ralph`s diatance is about right.
>
> 1400 miles is an impractical transmission distance. About 1 KV per mile
> is needeed for efficiency.1.4 million volts is too hard to insulate,
> even using d-c.
>
> Best regards, Richard Harrison, KB5WZI
>

2322. K9AY Matching Transformer Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 05:40:16 UTC
From: Jim <jbollit@ix.netcom.com>
Message-ID: <aqq47srif1@slb6.atl.mindspring.net>
Source record: 131561

I set up a single loop K9AY to use as a low noise antenna to phase with.

I wound an impedance matching transformer with a 9:1 ratio.

I wound the primary on a Mag inc W material core using 15 turns and wound a separate secondary of 5 turns. I connected the coax to the 5 turn winding and one end of the 15 turn winding to the end of the K9AY and the other end to a ground stake. I tried the antenna and noticed that signal level were significantly down to what I expected. I then wound an autotransformer type of matching transformer with 15 turns of wire with the coax tap 5 turns up from the ground connection. The signal levels were 20 dB higher than with the isolated transformer.

I want to use an isolated transformer for noise purposes, but the signal level is to low.

Any help appreciated.

Jim

2323. Re: Coax ground

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 05:56:59 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <LK0A9.483$7d.281155@monger.newsread.com>
Source record: 131562

"Bill Ogden" <ogden@us.ibm.com> wrote in message
news:3DD03142.C6960ACD@us.ibm.com...
> Yes, his book is one of those that states that coax should *always* be run
> inside the tower. Unfortunately, this overlooks the large number of
crankup
> towers that are used. Perhaps he is a little too dogmatic in some
statements.
>
> If I ground all the coax at the bottom of the tower, this increases the
number
> of connectors involved (and each has loss(?) and is a point of failure.):

No connectors are needed.
They recomend stripping the jacket back and grounding the braind right to
the tower and then grounding the tower. They recommend against inserting
connections, but that can make sealing the cable a bit more complicated.
Check the PolyPhaser site.

I use two slopers on 75 and 1 on 40. All coax runs on the outside of the
tower. The tower in this case has little to do with the radiation. I use
half wave center fed dipoles at close to a 45 degree angle.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)
>
> Quad (top of tower)
> quad element to coax switch (on top of tower) one connector (+
> actual loop connection)
> coax switch to bottom of tower two
connectors
> bottom of tower to lightening protection two
connectors
> lightning protection to coax switch at rig two
connectors
> coax switch to amp two
> connectors
> amp to rig
two
> connectors
>
> Half sloper: same, excluding the coax switch on the tower.
>
> At the moment, I do not have any lightning protection, so I have two fewer

> connectors than listed here. For someone who *hates* installing these
> connectors, this is too many.
>
> Regards,
>
> Bill
> W2WO
>
>
>
> John Passaneau wrote:
>
> > Hi Bill:
> >
> > We are talking about two different things. But, connecting the shield of
the
> > coax to the tower in more than one place will not change the performance
of
> > a sloper. In a sloper the tower is the other half of the antenna. ON4UN
in
> > his "Low band DXing" book makes the claim that in a sloper, the tower
does
> > most of the radiating. Something like a top feed grounded vertical and
the
> > wire acts as a single elevated radial.
> > I don't know if that is true, but for lighting protection, connecting
the
> > shield of the coax at the point the coax leaves the tower is common
> > practice.
> > ON4UN's book is full of very useful information and I think is a must
read
> > for hams interested in antennas for the lower ham bands.
> >
> > --
> > John Passaneau, W3JXP
> > Physics Dept. Electronics Shop
> > Penn State University
> > 104 Davey Lab, University Park , Pa. 16802
> > 814.863.4297, jxp16@psu.edu
> >
> > "Bill Ogden" <ogden@us.ibm.com> wrote in message
> > news:3DD0001C.806B8580@us.ibm.com...
> > > > All the commercial installations I've seen, ground the shield of the
> > coax as
> > > > they come off the tower. This is what I did at my shack. I also have
the
> > > > ground panel at the point the coax enters the house. See the
Polyphaser
> > web
> > > > page. They the best information on what to do for lighting

protection in
> > the
> > > > tec bulletins.
> > >
> > > In the case of a half-sloper, the coax "comes off the tower" somewhere
> > near the
> > > top of the tower. With a crankup tower, the coax drop is outside the
> > tower.
> > > This somewhat unusual combination was the basis for my question. (The
> > question
> > > was "Should I ground the coax shield at the bottom of the tower? It
would
> > then
> > > be radiation element parallel to the tower, I assume.)
> > >
> > > Bill Ogden
> > >
>

2324. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 06:50:57 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aqq8ch$du3$0@208.206.142.76>
Source record: 131563

Roy Lewallen wrote:
>
> You just don't have a clue what "dry winter" means here, do you?
>
> Roy Lewallen, W7EL
>
> CAM wrote:
> > Roy Lewallen wrote:
> >
> >>Just goes ta show ya --
> >
> >
> > Hey Roy, I heard on the weather channel that, because of
> > El Nin~o, you area will have a dry winter. That means you
> > can switch to ladder-line. :-)

To take a few liberties with Mark Twain, "The wettest winter I ever spend was a dry winter in the Pacific Norwhwest".

Dick

2325. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 07:22:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ut1eifmqn9jf2@corp.supernews.com>
Source record: 131566

Portland's forcast, from the _Oregonian_, Nov. 11:

"Breezy Monday with more clouds than sun as well as a few showers. High 56. Windy and mild Monday night with periods of rain, some of the rain will be heavy at times. Low 49. Windy Tuesday with rain tapering to showers. High 58. Clouds and sun Wednesday; a stray shower. High 56."

Y'see, in a "wet" winter, the rain wouldn't taper to showers, and there wouldn't be any sun on Wednesday.

The 5-day forecast shows the weather getting back to rain on Thursday and Friday. You can see 'em lining up out there in the Pacific at http://www.ssec.wisc.edu/data/west/latest_westir.jpg.

Roy Lewallen, W7EL

Dick Carroll wrote:
>
> To take a few liberties with Mark Twain, "The wettest winter I ever
> spend was a dry winter in the Pacific Norwhwest".
>
> Dick

2326. Magnet for Lightning? A POSSIBLE SOLUTION

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 07:40:27 UTC
From: John Smith <someone@microsoft.com>
Message-ID: <aqqapt$om5$1@newstoo.ericsson.se>
Source record: 131564

Ok Garry, I believe you are perhaps a little bit paranoid about lightning. One thing I have learned is that you don't fly models if you dont want a crash. You don't erect metal in the air if you don't want lightning.

What you can do is to use an optical isolator so the antenna has no electrical connection between the bit in the air and your valuable receiver. When you want to transmit, then plug in the transciever, but under normal circumstances, just leave the opto-isolator in circuit.

I first read about the technique as a solution for preventing RF radiation from vintage regenerative receivers. Just an LED and photo-cell work very well through most of the HF band. The only complicated bit is supplying the LED with a few mA of operating current.

This will not help you if you get a direct strike, but in that event, nothing will.

BR Harry

2327. FS 4 element 40 mtr beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 08:05:41 UTC
From: Bill <willbryant@msn.com>
Message-ID: <pD2A9.313103$8o3.9295928@twister.austin.rr.com>
Source record: 131565

I have a hygain 40 meter beam that has never been put together. I have had it for about 30 years. The box has long since wasted away but i think all of the parts are still there. Any one interested? Bill

2328. Don't blame Mark Twain (was: Re: Rhombic for UHF)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 08:42:17 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-1211020042170001@bni030qny8kc.bc.hsia.telus.net>
Source record: 131567

In article <aqq8ch$du3$0@208.206.142.76>, Dick Carroll <dixie@townsqr.com>
wrote:

> To take a few liberties with Mark Twain, "The wettest winter I ever
> spend was a dry winter in the Pacific Norwhwest".

As a resident of an eastern (therefore colder, and rainier/snowier) suburb
of Vancouver, BC, Canada I can appreciate this. However, see

<http://www.boondocksnet.com/twaintexts/quotes_not_twain.html>

and the article

Kim A. McDonald, "Many of Mark Twain's Famed Humorous Sayings Are Found to
Have Been Misattributed to Him," Chronicle of Higher Education (Sept. 4,
1991), A8.

(Entering "I ever spent" + "Mark Twain" into Google confirmed my suspicions.)

Incidentally, for a good description of why Google works so well see pp.
256-260 of Howard Anton and Robert C. Busby's "Contemporary Linear
Algebra". Some of the bugs in this section of the text were removed by
yours truly -- see p. x of the Preface of the same book.

David, ex-W8EZE, inveterate skeptic, and sometime math textbook accuracy checker

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

2329. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 09:24:57 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3DD0C8E9.9F08E38B@oda.com.au>
Source record: 131568

Roger Halstead wrote:

> > The National Electrical Code (1981) states:
> >
> > "250-80 Bonding of Piping Systems.
> >
> > (a) Metal Water Piping. The interior metal water piping system shall
> > always be bonded to the service equipment enclosure, the grounded
> > conductor at the service, the grounding electrode where of sufficient
> > size, or to the one or more grounding electrodes used...."
>
> The inpector told me not to as the only metal is at the meter and valve.
> I's plastic leaving the house and plastic beyond the shutoff valve.

Different rules here, but they require the same thing (for the same reasons).

Difference is perhaps, that the inspector's here aren't supposed to make up the rules on the fly. To do so would expose the electrician and the testing authority to the risk of manslaughter charges if someone was killed and the coroner found that the breach of wiring rules contributed to the outcome.

Electricians have been convicted of manslaughter in this durisdiction when their shoddy work contributed to a fatality.

Of course if one was not qualified (not licenced) and did such things, it might be more difficult for the prosecutor to make manslaughter charges stick.

Owen

> >
> > The point of bonding and grounding is to have every metallic object
> > that a person might contact be at the same potential as the earth he
> > is standing on.

2330. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 09:45:35 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dd0cdc1$0$86527$ba620e4c@news.skynet.be>
Source record: 131469

Also apex down is easier for a gamma match.

73 de ON5MJ - Jacques.

2331. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 11:39:29 UTC
From: Larry Gauthier <larryg_at_ismi.net>
Message-ID: <ut1q3hlqgl4ad4@corp.supernews.com>
Source record: 131470

I feed my vertical delta loop 1/4 wavelength down from the apex, providing vertical polarization and better take-off angle for DX. And if you feed it with 1/4 wave of 75 ohm coax (as a balun) you will be able to get the SWR down to 1:1.

Mine looks kinda' like this (forgive text-res graphics), seen from the side:

```
+
| \
| \
| \
| \
| +
| /
=fp /
| /
| /
+
```

-larry
K8UT
"Lee Carkenord" <carkenord@juno.com> wrote in message
news:4346b55e.0211111641.779500ed@posting.google.com...
> I can build a 2 element "delta-loop" antenna......(each element an
> equilateral triangle.)
>
> This would be for 15 meter ssb.
>
> I live in Colorado, and this antenna will be for dx'ing.
>
> I can make this antenna with the apex up, fed at the middle of the
> base/bottom.
>
> Or, I can make it apex down, fed at the apex.
>
> In either case, apex up or down, the feedpoint will be about 15 feet
> above ground....feeding with 50 ohm coax.
>
>
> Which configuration would be better for dx'ing from Colorado?
>
> Thank you..... Lee Carkenord KA0FPJ

2332. Re: Don't blame Mark Twain (was: Re: Rhombic for UHF)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 11:52:54 UTC
From: "Copper.net" <davidw@copper.net>
Message-ID: <DY5A9.6553$P71.1891227@newsfeed.slurp.net>
Source record: 131471

Is not skepticism ultimately an untenable position?

73, Dave, N3HE

2333. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 13:09:38 UTC
From: Bill M <exray@no>
Message-ID: <ut1v6ibuco1i7c@corp.supernews.com>
Source record: 131472

Roger Halstead wrote:
>
> > The National Electrical Code (1981) states:
> >
> > "250-80 Bonding of Piping Systems.
> >
> > (a) Metal Water Piping. The interior metal water piping system shall
> > always be bonded to the service equipment enclosure, the grounded
> > conductor at the service, the grounding electrode where of sufficient
> > size, or to the one or more grounding electrodes used...."
>
> The inpector told me not to as the only metal is at the meter and valve.
> I's plastic leaving the house and plastic beyond the shutoff valve.
> --
> Roger Halstead (K8RI EN73)

I believe your inspector was wrong. In later versions of the NEC,
there's been several since 1981 and I think 1999 may be the most recent,
there is much to be read about grounding ANY metal interior piping and
ducting. Has little to do with the pipe actually going into the ground,
etc.
Much of the NEC is based on things that COULD become potential hot
spots. Having metal piping inside the house is always an invitation for
some future electrician/installer to make his ground connection there
assuming that it was properly grounded in the first place. I think this
is the scenario the NEC strives to address.
-BM

2334. Re: Coax ground

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 13:54:53 UTC
From: Bill Ogden <ogden@us.ibm.com>
Message-ID: <3DD1082C.FC4FF2BC@us.ibm.com>
Source record: 131473

Good point. There has been so much talk about the difficulties of sealing coax that I did not consider simply exposing the shield. How do you make the shield-to-tower connection?

With a half-sloper, the coax shield would be connected to the tower at the feed point (about 40' up in my case) and the base. The shield and the tower would be, in effect, parallel elements. With the small spacing involved (about 2') on 160 - 30 meters, I guess the shield and tower would simply act as a thicker element.

Bill
W2WO

> No connectors are needed.
> They recomend stripping the jacket back and grounding the braind right to
> the tower and then grounding the tower. They recommend against inserting
> connections, but that can make sealing the cable a bit more complicated.
> Check the PolyPhaser site.
>
> I use two slopers on 75 and 1 on 40. All coax runs on the outside of the
> tower. The tower in this case has little to do with the radiation. I use
> half wave center fed dipoles at close to a 45 degree angle.
>
> --

2335. Re: Hate to ask

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 14:10:02 UTC
From: richardharrison@webtv.net
Message-ID: <29498-3DD10BBA-226@storefull-2315.public.lawson.webtv.net>
Source record: 131475

Gilbert Mouget wrote:
"L = 862 / 1070x2x3.14 = 0.128 Henry

Only problem with that answer is the frequency given was 1070000 Hz, not 1070 Hz.

So, the answer is 128.28 microhenry.

Best regards, Richard Harrison, KB5WZI

2336. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 14:10:47 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <os22tuobkccc0mmcka5mhig062dol8abre@4ax.com>
Source record: 131474

On Mon, 11 Nov 2002 14:35:07 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

[good stuff snipped]
| Few
|people appreciate just how difficult it can be to make even moderately
|accurate measurements of antenna impedance, let alone such things as
|gain and pattern. It's fortunate that we can so often get by without
|really knowing what the impedance, gain, or pattern of our antennas
|really are.

That's for sure.

2337. MFJ 259A

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 15:07:12 UTC
From: catalistuk@yahoo.com
Message-ID: <3617de92.0211120707.12a82caa@posting.google.com>
Source record: 131476

Doe’s any body have the circuit diagram for this MK1 MFJ 259 and the setting up perseduer, as my MFJ will not read 50 ohms when a 50 ohm load is placed on to the input connector.
Many thanks.
Paul G0MIH

2338. Re: Hamstick Dipole? Anybody using one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 15:20:49 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <aqr68h$mk0@r02n01.cac.psu.edu>
Source record: 131477

Hi all:

I had a set of them for 40 and 80m up about 20' on the roof. They worked OK

or so I though, until I put up a trapped dipole at 30' for 40 and 80m. The

ham sticks were about 10db down from the dipole on 40m and 15db down on 80m.

You could make contacts on them, but you would not be doing much DX. If I

could have gotten them higher it might worked out better. But with antennas

it a game of compromise. You have do the balance between what you can

afford, how much room you have and how much performance you can stand to

lose.

--
John Passaneau, W3JXP
Physics Dept. Electronics Shop
Penn State University
104 Davey Lab, University Park , Pa. 16802
814.863.4297, jxp16@psu.edu

"Lars Edwards" <larse@hiwaay.net> wrote in message
news:ut0sobaid0vdc8@corp.supernews.com...
> Hello Mike,
>
> I'm using a 20 meter dipole made from 2 Hamsticks.
>
> It's up only ~ 12 feet and is getting out quite well.
>
> I routinely work into Europe on cw using a FT-817 at the 2.5 watt setting.
> Have also worked some into Africa, South America and Russia.
>
> This started out as a project for a portable and vacation operation type
of
> antenna and has worked out well enough that I have left it up and use it
> most of the time.
>
> I'll be interested in hearing more about using a 40 meter version for
> multiband operation.
>
> Lars
> WB2ORD
>

2339. Re: Hate to ask

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 15:29:47 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <L79A9.2995$XF5.426435@news2.west.cox.net>
Source record: 131478

```
XL=(2 * Pi * f * L)

A calculator is at URL:
http://ourworld.compuserve.com/homepages/Bill_Bowden/XLC.htm
Enter freq and Xl -- get answer

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"CW" <clinton.magers@attbi.com> wrote in message
news:iu%z9.2961$ME6.2119@rwcrnsc53...
> Pretty basic question. I should know this but....... the heck with
excuses,
> here it is.
> What value of coil (in Henrys) would give me a reactance of 862 ohms at
1070
> kHz?
>
>
```

2340. Re: Hate to ask

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 15:48:04 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0211120748.5f0e824e@posting.google.com>
Source record: 131479

"CW" <clinton.magers@attbi.com> wrote in message news:<iu%z9.2961$ME6.2119@rwcrnsc53>...
> Pretty basic question. I should know this but..... the heck with excuses,
> here it is.
> What value of coil (in Henrys) would give me a reactance of 862 ohms at 1070
> kHz?

Reactance X = 2 * pi * f * L you need a 128.2 microhenry coil

BR from Ivan

2341. Re: Coax ground

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 16:39:58 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <y9aA9.520$7d.311891@monger.newsread.com>
Source record: 131480

"Bill Ogden" <ogden@us.ibm.com> wrote in message
news:3DD1082C.FC4FF2BC@us.ibm.com...
> Good point. There has been so much talk about the difficulties of sealing
coax
> that I did not consider simply exposing the shield. How do you make the
> shield-to-tower connection?

I use brass shim stock soldered to the braid and then wrapped at least a minimum of 3/4 the way around the tower leg. The joint to braid is carefully sealed with liquid electrical tabe to keep any moisture out of the braid. Then the whole thing is "hose clmamped" to the tower leg.

I believe there is a description as to how they make the commection on the polyphaser page.
I remember coming across a very good page that eve included how to make static balls. Unfortunately I'd have to go search as I no longer have the URL.

I whacked the major portion of the top off my middle knuclke on my left hand working in the shop last night so tis a bit difficult to type.

73

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)

2342. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 16:46:37 UTC
From: gaschafer@attbi.com
Message-ID: <3dd13098.4610791@netnews.attbi.com>
Source record: 131481

On Tue, 12 Nov 2002 09:09:38 -0400, Bill M <"exray"@no
spam-caribe.net> wrote:

>Roger Halstead wrote:
>>
>> > The National Electrical Code (1981) states:
>> >
>> > "250-80 Bonding of Piping Systems.
>> >
>> > (a) Metal Water Piping. The interior metal water piping system shall
>> > always be bonded to the service equipment enclosure, the grounded
>> > conductor at the service, the grounding electrode where of sufficient
>> > size, or to the one or more grounding electrodes used...."
>>
>> The inpector told me not to as the only metal is at the meter and valve.
>> I's plastic leaving the house and plastic beyond the shutoff valve.
>> --
>> Roger Halstead (K8RI EN73)
>
>
>I believe your inspector was wrong. In later versions of the NEC,
>there's been several since 1981 and I think 1999 may be the most recent,
>there is much to be read about grounding ANY metal interior piping and
>ducting. Has little to do with the pipe actually going into the ground,
>etc.
>Much of the NEC is based on things that COULD become potential hot
>spots. Having metal piping inside the house is always an invitation for
>some future electrician/installer to make his ground connection there
>assuming that it was properly grounded in the first place. I think this
>is the scenario the NEC strives to address.
>-BM

One of my neighbors where I once lived had a house with metal studs
for the wall construction.
The electrical wires of course all ran through the metal studs. There
are supposed to be plastic
collars where the wire goes through each stud, but are not always
installed by the electricians.
In this particular case the medicine cabinets in one of the bathrooms
would give you a shock
whenever it was touched.
It was presumed that one of the studs cut through one of the wires
making the studs hot. Next
to impossible to find.

That is one reason why it is important to have all metal conductors grounded in a house. You
never know what may come in contact with them.

73
Gary K4FMX

2343. Re: Magnet for Lightning? A POSSIBLE SOLUTION

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 16:54:56 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <AnaA9.522$7d.313132@monger.newsread.com>
Source record: 131482

"John Smith" <someone@microsoft.com> wrote in message
news:aqqapt$om5$1@newstoo.ericsson.se...
> Ok Garry, I believe you are perhaps a little bit paranoid about lightning.
> One thing I have learned is that you don't fly models if you dont want a
> crash. You don't erect metal in the air if you don't want lightning.
>
> What you can do is to use an optical isolator so the antenna has no
> electrical connection between the bit in the air and your valuable
receiver.
> When you want to transmit, then plug in the transciever, but under normal
> circumstances, just leave the opto-isolator in circuit.

I'd go out and buy a polyphaser, put it in the line, thouroughly ground it,
and not worry.
Make a grounded bulkhead and ground the end of the coas to that when not in
use. Do the same with the rotor cable connector.

http://www.rogerhalstead.com/tower.htm All leads have poly phasers. The wire
antennas have them up at the remote switch (unused antennas are grounded)
and I have A grounded bulkhead coming in the basement that has polyphasers
for each coax. The system gets hit at least several times per year. I've
lost one polyphaser so far and all the stations were connected.

I did have lightening come in on the phone line to the only equipment no on
one of the warrentied outlets. It took out my ISDN router, Network hub, and
every thing in one computer except the CPU and RAM. Even the power supply
and an external scanner were trashed. Two 40 gig HDs, New CD R/RW
drive...virtually everything. Fortunately nearly everything was backed up
and current

So this summer we completely redid the electrical system and have varistors
on all phone lines as well..

>
> I first read about the technique as a solution for preventing RF radiation
> from vintage regenerative receivers. Just an LED and photo-cell work very
> well through most of the HF band. The only complicated bit is supplying
the
> LED with a few mA of operating current.
>
> This will not help you if you get a direct strike, but in that event,
> nothing will.

Welll...In the event of a direct strike and a tower the idea is to redirect
the strike into the ground instead of coming in the house. In the case of a
single antenna, the idea is to throw the coax out the window. Just cap it

so it doesn't get water in the coax.

As I said, mine takes about three hits a summer, and there has been very
little damage. Then again the ground system is 21, 8 foot ground rods,
cadwelded to over 400 feet of #2 bare copper in a big network.
>

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)
> BR Harry
>
>

2344. Re: What is a good, small 6 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 17:40:45 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <x2bA9.525$7d.314188@monger.newsread.com>
Source record: 131483

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:BbmdnYGgK8H3zlCgXTWcpg@comcast.com...
> More important than the antenna is listening at the right time. I knew
> somebody who listened for DX every night. He never heard any, because it
> never comes in at night.

We've had a number of good openings at during the evening this Fall.
And don't forget Aurora. there have been fewer than last year, but they can
occur day or night
Last Fall we had F layer openins that sometines lasted most of the day,
which was unusual.

> Right now, until about the end of the year, there
> is a chance of F layer DX between about 8AM and noon local time toward the
> East and South; afternoons towards the West. Next summer, and also early
> January, sporadic E could happen any time of day. Sporadic E is usually
good
> for 800 - 1200 miles. Very rarely as short as 500. You will work people
for

You sometimes get double hop as well.

> sure if you get on 6 during the January VHF contest. It runs from Saturday
> afternoon until Sunday night, usually the weekend before the Super Bowl.
> Check QST or the ARRL web site for date and time about a month from now.
> What you need for the contest is to know what your grid square is.
>
Just look up your Call on QRZ. It will have your grid.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S/N CD-2)
> Tam/WB2TT GRID FN20
> "nospam" <xxxmmxxx@xxxspiritone.com> wrote in message
> news:3DCC0973.65DDC2F7@xxxspiritone.com...
> > Do ground planes for 6 meter work very well?
> >
> > I never hear anything on that band except a local beacon.
> > Using an inv. L for 160 m for antenna.
> >
> > What are good frequencies to monitor?
> >
>
>

2345. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 17:46:09 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <B7bA9.527$7d.314869@monger.newsread.com>
Source record: 131484

"Bill M" <"exray"@no spam-caribe.net> wrote in message
news:ut1v6ibuco1i7c@corp.supernews.com...
> Roger Halstead wrote:
> >
> > > The National Electrical Code (1981) states:
> > >
> > > "250-80 Bonding of Piping Systems.
> > >
> > > (a) Metal Water Piping. The interior metal water piping system shall
> > > always be bonded to the service equipment enclosure, the grounded
> > > conductor at the service, the grounding electrode where of sufficient
> > > size, or to the one or more grounding electrodes used...."
> > >
> > The inpector told me not to as the only metal is at the meter and valve.
> > I's plastic leaving the house and plastic beyond the shutoff valve.
> > --
> > Roger Halstead (K8RI EN73)
> >
> >
> I believe your inspector was wrong. In later versions of the NEC,
> there's been several since 1981 and I think 1999 may be the most recent,
> there is much to be read about grounding ANY metal interior piping and
> ducting. Has little to do with the pipe actually going into the ground,
> etc.
> Much of the NEC is based on things that COULD become potential hot
> spots. Having metal piping inside the house is always an invitation for
> some future electrician/installer to make his ground connection there
> assuming that it was properly grounded in the first place. I think this
> is the scenario the NEC strives to address.

He's gonna have to be affuly picky. the metal portion is *only* the meter
and shutoff valve...bout 2 feet long.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)
> -BM

2346. 40 through 10

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 17:50:00 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <cbbA9.529$7d.315074@monger.newsread.com>
Source record: 131485

Anybody make a good reliable, reputable beam for 40 through 10?

I'd like at least 3 elements on 40. I'd also like most of the WARC bands.
All that metal and still maintain a fair gain. None of these strange
patterns that come off the side that get called a beam like some do.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)

2347. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 18:07:06 UTC
From: Bill M <exray@no>
Message-ID: <ut2gk98mgd6ea6@corp.supernews.com>
Source record: 131487

Roger Halstead wrote:
>
> He's gonna have to be affuly picky. the metal portion is *only* the meter
> and shutoff valve...bout 2 feet long.
>
> --
> Roger Halstead (K8RI EN73)

We'll need to call the NEC people on that one. And I bet the ruling
would indeed be based on how picky the individual answering might be.

-BM

2348. Re: 40 through 10

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 18:10:43 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <DubA9.49359$hp5.5966020@twister.southeast.rr.com>
Source record: 131486

Log periodic?

Alan
WN4HOG

--
Windsurfing Club: http://www.ibscc.org

"Roger Halstead" <rdhalste@tm.net> wrote in message
news:cbbA9.529$7d.315074@monger.newsread.com...
> Anybody make a good reliable, reputable beam for 40 through 10?
>
> I'd like at least 3 elements on 40. I'd also like most of the WARC bands.
> All that metal and still maintain a fair gain. None of these strange
> patterns that come off the side that get called a beam like some do.
>
>
> --
> Roger Halstead (K8RI EN73)
> www.rogerhalstead.com
> N833R World's oldest Debonair? (S# CD-2)
>
>

2349. How to buy K6STI's YO (Yagi Optimizer) program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 18:19:35 UTC
From: Duncan Clark <NEWS@[127.0.0.1]>
Message-ID: <J$4k$dA3YU09Ewv3@ntlworld.com>
Source record: 131489

Hi Folks,

Can anyone point me to where I can buy K6STI's YO (Yagi Optimizer)
program.

The e-mail address I found on the web has bounced, I can't find any web
site for him with Google and there is no e-mail address on QRZ.com.

Many thanks

Duncan
G4ELJ
--
Support bacteria. They are the only culture some people have.

Duncan Clark

2350. Re: DIpole mounting question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 18:19:36 UTC
From: Ed Senior <eseniors@earthlink.net>
Message-ID: <YCbA9.1010$Ta6.99924@newsread2.prod.itd.earthlink.net>
Source record: 131488

Hi Mike -

You didn't say what bands you were after, which might make a
difference.

But I have an 80/40/17 trap dipole mounted as an inverted vee,
about 10' above the roof. I also have a 20/15/10 sloping dipole,
and it's also about 10' above the roof. Both get out very well,
and neither shows any ill effects from being close to the roof.
They do couple strongly into the power wiring and telephone
lines, however.

Good luck, and have fun!

Ed

"Mike M" <nospam@nospam.com> wrote in message
news:FD2CFD3C0F7EC3F0.344085C68AB7705C.B818F74DAE0C4896@lp.airnews.net...
> I'm thinking about antennas now that I've decided to get my General.
> Should be next month.
>
> I live in a fairly restricted suburban neighborhood. I'm sure I could
> get away with a conservative antenna like one of the Force 12 vertical
> dipoles of maybe some other vertical. But in looking around and reading
> the dipole looks a heck of a lot cheaper and performance wise a good
> start.
>
> Question is can I mount this under the eaves of my house without any
> significant degredation in performance? I have a perfect 70 ft. run if I
> can get away with doing this. How about over the roof? I can camouflage
> these very well. I know in a perfect world that away from the house is
> ideal but I can't get away with that.
>
> Any ideas?
>
>

2351. Re: What is a good, small 6 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 18:19:41 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <1DbA9.3495$XF5.476923@news2.west.cox.net>
Source record: 131490

For 6M calling and DXing frequencies and where to listen -- see URL:
http://ac6v.com/callfreq.htm

Also get on the DX packet clusters -- either VHF or the web -- See URL:
http://www.cestro.com/pcluster/telnet.html
If there is any 6M activity (skip or sporadic E) it will be posted on the
clusters.

For casual 6M DXing, propagation is much more important than the antenna. I
and another ham here in San Diego used verticals (me cushcraft 1/2 wave
ringo) my buddy with a homebrew vertical dipole. We worked all thru New
England some Carribean, and Alaska and Hawaii on F-skip. On sporadic E we
worked all thru the northwest and some SW from San Diego.

Of course a beam and power will do you better -- but for openers a homebrew
$2 dipole (vertical or horizontal) will do.

Good Luck

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"Roger Halstead" <rdhalste@tm.net> wrote in message
news:x2bA9.525$7d.314188@monger.newsread.com...
>
> "Tarmo Tammaru" <t-tammaru@home.com> wrote in message
> news:BbmdnYGgK8H3zlCgXTWcpg@comcast.com...
> > More important than the antenna is listening at the right time. I knew
> > somebody who listened for DX every night. He never heard any, because it
> > never comes in at night.
>
> We've had a number of good openings at during the evening this Fall.
> And don't forget Aurora. there have been fewer than last year, but they
can
> occur day or night
> Last Fall we had F layer openins that sometines lasted most of the day,
> which was unusual.
>
> > Right now, until about the end of the year, there
> > is a chance of F layer DX between about 8AM and noon local time toward
the
> > East and South; afternoons towards the West. Next summer, and also early
> > January, sporadic E could happen any time of day. Sporadic E is usually
> good
> > for 800 - 1200 miles. Very rarely as short as 500. You will work people

> for
>
> You sometimes get double hop as well.
>
> > sure if you get on 6 during the January VHF contest. It runs from
Saturday
> > afternoon until Sunday night, usually the weekend before the Super Bowl.
> > Check QST or the ARRL web site for date and time about a month from now.
> > What you need for the contest is to know what your grid square is.
> >
> Just look up your Call on QRZ. It will have your grid.
>
>
> --
> Roger Halstead (K8RI EN73)
> www.rogerhalstead.com
> N833R World's oldest Debonair? (S# CD-2)
> > Tam/WB2TT GRID FN20
> > "nospam" <xxxmmxxx@xxxspiritone.com> wrote in message
> > news:3DCC0973.65DDC2F7@xxxspiritone.com...
> > > Do ground planes for 6 meter work very well?
> > >
> > > I never hear anything on that band except a local beacon.
> > > Using an inv. L for 160 m for antenna.
> > >
> > > What are good frequencies to monitor?
> > >
> >
> >
>
>

2352. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 18:23:14 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <66g2tu0rhmjpb0ubj7dtv2e9ka0bibf7d5@4ax.com>
Source record: 131491

On 12 Nov 2002 06:50:57 GMT, Dick Carroll <dixie@townsqr.com> wrote:

>
>
>Roy Lewallen wrote:
>>
>> You just don't have a clue what "dry winter" means here, do you?
>>
>> Roy Lewallen, W7EL
>>
>> CAM wrote:
>> > Roy Lewallen wrote:
>> >
>> >>Just goes ta show ya --
>> >
>> >
>> > Hey Roy, I heard on the weather channel that, because of
>> > El Nin~o, you area will have a dry winter. That means you
>> > can switch to ladder-line. :-)
>
>
>To take a few liberties with Mark Twain, "The wettest winter I ever
>spend was a dry winter in the Pacific Norwhwest".
>
>Dick

Hi Dick,

Currently raining, fairly windy too. There's no point in saying when this report is made, aside from the timestamp that comes of posting this, as it has been true for at least the past three days. As has Roy, I will offer my own school's link:
http://www.atmos.washington.edu/images/vis1km/200211121730.gif
a wider view offers a glimpse of why we call some storms the "pineapple express":
http://www.atmos.washington.edu/images/vis4km/200211121700.gif
The arc of clouds is something that also visually demonstrates how some weather allows us to work Hawaii with VHF tropospheric ducting.

And yes, it is a dry autumn so far (winter will get here soon enough as it is). However, dry as a description is relative. Less than 50 miles from here the annual average rainfall is in excess of 200 inches. Seattle sees only 40 of them. This 40 inch average is fairly similar to New York City, except we get it spread over 10-12 months instead of the majority of it over 2-4 months of a wet season. By the

way, within this same 50 miles is a region called the "Blue Hole"
where the rainfall is less than 20 inches a year.

73's
Richard Clark, KB7QHC

2353. Re: Longwire impendance matcher

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 18:26:16 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92C47F909266Bmichalkunyahoocom@128.233.3.7>
Source record: 131492

So what about Winradio? Does it have one or not? Would I need one if I
have the wire connected directly to the radio? What if there is lead in
coax to the radio? Would this impendance matcher do any good?

CW" <clinton.magers@attbi.com> wrote in
news:X6dz9.59947$sP2.20244@sccrnsc02:

> Yes, that is why most receivers have one built into their high impedance
> antenna input. The manufacturers put it there to degrade performance.
> "Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
> news:aqj7oe$a56$1@sparta.btinternet.com...
>> When a 'longwire' is an odd number of 1/4-wavelengths long its input
>> impedance is very low. So the balun makes things worse.
>>
>> It also makes the balun manufacturer and salesman very happy.
>>
>>
>
>
>

2354. Re: Longwire impendance matcher

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 18:27:50 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92C47FD4CE2A8michalkunyahoocom@128.233.3.7>
Source record: 131493

I have winradio 1550e and it has coax input for antenna.

Bob Miller <bxmillerSpamNot@texas.net> wrote in
news:KJvNPcV0YCpCjI=xa5Ncvb0y2OP6@4ax.com:

> Michalkun <no.spam@nospam.com> wrote:
>
>>Could anybody tell me what is a longwire impendance matcher and how
>>would it improve shortwave reception?
>
> Look on the back of your shortwave receiver. If you have a low
> impedance antenna connnection (usually a coax connector), and a high
> impedance connector (a terminal where you can stick a piece of wire),
> you are ready to go. Attach your long wire antenna (which may have a
> high impedance) to your high impedance connector.
>
> If you have only a coax connector, you may or may not need the balun.
> Supposedly, the balun would transform the high impedance of the long
> wire to the low impedance of the coax connection.
>
> So, what's on the back of your radio? We can give you better advice,
> knowing that.
>
> Bob
> k5qwg
>
>

2355. Re: Hamstick Dipole? Anybody using one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 19:15:45 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <5qcA9.8459$wO4.7037@news.bellsouth.net>
Source record: 131494

Mike M <nospam@nospam.com> wrote in message
news:1C8C962F29D5692E.D4778B30A8CF64F7.D4B986CA71D5952E@lp.airnews.net...
> Looks like the Dipole strung out under the eaves of the house may be out.
> Too much hassle and risk of ladder accidents. Can't affort a vertical
> or one of the Force 12's vertical dipoles at this time either. I've been
> reading about Hamsticks used in the dipole config. with their dipole
> mounting kit. One guy on HAMNET says he uses dual 40's with an antenna
> tuner with great results on all bands. Boy the price on these sure looks
> right.
>
> Is anyone on here using one?

It's like one of the guys said: it isn't the greatest thing around, but it
will work. You might not be
able to put a BIG signal on the air, but when faced with constraints such as
finance, CC&Rs, space, and reluctant spouses, ya does whatcha can. Best
thing to do is to try it, fiddle with it,
and see what happens.

73

Jerry
K4KWH

>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.391 / Virus Database: 222 - Release Date: 9/19/02

2356. Re: MFJ 259A

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 19:31:40 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <K62dnZRq6-ley0ygXTWc3w@comcast.com>
Source record: 131495

Paul,

I have the 269, and find that on the lowest frequency range I measure within about 1 ohm of the DC resistance value. (A 47 ohm 1/2W resistor, which is actually 49 ohms). The resistance drops with frequency. I think I was reading 43 ohms at 2 meters. Do not use a dummy load, they (at least mine) have spurious resonances outside of the ham bands. How far off is your 259? Suggest you write or email MFJ at www.mfjenterprises.com

Tam/WB2TT

<catalistuk@yahoo.com> wrote in message news:3617de92.0211120707.12a82caa@posting.google.com...
> Doe’s any body have the circuit diagram for this MK1 MFJ 259 and
> the setting up perseduer, as my MFJ will not read 50 ohms when a 50
> ohm load is placed on to the input connector.
> Many thanks.
> Paul G0MIH

2357. Re: MFJ 259A

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 20:26:44 UTC
From: UnTale <i@i.com>
Message-ID: <8udA9.22787$Zn2.636742@twister1.libero.it>
Source record: 131496

> Does any body have the circuit diagram for this MK1 MFJ 259 and
> the setting up perseduer, as my MFJ will not read 50 ohms when a 50
> ohm load is placed on to the input connector.
> Many thanks.
> Paul G0MIH

I found that on the web http://www.vhfman.freeuk.com/radio/analyser.html
and I've schematics for old 249/259 (NOT B version) (but I don't remember
the original Url);
if needed..

ciao

--

"Nunc est bibendum,
nunc pede libero pulsanda tellus"
Orazio, Odi, I, 37, 1

73 de iz7ath, Talino
http://www.qsl.net/iz7ath

2358. CAT5 cable to control remote antenna switch. Thoughts?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 21:28:26 UTC
From: golfradio@yahoo.com
Message-ID: <21b5602c.0211121328.3563c373@posting.google.com>
Source record: 131497

I have a 150' run to a remote antenna switch and am wondering if some cheap 8-conductor CAT5 cable would work. It would be buried for approx. 100' then up the tower another 50'or so. Anyone try this? Any thoughts pro or con?

73', Mark

2359. Re: Don't blame Mark Twain (was: Re: Rhombic for UHF)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 22:52:29 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-1211021452290001@bni030qny8kc.bc.hsia.telus.net>
Source record: 131498

In article <DY5A9.6553$P71.1891227@newsfeed.slurp.net>, "Copper.net"
<davidw@copper.net> wrote:

> Is not skepticism ultimately an untenable position?

Not at all. Here's what the American Heritage Dictionary says:

skep-tic also scep-tic n.
1. One who instinctively or habitually doubts, questions, or disagrees with
assertions or generally accepted conclusions.
2. One inclined to skepticism in religious matters.
3. Philosophy. a. Often Skeptic. An adherent of a school of skepticism.
b. Skeptic. A member of an ancient Greek school of skepticism, especially
that of Pyrrho of Elis (360?-272? B.C.). [Latin Scepticus, disciple of Pyrrho
of Elis, from Greek Skeptikos, from skeptesthai, to examine. See spek- below.]

In particular, a skeptic says "I'd like to see the evidence".

David, ex-W8EZE

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

2360. Re: How to buy K6STI's YO (Yagi Optimizer) program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-12 23:08:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ut360gbr6h8td8@corp.supernews.com>
Source record: 131502

You can contact Brian at

Brian Beezley
3532 Linda Vista Dr.
San Marcos, CA 92069

Roy Lewallen, W7EL

Duncan Clark wrote:
> Hi Folks,
>
> Can anyone point me to where I can buy K6STI's YO (Yagi Optimizer) program.
>
> The e-mail address I found on the web has bounced, I can't find any web
> site for him with Google and there is no e-mail address on QRZ.com.
>
> Many thanks
>
> Duncan
> G4ELJ

2361. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 00:08:36 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <aqs568$dk9$1@slb4.atl.mindspring.net>
Source record: 131499

Wes, Roy:

[snip]
"Wes Stewart" <n7ws@nowhere.com> wrote in message
news:os22tuobkccc0mmcka5mhig062dol8abre@4ax.com...
> On Mon, 11 Nov 2002 14:35:07 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> [good stuff snipped]
> | Few
> |people appreciate just how difficult it can be to make even moderately
> |accurate measurements of antenna impedance, let alone such things as
> |gain and pattern. It's fortunate that we can so often get by without
> |really knowing what the impedance, gain, or pattern of our antennas
> |really are.
>
> That's for sure.
[snip]

That's the *magic* of HF, but... don't try that on EME or MEO, GEO
satellite!

--Peter K1PO
Indialantic By-the-Sea, FL.

2362. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 00:36:48 UTC
From: Sylvan Butler <Znospam+noZs_0211@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrnat37l0.t7t.Znospam+noZs_0211@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 131500

On Tue, 12 Nov 2002 17:46:09 GMT, Roger Halstead <rdhalste@tm.net> wrote:
> He's gonna have to be affuly picky. the metal portion is *only* the meter
> and shutoff valve...bout 2 feet long.

No metal pipe inside the house? That is what has to be connected to
the electrical system grounding conductor.

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. >>>> change ^ to @ <<<< |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Stop Senator Fritz Hollings-S2048, Palladium, and TCPA, NOW!
http://www.freedom-to-tinker.com/archives/cat_fritzs_hit_list.html
Or else like Fritz, fight piracy -- regulate potty chairs!

2363. Re: CAT5 cable to control remote antenna switch. Thoughts?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 00:38:16 UTC
From: Sylvan Butler <Znospam+noZs_0211@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrnat37no.t7t.Znospam+noZs_0211@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 131501

On 12 Nov 2002 13:28:26 -0800, Mark <golfradio@yahoo.com> wrote:
> I have a 150' run to a remote antenna switch and am wondering if some
> cheap 8-conductor CAT5 cable would work. It would be buried for

The "cheap" cat-5 isn't rated for burial or exposure to the
elements. Also, it is only 24ga. Might have some voltage drop
problems if your remote switch draws much currrent.

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. >>>> change ^ to @ <<<< |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Stop Senator Fritz Hollings-S2048, Palladium, and TCPA, NOW!
http://www.freedom-to-tinker.com/archives/cat_fritzs_hit_list.html
Or else like Fritz, fight piracy -- regulate potty chairs!

2364. Re: antenna resonance via grid dipper?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 00:51:10 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <jp63tuo9nbicid0opdm4ug057lc77ou5cn@4ax.com>
Source record: 131503

On Tue, 12 Nov 2002 19:08:36 -0500, "Peter O. Brackett"
<ab4bc@ix.netcom.com> wrote:

|Wes, Roy:
|
|[snip]
|"Wes Stewart" <n7ws@nowhere.com> wrote in message
|news:os22tuobkccc0mmcka5mhig062dol8abre@4ax.com...
|> On Mon, 11 Nov 2002 14:35:07 -0800, Roy Lewallen <w7el@eznec.com>
|> wrote:
|>
|> [good stuff snipped]
|> | Few
|> |people appreciate just how difficult it can be to make even moderately
|> |accurate measurements of antenna impedance, let alone such things as
|> |gain and pattern. It's fortunate that we can so often get by without
|> |really knowing what the impedance, gain, or pattern of our antennas
|> |really are.
|>
|> That's for sure.
|[snip]
|
|That's the *magic* of HF, but... don't try that on EME or MEO, GEO
|satellite!

Hmmm. It's been 20 years since I was on EME but I do have WAC on 2
meters, so I think I can speak to that. And most of my professional
career involved making r-f/microwave measurements, including some time
on both a open field antenna range and an indoor anechoic compact
range so I have a feel for that too.

I can tell you that I *never* knew what the impedance was of the Yagis
that made up my modest EME array. I knew to a fair degree of accuracy
what the SWR was but not the impedance. I sure as hell didn't have
the ability at home to measure gain or pattern with any type of
accuracy.

Furthermore, I knew with little uncertainty what the noise figure was
on an HP8970 Noise Figure Meter, since I had the ability to reduce the
uncertainty by making vector impedance measurements on both the source
and the preamp. However, I didn't know what the NF was when actually
connected to the antenna.

But I did hear echos, made a lot of EME and tropo contacts and was one
of fewer hams world-wide to make a two-way with Owen, W5LFL, in the
first ham operation from the space shuttle. My report: "N7WS, you're

the loudest signal we've heard in the spacecraft." I think that means 5x9 but on FM I'm not sure. (Four long-boom Yagis and 1500W beats a five-watt handitalkie every time)

So I reiterate my support of Roy's earlier statement. "It's fortunate that we can so often get by without really knowing what the impedance, gain, or pattern of our antennas really are."

We really can. Honest.

2365. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 01:21:45 UTC
From: Gordon Couger <gcouger@NOSPAMprovalue.net>
Message-ID: <zMhA9.8220$P71.2236051@newsfeed.slurp.net>
Source record: 131504

"Fractenna" <fractenna@aol.com> wrote in message
news:20021108121800.25525.00000107@mb-ch.aol.com...
> Hi Gordon!
>
> CPVC is best.
>
Chip,

I didn't consider PVC because of UV break down but CPVC solves that it looks real good in most places unless the high strength is required. For a great many things it is ideal.

Thanks
Gordon W5RED

2366. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 01:25:14 UTC
From: Gordon Couger <gcouger@NOSPAMprovalue.net>
Message-ID: <OPhA9.8230$P71.2237960@newsfeed.slurp.net>
Source record: 131505

"Bob Cameron" <bob.cameron.remove@optusnet.com.au> wrote in message
news:l2mjqa.cv7.ln@p400bob.lse.com.au...
> Gordon Couger wrote:
>
> > I have 3 antenna designs that work and have been range tested side by
side
> > with commercial products using corn field ranges and they pass a reality
> > check and I need to know what patristic to use for the center insulator
in
> > dipoles (low voltage, high current) and traps where the voltage and loss
> > are more critical. UV and weathering are also an important
consideration.
>
> Fibreglass might be another possibility? Although not a centre insulator
> situation I use pultruded rod for Quad spiders.
>
Fiberglass is great material but very annoying to machine. Wear full
berating protections and run a vacuum with the canister out doors picking up
the dust at the dust. It is not good stuff to breathe.

Gordon W5RED

2367. Re: 40 through 10

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 01:25:31 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211121725.4cf1a231@posting.google.com>
Source record: 131506

"Roger Halstead" <rdhalste@tm.net> wrote in message
news:<cbbA9.529$7d.315074@monger.newsread.com>...
> Anybody make a good reliable, reputable beam for 40 through 10?
>
snip
None of these strange
> patterns that come off the side that get called a beam like some do.

Whose antenna were you thinking of who sells such a beam with the side
patterns that you speak of?
Art.

2368. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 01:29:02 UTC
From: Gordon Couger <gcouger@NOSPAMprovalue.net>
Message-ID: <21iA9.8267$P71.2243524@newsfeed.slurp.net>
Source record: 131507

"Frank Donovan" <donovanf@erols.com> wrote in message
news:aqkpjg$5fg$1@bob.news.rcn.net...
> The best material I've found is molded Grade LE phenolic rod.
> It's impervious to moisture and I've never had one fail
> in 30 years of use. A three foot length of 3/4" diameter
> molded rod costs about $25.00.
>
> It's available in diameters from 3/16" to 4".
>
> Recommended source: AIN Plastics 800-431-2451
>
Never thought about that, Frank it is good stuff I have used it for this and
that all my life. Thanks a lot.

Gordon W5RED

2369. Re: Don't blame Mark Twain (was: Re: Rhombic for UHF)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 01:38:07 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD1ACFF.74DDD829@ieee.org>
Source record: 131508

David or Jo Anne Ryeburn wrote:
>
> <davidw@copper.net> wrote:
> > Is not skepticism ultimately an untenable position?
>
> Not at all.

I'm skeptical that you exist, David. Can you prove otherwise? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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2370. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 01:40:10 UTC
From: Gordon Couger <gcouger@NOSPAMprovalue.net>
Message-ID: <qbiA9.8295$P71.2247169@newsfeed.slurp.net>
Source record: 131511

"dan" <danlx@execpc.com> wrote in message
news:3dcbe038$0$1427$272ea4a1@news.execpc.com...
> On Fri, 08 Nov 2002 14:55:59 GMT, Alan Beagley
> <abeagley@optonline.net> wrote:
>
> >My local Home Depot used to sell Lexan, but they've either stopeed or
it's been moved.
> >
> >-=-
> >Alan, AB2OS
> >
> >
> >KC1DI wrote:
> >> Hi Gordon,
> >> I've also found that Lexan works well if you can find a source for it
> >> around you.. it's the stuff they use in bullitproffing banks .
> >>
> >> It's tuff and seems to exhibit good rf insulating properties.
> Hi all,
> Look in the phone book under plastic and glass. Plastic distributors
> and companies that use plastic usually have a dumpster with scraps in
> it. I have had good luck by asking the guy at the loading dock if I
> can get a few pieces out for my project use. If they say no, come
> back after hours and leave a couple of bucks for the pieces you take.
>
> Glass shops also have plastic and sometimes have small cutoffs that
> they can't sell at retail prices. Always haggle with them.
>
> Referring to an earlier post. Lexan is not bulletproof, just bullet
> resistant. It can be penetrated with the right load. Unless the
> lexan is installed properly it can also be blown out of the opening by
> a large caliber slug. I have seen Kevlar used to make walls in banks
> and gas stations harder to penetrate but never Lexan. Matter of fact,
> if you have installed the drive thru window assemblies in banks and
> gas station pass throughs as I have, you would know exactly where to
> shoot to avoid hitting anything that would do more than slow down a
> bullet.
>
> One gas station owner covered the concrete block walls and attendant
> area door with Kevlar and put bullet resistant glass in all the
> windows around the cashier and a bullet resistant Lexan cash pass thru
> window assembly in. Only thing he did not do was put anything behind
> the pegboard under the pass thru window. He thought no one would
> notice it because it was covered with candy. LOL

> Dan
> N9JBF

Lexan will do the job and I may use it for one antenna.

Thanks Gordon

2371. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 01:44:24 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <vl83tu49seu30hdgfgqrur54ftnrfj58bd@4ax.com>
Source record: 131510

On Tue, 12 Nov 2002 17:46:09 GMT, "Roger Halstead" <rdhalste@tm.net>
wrote:

|
|"Bill M" <"exray"@no spam-caribe.net> wrote in message
|news:ut1v6ibuco1i7c@corp.supernews.com...
|> Roger Halstead wrote:
|> >
|> > > The National Electrical Code (1981) states:
|> > >
|> > > "250-80 Bonding of Piping Systems.
|> > >
|> > > (a) Metal Water Piping. The interior metal water piping system shall
|> > > always be bonded to the service equipment enclosure, the grounded
|> > > conductor at the service, the grounding electrode where of sufficient
|> > > size, or to the one or more grounding electrodes used...."
|> >
|> > The inpector told me not to as the only metal is at the meter and valve.
|> > I's plastic leaving the house and plastic beyond the shutoff valve.
|> > --
|> > Roger Halstead (K8RI EN73)
|>
|>
|> I believe your inspector was wrong. In later versions of the NEC,
|> there's been several since 1981 and I think 1999 may be the most recent,
|> there is much to be read about grounding ANY metal interior piping and
|> ducting. Has little to do with the pipe actually going into the ground,
|> etc.
|> Much of the NEC is based on things that COULD become potential hot
|> spots. Having metal piping inside the house is always an invitation for
|> some future electrician/installer to make his ground connection there
|> assuming that it was properly grounded in the first place. I think this
|> is the scenario the NEC strives to address.
|
|He's gonna have to be affuly picky. the metal portion is *only* the meter
|and shutoff valve...bout 2 feet long.

Then that is the portion that should be bonded to the service entrance
ground.

The last I checked, ionized water is conductive and I'm pretty sure
the faucets in your house are metallic. So dispite the plastic
piping, your faucets are connected to the whole water system.

2372. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 01:45:17 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD1AEAD.294B8C73@ieee.org>
Source record: 131509

Gordon Couger wrote:
> Fiberglass is great material but very annoying to machine. Wear full
> berating protections and run a vacuum with the canister out doors picking up
> the dust at the dust. It is not good stuff to breathe.

I found out the hard way that it is also not good to get it in your eyes.
I wore a breathing filter but got a small piece in my eye. The ophthalmologist
had a devil of a time locating it because it was virtually invisible. I could
feel it but he couldn't see it.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2373. Thanks to everyone

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 01:49:41 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <VciA9.3157$II.2371@rwcrnsc52.ops.asp.att.net>
Source record: 131512

Thanks to everyone who responded to my coil question. It is much
appreciated.
--

CW
KC7NOD

2374. Re: High Serria 1800DX

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 01:52:47 UTC
From: LJ <nt6b-vk7lm@dslextreme.com>
Message-ID: <ut3c3a7i55utaa@corp.supernews.com>
Source record: 131513

Bill...If you want to spend a bundle go for the Stealth ...Charlie builds a beautiful coil assembly. Jim's High Sierria is not nearly the quality but also less expensive. But, keep in mind that if you happen to drop either Jim's or Charley's coil you could be in deep do do! Motorized antennas have their problems besides weight.

There are just as good of antennas out there for far less money if you don't mind manually tuning the coils....I prefer K6MB's antennas, the California Bug Smasher...lot better antenna for the money and thy are TOUGH! Take a good look around and choose wisely..

73's...Lonnie (NT6B)
++++++++++++++++++++++++++++++++
"Bill East" <beast@pcs.mb.ca> wrote in message
news:xmUz9.6489$i%.1631143@localhost...
>
> What do think of this mobile antenna ?. Where is it installed on your
> vehicle.? What mounting hardware did you use to mount the screwdriver
> antenna?
> What rig and what acc. are you using to tune the screwdriver?What
> performance on HF and 6 meters are you experiencing with this
> antenna.Anything to help be
> decide between the high serria or stealth .
> Thinking of getting a screwdriver.
> thanks,
> Bill
>
>

2375. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 02:15:15 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aqscjj$3db$0@208.206.142.90>
Source record: 131514

Richard Clark wrote:
>
> On 12 Nov 2002 06:50:57 GMT, Dick Carroll <dixie@townsqr.com> wrote:
>
> >
> >
> >Roy Lewallen wrote:
> >>
> >> You just don't have a clue what "dry winter" means here, do you?
> >>
> >> Roy Lewallen, W7EL
> >>
> >> CAM wrote:
> >> > Roy Lewallen wrote:
> >> >
> >> >>Just goes ta show ya --
> >> >
> >> >
> >> > Hey Roy, I heard on the weather channel that, because of
> >> > El Nin~o, you area will have a dry winter. That means you
> >> > can switch to ladder-line. :-)
> >>
> >>
> >>To take a few liberties with Mark Twain, "The wettest winter I ever
> >>spend was a dry winter in the Pacific Norwhwest".
> >>
> >>Dick
>
> Hi Dick,
>
> Currently raining, fairly windy too. There's no point in saying when
> this report is made, aside from the timestamp that comes of posting
> this, as it has been true for at least the past three days. As has
> Roy, I will offer my own school's link:
> http://www.atmos.washington.edu/images/vis1km/200211121730.gif
> a wider view offers a glimpse of why we call some storms the
> "pineapple express":
> http://www.atmos.washington.edu/images/vis4km/200211121700.gif
> The arc of clouds is something that also visually demonstrates how
> some weather allows us to work Hawaii with VHF tropospheric ducting.
>
> And yes, it is a dry autumn so far (winter will get here soon enough
> as it is). However, dry as a description is relative. Less than 50
> miles from here the annual average rainfall is in excess of 200

> inches. Seattle sees only 40 of them. This 40 inch average is fairly
> similar to New York City, except we get it spread over 10-12 months
> instead of the majority of it over 2-4 months of a wet season. By the
> way, within this same 50 miles is a region called the "Blue Hole"
> where the rainfall is less than 20 inches a year.

I found coastal WA to be rather remarkable. What you have there is a rain forest. Not a tropical rain forest, of course, but a rain forest nevertheless, quite lush with the foliage of one. Then when the Coast Starlight crosses the mountains to the east side, suddenly you're in a desert.

Dick

2376. Re: TA-33 dimensions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 02:40:57 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aqse3p$4pv$0@208.206.142.90>
Source record: 131515

Tarmo Tammaru wrote:
>
> The only question is as to which is the director end and
> which is the reflector end of the boom.

The director end will be the end with longest spacing to the driven element, and the reflector end will be the end with shortest spacing to the DE. True for any 'standard' three element yagi.

Dick

2377. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 05:29:27 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD1E337.C1D316E9@cwis.net>
Source record: 131516

Lee,
It isn't going to make much difference either
way. 'Where' you feed the loop has more affect
on polarization than propagation.
'Doc

2378. Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 10:03:26 UTC
From: Pete Holden <peholden@attbi.com>
Message-ID: <OrpA9.14166$nB.2047@sccrnsc03>
Source record: 131517

What type of antenna is a hamstick? (Vertical dipole, ground plane, etc)

Would it benefit from radials?

Pete KA�TZK

2379. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 10:51:44 UTC
From: Ken Bessler <kg0wx@yahoo.com>
Message-ID: <49qA9.24710$hR3.15982@news2.central.cox.net>
Source record: 131518

"Pete Holden" <peholden@attbi.com> wrote in message
news:OrpA9.14166$nB.2047@sccrnsc03...
> What type of antenna is a hamstick? (Vertical dipole, ground plane, etc)
>
> Would it benefit from radials?
>
> Pete KA�TZK
>

You've been licensed since 11 December 1995 and currently hold an ADVANCED ticket. How is it possible that you don't know the answer to such a simple question?

Just wondering.....

2380. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 11:04:14 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD231AE.F3888607@cwis.net>
Source record: 131419

Pete,
A 'Hamstick' is a helically wound 1/4 wave fibreglass
antenna with an adjustable 'stinger'. Since it's a mobile
antenna it doesn't need radials unless you're mounting it
on a non-metalic object, just like any other 1/4 wave
vertical antenna.
'Doc

2381. Re: MFJ 259A

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 11:10:04 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD2330C.DE447C2B@cwis.net>
Source record: 131420

Paul,
Have you checked the 'MFJ' webb site? They have
manuals for almost all their products.
'Doc

"Semper ubi sub ubi"
DOC: 1, 1

2382. new group on EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 11:45:45 UTC
From: stefano <sgalast@tin.it>
Message-ID: <JXqA9.3959$744.132940@news1.tin.it>
Source record: 131421

Hello,
Ted Hart decided to create a specific Yahoo group for the EH antenna
experimenters.
It can be a good occasion to share the common experiences and to keep up
dated
on the last antenna technical news.
The address is:
http://groups.yahoo.com/group/eh-antenna/
73's steve IK5IIR

p.s. to experiment is beautiful :-))

2383. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 12:35:53 UTC
From: Gary Brown <gbrown@nc.rr.com>
Message-ID: <JGrA9.57857$ku2.3933917@twister.southeast.rr.com>
Source record: 131422

> What type of antenna is a hamstick? (Vertical dipole, ground plane, etc)

Pete,

If you have never seen a hamstick (recently discussed here), try this quick search:

http://images.google.com/images?q=hamstick&ie=UTF-8&oe=UTF-8&hl=en&btnG=Google+Search

As you will see it can be installed in many ways.

73,
Gary
K4GPB

2384. Re: High Serria 1800DX

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 12:45:50 UTC
From: Ed Juge/NM <ed@juge.org>
Message-ID: <xXrA9.16190$NV.298167@news.direcpc.com>
Source record: 131423

Since a couple of us locals have acquired Stealths, every single "screwdriver" (including HS) user who has seen them has said that will be his/her next antenna. Without exception, we've also been told our signals have never been this good before. BTW, Charlie builds --as far as I know-- the ONLY screwdriver-type antenna with a four-inch diameter coil.

Screwdriver antennas take a beating, apparently related to the mechanical aspects of get shorter and longer as they tune. Apparently, maintenance is required on a continuing basis. Stealth coils are unique in that the length doesn't change. All tuning is internal and the coil is sealed from dust, dirt, rain, etc. Stealth users don't do maintenance... they just talk. Is the Stealth worth the price? Depends on how serious you are about mobile ops and whether you hang out on 80/40 meters or above. The real value of a big-coil, high "Q" antenna will be primarily on 80 and 40 meters.

73... Ed, W5EJ

"LJ" <nt6b-vk7lm@dslextreme.com> wrote in message
news:ut3c3a7i55utaa@corp.supernews.com...
> Bill...If you want to spend a bundle go for the Stealth ...Charlie builds
a
> beautiful coil assembly. Jim's High Sierria is not nearly the quality but
> also less expensive. But, keep in mind that if you happen to drop either
> Jim's or Charley's coil you could be in deep do do! Motorized antennas
have
> their problems besides weight.
>
> There are just as good of antennas out there for far less money if you
don't
> mind manually tuning the coils....I prefer K6MB's antennas, the California
> Bug Smasher...lot better antenna for the money and thy are TOUGH! Take a
> good look around and choose wisely..
>
> 73's...Lonnie (NT6B)
> +++++++++++++++++++++++++++++++++
> "Bill East" <beast@pcs.mb.ca> wrote in message
> news:xmUz9.6489$i%.1631143@localhost...
> >
> > What do think of this mobile antenna ?. Where is it installed on your
> > vehicle.? What mounting hardware did you use to mount the screwdriver
> > antenna?
> > What rig and what acc. are you using to tune the screwdriver?What
> > performance on HF and 6 meters are you experiencing with this
> > antenna.Anything to help be
> > decide between the high serria or stealth .

> > Thinking of getting a screwdriver.
> > thanks,
> > Bill
> >
> >
>
>

2385. Re: antenna understanding

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 13:32:30 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aqtk9c$4cr$1@helle.btinternet.com>
Source record: 131424

"When you can measure what you are speaking about and express it in numbers you know something about it. But when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind. It may be the beginning of knowledge but you have scarcely in your thoughts advanced to the state of science."

: William Thomson, Lord Kelvin, 1824-1907.

2386. Anybody tried this 160m antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 13:49:56 UTC
From: Andy M <andrew.markham@virgin.net>
Message-ID: <_JsA9.825$CT5.107495@newsfep1-win.server.ntli.net>
Source record: 131425

Hi All

Anybody tried this antenna. I found it on the following web site
http://www.g3ycc.karoo.net/ant1.htm.

Seems ideal if you have a small garden (like me) to get on 160 meters, if it
works ?.

''It consists of 140 feet of insulated wire, the first half of which (70
feet) is
space wound on an insulated tube. I used glass fibre tubing which was to
hand,
but PVC may be used also. Tube is 1 1/2 inches in diameter and about 5 feet
6
inches long. The turns are about 0.5 inches apart. Mount tube at top of
mast. The other 70 feet of wire
acts as a loading wire and slope down from the top of the coil to near
ground
level. The system is coax fed to the base of the coil, with the shield or
braiding going to earth.''

The only suspect point I can see about this antenna is, if the tube is
mounted at the top of a mast, it means your going to have a very long earth
run from the coax feed point to ground.

Andy

2387. Re: High Serria 1800DX

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 14:30:56 UTC
From: oceanview2002@earthlink.net
Message-ID: <999cf256.0211130630.48c066b9@posting.google.com>
Source record: 131426

I don't agree. Unlike Lonnie, I have owned both. The High Sierra is better
quality than the Stealth. I bought the Stealth first. I had to send it back three times because the coil kept jamming. Here's what happens, the supposed high quality coil is made from a platic disk. When you run the coil all the way up or down, IT JAMS! Then, you must send it back to the factory..Charlie's garage, for repair. I also had some of the fingerstock break off.

My HS1500MKII has never jammed. It doesn't use fingerstock. It has never been a problem. It is a beautiful antenna. It is really made in a shop with employees who do care; not someone's garage. I have recommended the High Sierra antennas to mind friends and they are happy too. Buy the High Sierra.

By the way, when I tried to get my money back from Charlie, he refused. As he says in the poorly written instruction book, when you buy it, it's yours! No refunds.

73, Fred

2388. Re: Pattern of *Tri-Di-Pole*+++

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 14:54:03 UTC
From: DipoleDude@webtv.net
Message-ID: <23311-3DD2678B-6@storefull-2355.public.lawson.webtv.net>
Source record: 131427

Another couple of antenna misnomers.

Rule 1: Then how do explain the THOUSANDS of feet of grounding wire used in broadcasting set-ups? Or how do you account for the many hundreds of feet of "artificial" grounding radials when operating an elevated ground plane antenna for 40 meters? (i.e. approx. 33 feet times 4 radials coming down at a 45 degree angle.)

Rule 2: When working DX on 6,10,15,20...the higher the better is NOT the best "rule of thumb". Antenna height equal to wavelength offers the best angle of DX.

73, Mike

Please, no jokes about the Web-TV. My 'puter is all tied up with ham stuff.

2389. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 15:29:54 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <SduA9.5691$XF5.847853@news2.west.cox.net>
Source record: 131428

See URL:
http://www.hamstick.com/

They can be used in several configurations

The verticals will require radials or a ground plane such as a car body for mobile use.

Two end to end can be used as vertical or horizontal dipole.

They are generally two-piece MONOBAND ANTENNAS (shortened design with accompaning reduced band width and efficiency as in all shortened antennas)

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"Pete Holden" <peholden@attbi.com> wrote in message
news:OrpA9.14166$nB.2047@sccrnsc03...
> What type of antenna is a hamstick? (Vertical dipole, ground plane, etc)
>
> Would it benefit from radials?
>
> Pete KA�TZK
>
>

2390. 2M antenna for marine band?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 16:03:07 UTC
From: cprstn54zz@att.net
Message-ID: <3dd270de.272959406@news-server.optonline.net>
Source record: 131429

I need some help interpreting these results. The purpose is to see what I lose if I use a 2M ham antenna for marine VHF. What I gain is domestic tranquility by not having a second antenna in a visible place.

I used a VX-150 ham handheld and an HX-460S marine handheld. My measurements were with an MFJ-924 VHF meter/tuner. The feedline is RG-8X 20 ft long.

Each radio had a fully charged battery and was also powered by the wall wart. Each showed 6 watts and SWR=1 when connected to two different antennas respectively resonant for each band.

When I tried the marine handheld with the ham antenna (a homebrew J-Pole), indicated power dropped to 4 watts and SWR was 1.25.

Does this necessarily mean I am losing roughly 33% of my signal by using the nonresonant ham antenna for the marine radio?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

2391. Looking for Ham Radio Magazine March 1968

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 16:11:19 UTC
From: canyon <kloc@commspeed.net>
Message-ID: <1037204459.470453@news.commspeed.net>
Source record: 131430
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hi Guys,

I am looking for an article in Ham Radio Magazine, March 1968.
The article is "Modifing the Yaesu FT-310 for 30 Meters"
I would be interested in the issue or a copy of the article.

Thank you very much,

WA4MNT

2392. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 16:52:07 UTC
From: Pete Holden <peholden@attbi.com>
Message-ID: <XqvA9.18392$ME6.11261@rwcrnsc53>
Source record: 131431

Gosh, Ken, what a helpful answer. God will bless you, I'm sure, despite your shortcomings.

Pete

"Ken Bessler" <kg0wx@yahoo.com> wrote in message news:49qA9.24710$hR3.15982@news2.central.cox.net...
>
> "Pete Holden" <peholden@attbi.com> wrote in message
> news:OrpA9.14166$nB.2047@sccrnsc03...
> > What type of antenna is a hamstick? (Vertical dipole, ground plane, etc)
> >
> > Would it benefit from radials?
> >
> > Pete KA�TZK
> >
>
> You've been licensed since 11 December 1995 and currently hold an ADVANCED
> ticket. How is it possible that you don't know the answer to such a simple
> question?
>
> Just wondering.....
>
>

2393. Re: High Serria 1800DX

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 17:01:25 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <GyvA9.12769$wO4.1348@news.bellsouth.net>
Source record: 131432

Bill East <beast@pcs.mb.ca> wrote in message
news:xmUz9.6489$i%.1631143@localhost...
>
> What do think of this mobile antenna ?. Where is it installed on your
> vehicle.? What mounting hardware did you use to mount the screwdriver
> antenna?
> What rig and what acc. are you using to tune the screwdriver?What
> performance on HF and 6 meters are you experiencing with this
> antenna.Anything to help be
> decide between the high serria or stealth .
> Thinking of getting a screwdriver.
> thanks,
> Bill

Take a look at www.qsl.net/k4kwh

Jerry

>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.391 / Virus Database: 222 - Release Date: 9/20/02

2394. Re: antenna understanding

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 17:24:39 UTC
From: tdonaly@aol.com
Message-ID: <20021113122439.04270.00004820@mb-mo.aol.com>
Source record: 131433

Reg quoted Lord Kelvin,
>
>"When you can measure what you are speaking about and express it in numbers
>you know something about it. But when you cannot measure it, when you cannot
>express it in numbers, your knowledge is of a meagre and unsatisfactory
>kind. It may be the beginning of knowledge but you have scarcely in your
>thoughts advanced to the state of science."
>
>: William Thomson, Lord Kelvin, 1824-1907.
>

Hi Reg,
get out your Ouija board and ask Mr. Thompson how to get specific
numbers for both the momentum and position of, say, a particular electron at
a given time. Many of us would like to know how to do that.
73,
Tom Donaly, KA6RUH

2395. Re: Anybody tried this 160m antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 18:23:52 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD298B8.9D7151C8@cwis.net>
Source record: 131434

Andy,
I don't see why it wouldn't work. I seriously doubt if
it works as well as claimed though. A '30Khz' bandwidth?
'Doc

2396. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 18:42:26 UTC
From: yeah_right@noway.com
Message-ID: <3dd29c39.42794754@news.verizon.net>
Source record: 131435

On Wed, 13 Nov 2002 16:52:07 GMT, "Pete Holden" <peholden@attbi.com>
wrote:

>Gosh, Ken, what a helpful answer. God will bless you, I'm sure, despite
>your shortcomings.
>
>Pete

Pete,

I was just thinking the same thing. Many hams (including myself)
often get licensed and then run into difficult situations (lack of
money, lack of a location) for putting up a station. It is possible
that the original post came from a guy who hasn't used hamsticks
before, despite how long he has been licensed.

I was licensed as a Tech Plus in 1994, and I had never heard of a
hamstick until I got my General class ticket about a month ago.

I guess I'm a LID.

It's guys like this that keep people from asking questions and
LEARNING. God forbid that anyone learns anything new!

Sincerley,

Scott Keller
N9WDH

2397. Re: CAT5 cable to control remote antenna switch. Thoughts?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 18:48:55 UTC
From: KA9CAR <nospam@nospam.usa>
Message-ID: <aqu6kl$30sa$1@news1.tribune.com>
Source record: 131436

Plenum rated Cat 5 will be more expensive but probably survive the burial
better.
KA9CAR

"Mark" <golfradio@yahoo.com> wrote in message
news:21b5602c.0211121328.3563c373@posting.google.com...
> I have a 150' run to a remote antenna switch and am wondering if some
> cheap 8-conductor CAT5 cable would work. It would be buried for
> approx. 100' then up the tower another 50'or so. Anyone try this? Any
> thoughts pro or con?
>
> 73', Mark

2398. Help - Gap Challenger - 2nd Request

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 20:40:36 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DD2B8C4.40A1D657@shaw.ca>
Source record: 131437

Hi,
I have a Gap Challenger, but the manual which I was
able to download from the net has very poor graphics
which are basically unreadable.

There are only four graphics in the manual. If someone
could scan them and e-mail them to me I would be
eternally gratefull>

I am trying to beat the snow -- we've already had four
inches, but it is melting and I may yet get a window of
opportunity to put the GAP up, but first I need to know
how to properly assemble it.

Thanks in advance for any assistance...
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

2399. Re: antenna understanding

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 20:56:33 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aquea0$br1$1@helle.btinternet.com>
Source record: 131438

Tom, Mr Thomson says, no problem - all that is possible to be known about
the position of an electron can be described in terms of probability density
functions. The numbers in such functions are just as specific as in any
other sort.

Reg, G4FGQ
==========

> Hi Reg,
> get out your Ouija board and ask Mr. Thompson how to get specific
> numbers for both the momentum and position of, say, a particular electron
at
> a given time. Many of us would like to know how to do that.
> 73,
> Tom Donaly, KA6RUH

2400. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 21:12:15 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <aquf80$p8e@r02n01.cac.psu.edu>
Source record: 131439

HI ALL:

But if one can post to a News group, one can also do a GOOGLE search and in about 30 sec. have

588 hits on Hamsticks. One could even go the manufactures web site and get the information from the

"horses mouth". I feel about this a little like I do about hams buying dipoles. Some things someone with

a ham ticket should do for them self's.

--
John Passaneau, W3JXP
Physics Dept. Electronics Shop
Penn State University
104 Davey Lab, University Park , Pa. 16802
814.863.4297, jxp16@psu.edu

"Scott Keller" <yeah_right@noway.com> wrote in message news:3dd29c39.42794754@news.verizon.net...
> On Wed, 13 Nov 2002 16:52:07 GMT, "Pete Holden" <peholden@attbi.com>
> wrote:
>
> >Gosh, Ken, what a helpful answer. God will bless you, I'm sure, despite
> >your shortcomings.
> >
> >Pete
>
> Pete,
>
> I was just thinking the same thing. Many hams (including myself)
> often get licensed and then run into difficult situations (lack of
> money, lack of a location) for putting up a station. It is possible
> that the original post came from a guy who hasn't used hamsticks
> before, despite how long he has been licensed.
>
> I was licensed as a Tech Plus in 1994, and I had never heard of a
> hamstick until I got my General class ticket about a month ago.
>
> I guess I'm a LID.
>
> It's guys like this that keep people from asking questions and
> LEARNING. God forbid that anyone learns anything new!
>

> Sincerley,
>
> Scott Keller
> N9WDH

2401. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 21:33:57 UTC
From: Pete Holden <peholden@attbi.com>
Message-ID: <9zzA9.19130$nB.2413@sccrnsc03>
Source record: 131440

Thank you, Scott, for your note.

Mr. Bessler has me pegged, I suppose, as a LID. I must confess that when I got my Advanced ticket I studied very hard (I even got my code speed up above 20 wpm for the Extra test) and got the highest level license I could. But then, I settled into enjoying ragchewing on the CW bands and have since forgetten much of the theory I learned.

I do my best to put out a clean signal and clear, solid copy code that I feel I can be proud of. I am civil on the air to everyone I meet and, therefore, I hope, a credit to our hobby. But, it's true that I haven't devoted myself to the technical side of radio as much as I should since my life has other endeavors which consume me.

If that makes me a LID, well so be it. But before the Besslers of the world try to drum me out of the hobby they might consider that after they have thinned the ranks, commercial equipment would disappear for lack of a market and amateur radio would become a political orphan. So, I'll muddle on.

Pete

2402. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 21:51:05 UTC
From: Pete Holden <peholden@attbi.com>
Message-ID: <dPzA9.19916$ME6.10525@rwcrnsc53>
Source record: 131441

Virtually every question on this newsgroup could be answered by independent study and research, John. I thought, though, that the point of the group was to provide a forum for some friendly chat and exchange of ideas.

You and Bessler add nothing to the hobby, serve only to diminish yourselves, and if standing eye to eye with me, would likely wet your pants before managing to be so rude. Unfortunately, this format sometimes brings out the worst in people.

73s Pete

"John Passaneau" <jxp16@psu.edu> wrote in message
news:aquf80$p8e@r02n01.cac.psu.edu...
> HI ALL:
>
> But if one can post to a News group, one can also do a GOOGLE search and
in
> about 30 sec. have
>
> 588 hits on Hamsticks. One could even go the manufactures web site and get
> the information from the
>
> "horses mouth". I feel about this a little like I do about hams buying
> dipoles. Some things someone with
>
> a ham ticket should do for them self's.
>
>
>
>
>
> --
> John Passaneau, W3JXP
> Physics Dept. Electronics Shop
> Penn State University
> 104 Davey Lab, University Park , Pa. 16802
> 814.863.4297, jxp16@psu.edu
>
>
>
> "Scott Keller" <yeah_right@noway.com> wrote in message
> news:3dd29c39.42794754@news.verizon.net...
> > On Wed, 13 Nov 2002 16:52:07 GMT, "Pete Holden" <peholden@attbi.com>
> > wrote:
> >

> > >Gosh, Ken, what a helpful answer. God will bless you, I'm sure,
despite
> > >your shortcomings.
> > >
> > >Pete
> >
> > Pete,
> >
> > I was just thinking the same thing. Many hams (including myself)
> > often get licensed and then run into difficult situations (lack of
> > money, lack of a location) for putting up a station. It is possible
> > that the original post came from a guy who hasn't used hamsticks
> > before, despite how long he has been licensed.
> >
> > I was licensed as a Tech Plus in 1994, and I had never heard of a
> > hamstick until I got my General class ticket about a month ago.
> >
> > I guess I'm a LID.
> >
> > It's guys like this that keep people from asking questions and
> > LEARNING. God forbid that anyone learns anything new!
> >
> > Sincerley,
> >
> > Scott Keller
> > N9WDH
>
>

2403. Re: TA-33 dimensions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 22:25:35 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <NeucnYDEHaObTE-gXTWcpA@comcast.com>
Source record: 131442

Dick,

Probably right, but on the piece of junk TA33JR it is the other way. I have one, stored in the garage.

Tam/WB2TT
"Dick Carroll" <dixie@townsqr.com> wrote in message news:aqse3p$4pv$0@208.206.142.90...
> The director end will be the end with longest spacing to the driven
> element, and the reflector end will be the end with shortest spacing to
> the DE. True for any 'standard' three element yagi.
>
> Dick

2404. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-13 22:47:34 UTC
From: tdonaly@aol.com
Message-ID: <20021113174734.02904.00004085@mb-dd.aol.com>
Source record: 131443

Pete wrote,
>
>Thank you, Scott, for your note.
>
>Mr. Bessler has me pegged, I suppose, as a LID. I must confess that when I
>got my Advanced ticket I studied very hard (I even got my code speed up
>above 20 wpm for the Extra test) and got the highest level license I could.
>But then, I settled into enjoying ragchewing on the CW bands and have since
>forgetten much of the theory I learned.
>
>I do my best to put out a clean signal and clear, solid copy code that I
>feel I can be proud of. I am civil on the air to everyone I meet and,
>therefore, I hope, a credit to our hobby. But, it's true that I haven't
>devoted myself to the technical side of radio as much as I should since my
>life has other endeavors which consume me.
>
>If that makes me a LID, well so be it. But before the Besslers of the world
>try to drum me out of the hobby they might consider that after they have
>thinned the ranks, commercial equipment would disappear for lack of a market
>and amateur radio would become a political orphan. So, I'll muddle on.
>
>Pete
>
There's no earthly reason why any ham should be an expert on any
particular commercial antenna. On some level, all antennas are
difficult to understand, and if someone asks a question that might lead
another to have a better understanding of the fundamental
operation of even simple antennas it's a good thing. The surest way
to betray your own ignorance is to make fun of someone else's.

Tom Donaly, KA6RUH, a fellow LID.

2405. Vertical Yagi Simulation in EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 00:03:45 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <i9n5tu8vfqa67f413po54bfnjelkufq3ma@4ax.com>
Source record: 131444

I downloaded EZNEC Demo, and started playing with a vertical antenna design for 11 meters. I wanted to optimize for low angle gain, and a moderate amount of directivity, while keeping the construction simple. After varying the lengths of both elements, and the position of the director, I came up with the following (please refer to the EZNEC output below).

Since I'm very new to this kind of thing, I don't suppose for a moment that I've come up with a new design, so can someone tell me what this would be called? It's sort of a lop-sided Yagi, but none of the lengths come out right for a standard Yagi, according to the antenna references I've got. Unless I missed something, it also has better gain and lower angle than a textbook two element Yagi that has been tipped vertical.

My second question is: Since the elements are kind of long, could I use some linear loaded mobile monopoles, cut to the appropriate lengths (like a Firestik 5/8 wave for the driven element, and a trimmed down Firestik 5/8 wave for the director)? Come to think of it, is the driven element actually a 5/8 wave that just ended up physically shorter due to end effect? It seems like it is a little too short to be 5/8 wave, but I don't know for sure.

If I could match the impedance, and use something like a couple Firestik KW6's, it might make a neat little package (and a fun project).

--Mike

EZNEC Demo ver. 3.0

Optimized 11 Meter Vertical Ya 11/13/2002 3:15:52 PM

---------- ANTENNA DESCRIPTION ----------

Frequency = 27.21 MHz
Wire Loss: Zero

---------- WIRES ----------

No. End 1 Coord. (m) End 2 Coord. (m)
Dia (mm) Segs
Conn. X Y Z Conn. X Y Z
1 0, 0, 3 0, 0, 9.4
4 9
2 -1.4, 0, 3 -1.4, 0, 8.4
4 9

Total Segments: 18

---------- SOURCES ----------

No. Specified Pos. Actual Pos. Amplitude Phase
Type
Wire # % From E1 % From E1 Seg (V/A) (deg.)
1 1 50.00 50.00 5 1 0 I

No loads specified

No transmission lines specified

Ground type is Real, MININEC-Type

---------- MEDIA ----------

No. Cond. Diel. Const. Height R Coord.
(S/m) (m) (m)
1 0.002 10 0 0

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http://www.newsfeed.com The #1 Newsgroup Service in the World!
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2406. Re: Help - Gap Challenger - 2nd Request

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 00:16:28 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DD2EB5C.FF344A49@shaw.ca>
Source record: 131454

Irv Finkleman wrote:
>
> Hi,
> I have a Gap Challenger, but the manual which I was
> able to download from the net has very poor graphics
> which are basically unreadable.
>
> There are only four graphics in the manual. ....

Thanks to Pete Norloff KG4OJT I now have the graphics. I should point out to anyone else in my predicament that the graphics Pete provided differ somewhat from those in the PDF manual available on the Gap antenna sight, and the PDF manual from Gap differs from the one that Pete has. In any event, I have enough now to begin setting things up -- as soon as the snow clears! If anyone else needs the info, I will gladly pass it on. Thanks again to Pete! Love that spirit of Ham Radio!!!

--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

2407. Re: antenna understanding

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 00:27:38 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3DD2EDEC.B96D2F7@attbi.com>
Source record: 131445

If I remember from the olden days ... that problem was 'solved' [almost]
by the Heisenberg Uncertainty Principle. You can know ALMOST where it is
and Almost what it's momentum is BUT not both at the same time.

So, it can be measured with a defined amount of uncertainty!!

The Old Man, Deacon Dave, W1MCE

Tdonaly wrote:
>
> Reg quoted Lord Kelvin,
> >
> >"When you can measure what you are speaking about and express it in numbers
> >you know something about it. But when you cannot measure it, when you cannot
> >express it in numbers, your knowledge is of a meagre and unsatisfactory
> >kind. It may be the beginning of knowledge but you have scarcely in your
> >thoughts advanced to the state of science."
> >
> >: William Thomson, Lord Kelvin, 1824-1907.
> >
>
> Hi Reg,
> get out your Ouija board and ask Mr. Thompson how to get specific
> numbers for both the momentum and position of, say, a particular electron at
> a given time. Many of us would like to know how to do that.
> 73,
> Tom Donaly, KA6RUH

2408. Re: 2M antenna for marine band?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 00:34:33 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3DD2EF8D.7B5E7306@attbi.com>
Source record: 131446

Basically YES!

I doubt the VSWR reading. It should be higher!

The radio is shutting down the power level to minimize heat [damage] in
the output transistors.

Deacon Dave, W1MCE

Ken wrote:
>
> I need some help interpreting these results. The purpose is to see
> what I lose if I use a 2M ham antenna for marine VHF. What I gain is
> domestic tranquility by not having a second antenna in a visible
> place.
>
> I used a VX-150 ham handheld and an HX-460S marine handheld. My
> measurements were with an MFJ-924 VHF meter/tuner. The feedline is
> RG-8X 20 ft long.
>
> Each radio had a fully charged battery and was also powered by the
> wall wart. Each showed 6 watts and SWR=1 when connected to two
> different antennas respectively resonant for each band.
>
> When I tried the marine handheld with the ham antenna (a homebrew
> J-Pole), indicated power dropped to 4 watts and SWR was 1.25.
>
> Does this necessarily mean I am losing roughly 33% of my signal by
> using the nonresonant ham antenna for the marine radio?
>
> Ken KC2JDY
>
> Ken
> (to reply via email
> remove "zz" from address)

2409. Re: 2M antenna for marine band?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 00:39:51 UTC
From: "c.wright" <c.wright@auckland.ac.nz>
Message-ID: <3DD2F0D7.64E84967@auckland.ac.nz>
Source record: 131447

Ken wrote:

> I need some help interpreting these results. The purpose is to see
> what I lose if I use a 2M ham antenna for marine VHF. What I gain is
> domestic tranquility by not having a second antenna in a visible
> place.
>
> I used a VX-150 ham handheld and an HX-460S marine handheld. My
> measurements were with an MFJ-924 VHF meter/tuner. The feedline is
> RG-8X 20 ft long.
>
> Each radio had a fully charged battery and was also powered by the
> wall wart. Each showed 6 watts and SWR=1 when connected to two
> different antennas respectively resonant for each band.
>
> When I tried the marine handheld with the ham antenna (a homebrew
> J-Pole), indicated power dropped to 4 watts and SWR was 1.25.
>
> Does this necessarily mean I am losing roughly 33% of my signal by
> using the nonresonant ham antenna for the marine radio?
>
> Ken KC2JDY
>
> Ken
> (to reply via email
> remove "zz" from address)

Good Day Ken.
I'm afraid you are right about the power loss
with a 146 MHz Jpole antenna.
The marine band is around 156 MHz so the antenna is about 10% too low in
frequency.
In fact I'm surprised that your SWR was only 1.25/1. I've found that the
Jpole is a useful omnidirectional antenna but its bandwidth is limited
like any other antenna.
Since the Jpole is a pretty unobtrusive antenna anyway wouldn't it be
possible to disguise it as something else? I've even seen them built
inside a fibreglass mast or flagpole and give good results. After all the
marine antenna is going to be about 10% shorter than the ham one.
I've just refurbished my 2 metre Jpole and I'm afraid I wouldn't like to
drive an expensive handheld into an RF load which might cause damage to
the TX.
Hope this helps 73 Cliff Wright ZL1BDA ex G3NIA.

2410. Re: Coax ground

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 01:12:15 UTC
From: k7itm@aol.com
Message-ID: <3200347.0211131712.17bfcd41@posting.google.com>
Source record: 131448

Bill Ogden <ogden@us.ibm.com> wrote in message news:<3DD1082C.FC4FF2BC@us.ibm.com>...

> With a half-sloper, the coax shield would be connected to the tower at the feed
> point (about 40' up in my case) and the base. The shield and the tower would
> be, in effect, parallel elements. With the small spacing involved (about 2') on
> 160 - 30 meters, I guess the shield and tower would simply act as a thicker
> element.

I'd think so, too, Bill. Unless there is some way to differentially excite them, they should just carry in-phase currents (distinct from the transmission line currents inside the coax). The closer you can keep the coax to the tower, the better. At the base of the tower, what happens to the coax? Is there some place it can "give up" its antenna current to the ground? That is, is the coax then burried, going to the shack?

If you want to keep antenna current off the coax, you can put ferrites around it. If you do that where it's running parallel to the tower, I suppose the tower will just couple to the line. But it might be worth doing at the bottom, to encourage the current to stay on the tower. That has the effect of exciting the line composed of the outer conductor of the coax and the tower, but I think just in a way to get the current off the coax at the bottom.

So...what is the problem you're trying to solve? I'd question whether you'll notice any significant difference in signals whether you tie the coax outer to the tower at the bottom or not. If you don't, is there some other need to do it? Could that need be addressed some other way? (Why do it if you don't need to?)

Cheers,
Tom

2411. Re: 2M antenna for marine band?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 01:12:36 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <p=fSPZNMGnwgjMiBcuJG5Rudn4LK@4ax.com>
Source record: 131449

cprstn54zz@att.net (Ken) wrote:

>I need some help interpreting these results. The purpose is to see
>what I lose if I use a 2M ham antenna for marine VHF. What I gain is
>domestic tranquility by not having a second antenna in a visible
>place.
>
>I used a VX-150 ham handheld and an HX-460S marine handheld. My
>measurements were with an MFJ-924 VHF meter/tuner. The feedline is
>RG-8X 20 ft long.
>
>Each radio had a fully charged battery and was also powered by the
>wall wart. Each showed 6 watts and SWR=1 when connected to two
>different antennas respectively resonant for each band.
>
>When I tried the marine handheld with the ham antenna (a homebrew
>J-Pole), indicated power dropped to 4 watts and SWR was 1.25.

I've seen much higher swr just by a whip being cut for the wrong part of the 2 meter band -- you're 10 mhz off, so expect to lose some power.

And easy fix would be to shorten the 2 meter antenna to make it resonant on the marine band, then alligator-clip a pigtail to it to make it resonant on 2 meters. Actually, a small alligaor clip, by itself, might be all that's needed to add to the tip of the antenna.

Bob
k5wqg
>
>Does this necessarily mean I am losing roughly 33% of my signal by
>using the nonresonant ham antenna for the marine radio?
>
>Ken KC2JDY
>
>
>Ken
>(to reply via email
>remove "zz" from address)

2412. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 01:29:37 UTC
From: Ken Bessler <kg0wx@yahoo.com>
Message-ID: <50DA9.31865$hR3.26501@news2.central.cox.net>
Source record: 131450

"Pete Holden" <peholden@attbi.com> wrote in message
news:dPzA9.19916$ME6.10525@rwcrnsc53...
> Virtually every question on this newsgroup could be answered by
independent
> study and research, John. I thought, though, that the point of the group
> was to provide a forum for some friendly chat and exchange of ideas.
>
> You and Bessler add nothing to the hobby, serve only to diminish
yourselves,
> and if standing eye to eye with me, would likely wet your pants before
> managing to be so rude. Unfortunately, this format sometimes brings out
the
> worst in people.
>
> 73s Pete

You insult John when he did nothing wrong THEN wish him "73's"??????

And as far as "adding to the hobby" I suppose someone, license class not withstanding, who dosen't even know what a hamstick is has something worthwhile to contribute?

10-4 good buddy....

2413. Re: How to directly connect frequency counter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 01:34:45 UTC
From: k7itm@aol.com
Message-ID: <3200347.0211131734.1a55b37@posting.google.com>
Source record: 131451

cprstn54zz@att.net (Ken) wrote in message
news:<3dc7d7a3.441877046@news-server.optonline.net>...
...
> Can I "T" off the radio's SO-239, with one leg to the antenna and one
> to the frequency counter? How do I lower the voltage to the counter
> to under 1.4 volts without sucking power? Can I just put a 500 ohm
> resistor in the center condutor of the leg going to the counter or do
> I have to maintain 50 ohms to avoid massive reflection?

You can, but as Gerry suggests, a directional coupler is probably a
better solution...or even just part of a directional coupler. If you
put a 500 ohm resistor from your line to the counter input, and the
line to the antenna is about 50 ohms, you'll waste about 1/12 of your
power in the 500 ohms, and get about 1/11th the voltage across the
counter's input. But if you used a transformer, either a current or a
voltage transformer, you can get the same voltage to the counter while
wasting only about 1/11^2 or 1/120 of your power. It's perhaps a bit
harder to construct, but maybe worth it if you want to conserve all
the power you can. (1/10 of your power is only about .5dB...generally
not enough to get upset about...but of course antennas that can claim
0.5dB more gain try to make a big issue of it in some markets.) For
higher power from the transmitter, it can keep you from having to use
big resistors to handle the power dissipation of the attenuator. You
can make a coupler with discrete toroid transformers, or with
something as simple as a piece of insulated wire slipped under the
coax braid for a couple inches (where it will "see" a lot more field
than you find outside the braid).

Is 500 ohms enough? Is your transmitter only 1/2 watt?

Cheers,
Tom

2414. Re: High Serria 1800DX

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 01:40:26 UTC
From: Ed Juge/NM <ed@juge.org>
Message-ID: <CeDA9.16268$NV.303086@news.direcpc.com>
Source record: 131452

Well, Gus, I won't argue the relative merits of the two with you since I have no personal experience with the HS and obviously you do. However, I will say that you are the first person I have heard from who claims to have had any problem with the Stealth. Well, make that "second guy." I did hear about one, in Europe, whose coil developed "sweat" inside. Charlie sent him a new coil along with a specialized tool required to install it... no charge.

I have run my coil up against both stops several times with no problems, and held them there for 1/4-minute or more. If Stealth coils ever did jam or break, it must have been fixed a year or more ago. My previous coil didn't jam or break either. Charlie now furnishes two tiny thermal circuit breakers, to go in the control lines, which temporarily cut the power when this happens.

Refund? Never knew anyone who asked him for one. I do know he will give you a decent trade-in on your old Stealth antenna if you're upgrading to something newer and better. Virtually unheard of with antennas. I have been most impressed by his customer service... reminds me of TenTec's legendary support.

Glad you're happy with your HS.

73... Ed, W5EJ

"Gus" <oceanview2002@earthlink.net> wrote in message
news:999cf256.0211130630.48c066b9@posting.google.com...
> I don't agree. Unlike Lonnie, I have owned both. The High Sierra is
> betterea
> quality than the Stealth. I bought the Stealth first. I had to send
> it back three times because the coil kept jamming. Here's what
> happens, the supposed high quality coil is made from a platic disk.
> When you run the coil all the way up or down, IT JAMS! Then, you must
> send it back to the factory..Charlie's garage, for repair. I also had
> some of the fingerstock break off.
>
> My HS1500MKII has never jammed. It doesn't use fingerstock. It has
> never been a problem. It is a beautiful antenna. It is really made
> in a shop with employees who do care; not someone's garage. I have
> recommended the High Sierra antennas to mind friends and they are
> happy too. Buy the High Sierra.
>
> By the way, when I tried to get my money back from Charlie, he
> refused. As he says in the poorly written instruction book, when you
> buy it, it's yours! No refunds.
>

> 73, Fred

2415. Re: How to directly connect frequency counter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 01:58:15 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <dn06tu0m1f5ilj3l4756rmr8rp1q0fpjbh@4ax.com>
Source record: 131453

On 13 Nov 2002 17:34:45 -0800, k7itm@aol.com (Tom Bruhns) wrote:

|cprstn54zz@att.net (Ken) wrote in message
news:<3dc7d7a3.441877046@news-server.optonline.net>...
|...
|> Can I "T" off the radio's SO-239, with one leg to the antenna and one
|> to the frequency counter? How do I lower the voltage to the counter
|> to under 1.4 volts without sucking power? Can I just put a 500 ohm
|> resistor in the center condutor of the leg going to the counter or do
|> I have to maintain 50 ohms to avoid massive reflection?
|
|You can, but as Gerry suggests, a directional coupler is probably a
|better solution...or even just part of a directional coupler. If you
|put a 500 ohm resistor from your line to the counter input, and the
|line to the antenna is about 50 ohms, you'll waste about 1/12 of your
|power in the 500 ohms, and get about 1/11th the voltage across the
|counter's input. But if you used a transformer, either a current or a
|voltage transformer, you can get the same voltage to the counter while
|wasting only about 1/11^2 or 1/120 of your power. It's perhaps a bit
|harder to construct, but maybe worth it if you want to conserve all
|the power you can. (1/10 of your power is only about .5dB...generally
|not enough to get upset about...but of course antennas that can claim
|0.5dB more gain try to make a big issue of it in some markets.) For
|higher power from the transmitter, it can keep you from having to use
|big resistors to handle the power dissipation of the attenuator. You
|can make a coupler with discrete toroid transformers, or with
|something as simple as a piece of insulated wire slipped under the
|coax braid for a couple inches (where it will "see" a lot more field
|than you find outside the braid).
|
|Is 500 ohms enough? Is your transmitter only 1/2 watt?

All of this begs the question, why go to all of this trouble to use a
frequency counter that is no more accurate that the digital readout on
the radio?

2416. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 02:26:02 UTC
From: "Michael W. McGinley" <n0jvt@cox.net>
Message-ID: <_QDA9.32324$hR3.16398@news2.central.cox.net>
Source record: 131455

Hello Everyone

Having read all the posts in this thread, I can find nothing really wrong
with KG0WX and his
reply to your Orig Post Actually it was kind of like somebody who grew up In
the U.S
while never having heard of McDonalds.

A Hamstick is pretty much like the McDonalds's of the mobile HF antenna
world.(Cheap and made in Mass Quanitys)
not everyone has used or owned one but every Amatuer radio Op i know of (
All classes) know of the hamstick
heck, i even heard of hamsticks and I wasn't active on HF until about 1-1/2
Years ago when ken (KG0WX)
encouraged me to upgrade to general class

>But before the Besslers of the world try to drum me out of the hobby

F.Y.I : as a matter of fact, If it wasn't for Ken i would have never been
able to reassemble my shack
due to a low cash flow
Actually he had gone out of his way to buy gear for me with no more than
a " pay me what you can when you can " from him....Now thats a Elmer.

I serioulsy don't think ken really ment anything bad about the comment...so
settle down, take a
deep breath and relax. Amatuer radio is a public service/Hobby not a religon

just my 1/50 of a $

Mike, N0JVT

If we must fight about somthing how about the Ham Vs. CB'rs..... it 's much
more interesting :-)

-

"Pete Holden" <peholden@attbi.com> wrote in message
news:9zzA9.19130$nB.2413@sccrnsc03...
> Thank you, Scott, for your note.
>
> Mr. Bessler has me pegged, I suppose, as a LID. I must confess that when
I
> got my Advanced ticket I studied very hard (I even got my code speed up
> above 20 wpm for the Extra test) and got the highest level license I
could.
> But then, I settled into enjoying ragchewing on the CW bands and have

since
> forgetten much of the theory I learned.
>
> I do my best to put out a clean signal and clear, solid copy code that I
> feel I can be proud of. I am civil on the air to everyone I meet and,
> therefore, I hope, a credit to our hobby. But, it's true that I haven't
> devoted myself to the technical side of radio as much as I should since my
> life has other endeavors which consume me.
>
> If that makes me a LID, well so be it. But before the Besslers of the
world
> try to drum me out of the hobby they might consider that after they have
> thinned the ranks, commercial equipment would disappear for lack of a
market
> and amateur radio would become a political orphan. So, I'll muddle on.
>
> Pete
>
>

2417. Re: Pattern of *Tri-Di-Pole*+++

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 03:11:42 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <LvEA9.11293$QD6.1147069@news20.bellglobal.com>
Source record: 131456

"Mike Roe Farad" (uF.. ha ha).
> Please, no jokes about the Web-TV.

The thought never crossed my mind. Some of our finest members use WebTV. Using (or even owning WebTV) is nothing to be ashamed of. Really. Just the other day I was watching NASA TV on the Internet - practically the same thing. ;-)

> Rule 1: Then how do explain the THOUSANDS of feet
> of grounding wire used in broadcasting set-ups? <etc.>

I assume that the broadcasters don't put all those THOUSANDS of feet of grounding wire in series... The world still seeks the ideal (broadband) portable ground.

> Rule 2: When working DX on 6,10,15,20...the higher the
> better is NOT the best "rule of thumb". Antenna height
> equal to wavelength offers the best angle of DX.

I didn't know that.

2418. Re: 2M antenna for marine band?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 05:19:00 UTC
From: cprstn54zz@att.net
Message-ID: <3dd33003.321892265@news-server.optonline.net>
Source record: 131457

On Thu, 14 Nov 2002 13:39:51 +1300, "c.wright"
<c.wright@auckland.ac.nz> wrote:
>Since the Jpole is a pretty unobtrusive antenna anyway wouldn't it be
>possible to disguise it as something else?

The J-Pole is a temporary, unobtrusive antenna attached to a nearby
dormer about 12 ft up. It is blocked for approximately 170 degrees by
the rest of the house. I used it for the test.

The permanent antenna is an 8 ft long tri-bander that is going 28 ft
up on the gable end of the house. I didn't test it yest, but will
now.

Everyone seems to think that the SWR should be higher. Is there a
simple test to see if the meter is working? Like switching the leads?
Then I should be reading reflected power (which should show very low)
and SWR should be very high.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

2419. Re: What is a good, small 6 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 05:34:09 UTC
From: nm2k@arrl.net
Message-ID: <b6d27e22.0211132134.7460d0f6@posting.google.com>
Source record: 131458

If the band is open, you do not need much of an antenna system or high power at all. If the band is closed, all of the antenna and power in the world won't make much difference when working DX.

The fancy antennas come in handy by giving the operator the ability to quell the voices of other hams when dealing with a weak signal.

I agree with AC6V in that a Cushcraft AR-6 is just fine for the casual operator. An MFJ six meter tuner can stretch the antenna's ability to work all over the six meter band.

Ed Cregger, NM2K

2420. 40m Dipole Improvements.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 08:56:40 UTC
From: M0DCM Dave <m0dcm@blueyonder.co.uk>
Message-ID: <dzJA9.4986$5Q5.2587@news-binary.blueyonder.co.uk>
Source record: 131459

Hi There,

I wonder if anyone can help?

I'm trying to think of ways to improve on my 40m half wave dipole and have a couple of ideas.

One idea is to put 2 40m half wave's together on the same balun so they fire at the same time, but one dipole would go East to West and the other would go North to South.

I wonder if anyone has ever tried this, if so how good is it?

So if anyone else has any more idea's for a 40m antenna let me know I would be interested.

Oh by the way my garden is 100feet long by around 22.5feet wide, and I also have permission to use the bottom 30feet of the nextdoor neighbours garden!!

Cheers.....

M0DCM Dave

2421. Re: 40m Dipole Improvements.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 09:03:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ut6t874u0jm684@corp.supernews.com>
Source record: 131460

Your idea will give you a dipole-like pattern (but filled in a little), with maxima to the NE-SW or NW-SE depending on the relative phasing between the dipoles. I also don't see how you'll fit these on your lot. Here are a few suggestions:

1. Put two dipoles at right angles like you suggest, but feed one directly, and the other through a quarter electrical wavelength (23'2" at 7.0 MHz for solid dielectric coax) 50 or 75 ohm coaxial cable. This will provide roughly a 90 degree phase shift between the dipoles and result in a more nearly circular pattern. You could also run a separate feedline from each to your shack and switch between them. But again, I don't see how this will fit.

2. Put up an inverted vee. This will give you improved performance off the ends, compared to a dipole. But you'll have to get it higher than a dipole to get comparable low angle radiation.

3. Use a vertical, with at least 6 - 8 ground radials. My experience is that this is pretty comparable to a dipole at 40 or so feet on 40 meters, but it depends heavily on the quality of the nearby ground.

4. Put up two verticals spaced a quarter wavelength apart, each with half a dozen or so ground radials. If you feed them with equal currents and 90 degree phasing(*), you'll get a good front/back ratio, which will help you reduce interference. You can switch them in either of two directions with this pattern. You can also feed them in phase to get an approximately omnidirectional pattern with better efficiency than you'd get with one. Feeding them out of phase will give you good nulls off the side, but the efficiency is likely to be low, so you might want to restrict this phasing to listening only.

5. Put up two verticals spaced a half wavelength apart, and feed them either in phase for a broadside pattern or out of phase for an end fire pattern. With two elements, these phasings are easy to achieve. For the in-phase pattern, just feed both with equal lengths of cable. To change to the out-of-phase pattern, just switch a half electrical wavelength of cable in series with one of the lines. Both patterns have good nulls at right angles, which can help you with interference.

Roy Lewallen, W7EL

(*) Unfortunately, getting this current ratio is more difficult with parallel verticals than with the crossed dipoles. To learn how to do it, see Chapter 8 of the _ARRL Antenna Book_ and/or "The Simplest Phased Array Feed System -- That Works" in the _ARRL Antenna Compendium_, Vol. 2.

M0DCM Dave wrote:
> Hi There,
>
> I wonder if anyone can help?
>
> I'm trying to think of ways to improve on my 40m half wave dipole and have a
> couple of ideas.
>
> One idea is to put 2 40m half wave's together on the same balun so they fire
> at the same time, but one dipole would go East to West and the other would
> go North to South.
>
> I wonder if anyone has ever tried this, if so how good is it?
>
> So if anyone else has any more idea's for a 40m antenna let me know I would
> be interested.
>
> Oh by the way my garden is 100feet long by around 22.5feet wide, and I also
> have permission to use the bottom 30feet of the nextdoor neighbours garden!!
>
> Cheers.....
>
> M0DCM Dave
>
>

2422. Multiband verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 12:24:41 UTC
From: Jamesv <jamesv@premierdisco.co.uk>
Message-ID: <3dd3960b_3@news1.vip.uk.com>
Source record: 131461
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

I am preparing to purchase a new multiband vertical for hf.

Before I do so, I would like to make good comparisoins to help me make the correct choice.

Does anyone have any idea where I can get technical and operational antenna comparisons on the net? Also any good, well priced supplier contacts would be appreciated.

Thanks

JV

2423. Re: Multiband verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 13:17:09 UTC
From: Rv! <nospam.im@work.thanks>
Message-ID: <1037279880.64950.0@iris.uk.clara.net>
Source record: 131465
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

"Jamesv" <jamesv@premierdisco.co.uk> wrote in message
news:3dd3960b_3@news1.vip.uk.com...
| I am preparing to purchase a new multiband vertical for hf.

He ain't heavy....

Rv!
MM0ANT

2424. Re: Looking for Ham Radio Magazine March 1968

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 13:23:39 UTC
From: Bob Liesenfeld <robert.liesenfeld@neicoltech.org>
Message-ID: <3DD3A3DB.90E48132@neicoltech.org>
Source record: 131464
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

canyon wrote:

> Hi Guys,
>
> I am looking for an article in Ham Radio Magazine, March 1968.
> The article is "Modifing the Yaesu FT-310 for 30 Meters"
> I would be interested in the issue or a copy of the article.

Canyon,
I have the complete set of Ham Radio on CDs and do not see an
article with this title in any issue. Also, I don't think we had 30
meters back in 1968. Did you mean QST or perhaps 73 and a different
year?

Bob L. WB0POQ

2425. Re: What is a good, small 6 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 13:23:46 UTC
From: rhatley <rhatley@zero.net>
Message-ID: <0v87tu0chr5gmttsdirhse3ovmr8qi67b3@4ax.com>
Source record: 131462

On 13 Nov 2002 21:34:09 -0800, nm2k@arrl.net (Ed Cregger) wrote:

>I agree with AC6V in that a Cushcraft AR-6 is just fine for the casual
>operator.

> An MFJ six meter tuner can stretch the antenna's ability to
>work all over the six meter band.

May I suggest one of the six meter antennas from KMA Antennas? Both will cover the whole band with swr under 1.5 and have gain equal to similar sized yagis. The website is www.kmaantennas.com.

RHatley

2426. Re: 2M antenna for marine band?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 13:32:50 UTC
From: cprstn54zz@att.net
Message-ID: <3dd3a5aa.352011750@news-server.optonline.net>
Source record: 131463

On Wed, 13 Nov 2002 16:03:07 GMT, cprstn54zz@att.net (Ken) wrote:
>When I tried the marine handheld with the ham antenna (a homebrew
>J-Pole), indicated power dropped to 4 watts and SWR was 1.25.

Ooops. Failed to recalibrate the meter for this rig. When done
properly, SWR is 2.5 -- not 1.25.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

2427. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 14:21:16 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <ar0bgo$10eo@r02n01.cac.psu.edu>
Source record: 131466

Well Pete:

I would have told you the same to your face, then the I would have answered your question. You may notice I work for a university. One of the main points of higher education is to show you how to do your own research. If you had done some research, you would then be able to ask a question that has some usefulness. As, does it work as they claim, is there anyway to make it work better, or will it do what I want it to do. Above all you would have had the pleasure of discovering something for your self. The things that a person remembers best are those they worked for on their own. If you do it often enough you too can be a "know it all" like I am.

73

--
John Passaneau, W3JXP
Physics Dept. Electronics Shop
Penn State University
104 Davey Lab, University Park , Pa. 16802
814.863.4297, jxp16@psu.edu

"Pete Holden" <peholden@attbi.com> wrote in message
news:dPzA9.19916$ME6.10525@rwcrnsc53...
> Virtually every question on this newsgroup could be answered by
independent
> study and research, John. I thought, though, that the point of the group
> was to provide a forum for some friendly chat and exchange of ideas.
>
> You and Bessler add nothing to the hobby, serve only to diminish
yourselves,
> and if standing eye to eye with me, would likely wet your pants before
> managing to be so rude. Unfortunately, this format sometimes brings out
the
> worst in people.
>
> 73s Pete
>stuff sniped

2428. Re: Multiband verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 14:33:29 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <ZuOA9.7687$XF5.1216377@news2.west.cox.net>
Source record: 131467
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

JV -- see eHam Antenna Reviews at URL:

http://www.eham.net/reviews/products/13

Antenna specs and manufacturers at URL:
http://ac6v.com/antdealer.htm

Good Radiating es DX
--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
==========
"Jamesv" <jamesv@premierdisco.co.uk> wrote in message
news:3dd3960b_3@news1.vip.uk.com...
> I am preparing to purchase a new multiband vertical for hf.
>
> Before I do so, I would like to make good comparisoins to help me make the
> correct choice.
>
> Does anyone have any idea where I can get technical and operational
antenna
> comparisons on the net? Also any good, well priced supplier contacts would
> be appreciated.
>
> Thanks
>
> JV
>
>

2429. Balun book?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 14:34:57 UTC
From: Ken Knecht <kenk2@mindspring.com>
Message-ID: <Xns92C64D20CAAEkenk2mindspringcom@198.99.146.10>
Source record: 131468

Xmas is coming! Can anyone suggest the name and author of a good in-print balun book so my sister can surprise me with it on Xmas morn?

TIA

Ken

2430. Re: Multiband verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 14:41:59 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <CrXTPSe0SwZOX6dyunqymgtHAwZH@4ax.com>
Source record: 131319

"Jamesv" <jamesv@premierdisco.co.uk> wrote:

>I am preparing to purchase a new multiband vertical for hf.
>
>Before I do so, I would like to make good comparisoins to help me make the
>correct choice.
>
>Does anyone have any idea where I can get technical and operational antenna
>comparisons on the net? Also any good, well priced supplier contacts would
>be appreciated.
>
>Thanks
>
>JV
>

There's a little book put out by Champion Radio Products that compares hf verticals. See their web site.

You can go to the ARRL site, the members only section (you have to subscribe to QST), and look at their product reviews.

You can go to eHam.net, and look at the product reviews of antennas, there.

There are also some pretty good technical papers on vertical antennas at the Bencher/Butternut web site.

Bob
k5qwg

2431. Re: Balun book?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 16:11:40 UTC
From: Eskay <Nospamve3jua@rac.ca>
Message-ID: <3DD3CB3C.57C7F0B3@rac.ca>
Source record: 131320

Every thing you always wanted to know about baluns and ununs,but were
afraid to ask?
Just kidding.
CQ magazine has a book by Jeery Sevick,W2FMI,called building and using
baluns and ununs...price $19.95..
73 de Sieb,VE3JUA.

Ken Knecht wrote:

> Xmas is coming! Can anyone suggest the name and author of a good
> in-print balun book so my sister can surprise me with it on Xmas
> morn?
>
> TIA
>
> Ken

2432. Re: 40m Dipole Improvements.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 16:36:21 UTC
From: nospam <xxxmmxxx@xxxspiritone.com>
Message-ID: <3DD3D104.50037F67@xxxspiritone.com>
Source record: 131325

I thought a 1/4 wave on 40 m was 16.7 ft?

Roy Lewallen wrote:

> Your idea will give you a dipole-like pattern (but filled in a little),
> with maxima to the NE-SW or NW-SE depending on the relative phasing
> between the dipoles. I also don't see how you'll fit these on your lot.
> Here are a few suggestions:
>
> 1. Put two dipoles at right angles like you suggest, but feed one
> directly, and the other through a quarter electrical wavelength (23'2"
> at 7.0 MHz for solid dielectric coax) 50 or 75 ohm coaxial cable. This
> will provide roughly a 90 degree phase shift between the dipoles and
> result in a more nearly circular pattern. You could also run a separate
> feedline from each to your shack and switch between them. But again, I
> don't see how this will fit.
>
> 2. Put up an inverted vee. This will give you improved performance off
> the ends, compared to a dipole. But you'll have to get it higher than a
> dipole to get comparable low angle radiation.
>
> 3. Use a vertical, with at least 6 - 8 ground radials. My experience is
> that this is pretty comparable to a dipole at 40 or so feet on 40
> meters, but it depends heavily on the quality of the nearby ground.
>
> 4. Put up two verticals spaced a quarter wavelength apart, each with
> half a dozen or so ground radials. If you feed them with equal currents
> and 90 degree phasing(*), you'll get a good front/back ratio, which will
> help you reduce interference. You can switch them in either of two
> directions with this pattern. You can also feed them in phase to get an
> approximately omnidirectional pattern with better efficiency than you'd
> get with one. Feeding them out of phase will give you good nulls off the
> side, but the efficiency is likely to be low, so you might want to
> restrict this phasing to listening only.
>
> 5. Put up two verticals spaced a half wavelength apart, and feed them
> either in phase for a broadside pattern or out of phase for an end fire
> pattern. With two elements, these phasings are easy to achieve. For the
> in-phase pattern, just feed both with equal lengths of cable. To change
> to the out-of-phase pattern, just switch a half electrical wavelength of
> cable in series with one of the lines. Both patterns have good nulls at
> right angles, which can help you with interference.
>
> Roy Lewallen, W7EL
>

> (*) Unfortunately, getting this current ratio is more difficult with
> parallel verticals than with the crossed dipoles. To learn how to do it,
> see Chapter 8 of the _ARRL Antenna Book_ and/or "The Simplest Phased
> Array Feed System -- That Works" in the _ARRL Antenna Compendium_, Vol. 2.
>
> M0DCM Dave wrote:
> > Hi There,
> >
> > I wonder if anyone can help?
> >
> > I'm trying to think of ways to improve on my 40m half wave dipole and have a
> > couple of ideas.
> >
> > One idea is to put 2 40m half wave's together on the same balun so they fire
> > at the same time, but one dipole would go East to West and the other would
> > go North to South.
> >
> > I wonder if anyone has ever tried this, if so how good is it?
> >
> > So if anyone else has any more idea's for a 40m antenna let me know I would
> > be interested.
> >
> > Oh by the way my garden is 100feet long by around 22.5feet wide, and I also
> > have permission to use the bottom 30feet of the nextdoor neighbours garden!!
> >
> > Cheers.....
> >
> > M0DCM Dave
> >
> >

2433. Re: Looking for Ham Radio Magazine March 1968

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 17:02:21 UTC
From: "Ken Knox (N1JRO)" <knox_k@midmaine.com.invalid>
Message-ID: <jnl7tuc6cfbpnjvkf8dfjcs7njfme27kh8@4ax.com>
Source record: 131321
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Thu, 14 Nov 2002 07:23:39 -0600, Bob Liesenfeld
<robert.liesenfeld@neicoltech.org> wrote:

>
>
>canyon wrote:
>
>> Hi Guys,
>>
>> I am looking for an article in Ham Radio Magazine, March 1968.
>> The article is "Modifing the Yaesu FT-310 for 30 Meters"
>> I would be interested in the issue or a copy of the article.
>
> Canyon,
> I have the complete set of Ham Radio on CDs and do not see an
>article with this title in any issue. Also, I don't think we had 30
>meters back in 1968. Did you mean QST or perhaps 73 and a different
>year?
>

He made a typo...it is in the march 1986 issue.

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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2434. Re: Motorola automatic antenna tuners

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 17:48:57 UTC
From: Brian Grimm <bgrimm.remove@state.wy.us>
Message-ID: <3dd3e013$1_7@news.teranews.com>
Source record: 131322

Tom,

You might want to try posting your question in one of the forums at www.mobat.com.

Brian

"Tom Sharples" <tsharples@qorvus.com> wrote in message news:lGIx9.13105$ar4.109657@sccrnsc03...
> Hey folks, I have several of the Mot auto antenna tuners (for use with Micom
> XF), but no documentation. Can anyone out here give me the pinout of the
> screw-terminals (1 through 4) on the back of these units? One of them is +12
> VDC, one is N/C, but what are the other ones (#1 and #2) for? Any help would
> be appreciated, thanks!
>
> 73, Tom WA6HAS
>
>

2435. Re: Balun book?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 18:00:41 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <m2p7tu8qn0lvacmcl63krk1e13r09gov3n@4ax.com>
Source record: 131323

On 14 Nov 2002 14:34:57 GMT, Ken Knecht <kenk2@mindspring.com> wrote:

AFAIK, nobody has studied this issue more than Jerry Sevick, W2FMI.

I believe his book on Baluns and UnUns is up to the fourth edition and
it's available from the ARRL. I have the original book and it's a
gold mine of information.

>Xmas is coming! Can anyone suggest the name and author of a good
>in-print balun book so my sister can surprise me with it on Xmas
>morn?

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

2436. Superantenna MP-1 and Icom IC-746Pro

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 18:02:06 UTC
From: tcp277@yahoo.com
Message-ID: <c50a6464.0211141002.1c9b2b12@posting.google.com>
Source record: 131324

Hello.. I've got a question maybe some more knowledgeable hams can answer..

I've got an IC-746Pro connected to a Superantenna MP-1 that I just put up.. (I just had to move into an apartment, so unfortunately, that's my only solution at the moment..)

Tuning it to the best SWR is not a problem; between the sliding loading coil on the MP-1 and the built-in tuner on the IC-746, I'm able to get an SWR of < 1.5:1..

The problem, however, seems to be recieving.. My S-meter is always at 50%, and there's just noise all over the band, on every band.. Nothing but the absolute strongest signals make it through, and it's very noisy when they do.. I'm thinking maybe this is a grounding issue, perhaps??? Kinda a tough thing to remedy in an apartment if so.. Also, I have huge AC units on either side of my patio - so I'm sure that's not helping.. Is there anything I could do?

Also - a question on the counterpoises.. How exactly are those things to be laid out?? The instructions were very minimal.. I imagined they should be at 90 degrees from each other, perpendicular (there are 4 of them..) However I'm guessing if my SWR is under 1.5 i've got that laid out right and it's tuned right.. so that's what leaves me with the grounding issue on the noise..

Thanks in advance for any suggestions..

73's.. KC2DZE

2437. FA: Mini-UHF for Proflex cheap $8.00 for 15!!!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 18:22:16 UTC
From: US Patriot <nospam@tome.com>
Message-ID: <sRRA9.13221$hK4.1236853@bgtnsc05-news.ops.worldnet.att.net>
Source record: 131326
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

15-RF Industries mini-UHF connectors for proflex new in packaging. Great deal.
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=801841232&ssPageName=ADME:B:LC:US:1

2438. Re: 40m Dipole Improvements.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 18:39:29 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD3EDE1.253C678D@ieee.org>
Source record: 131327

nospam wrote:
> I thought a 1/4 wave on 40 m was 16.7 ft?

It is with a velocity factor of 0.5. Where do you find
a wire with that much insulation?
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2439. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 18:40:37 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD3EE25.EF0AF13B@ieee.org>
Source record: 131329

nospam wrote:
> I heard this station on about 8.186 MHz that continually
> transmitted numbers in Spanish. Always in groups of 5.

Why are numbers in Spanish different from numbers in English?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2440. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 18:41:36 UTC
From: Bill M <exray@no>
Message-ID: <ut7rco657n9d4a@corp.supernews.com>
Source record: 131328

nospam wrote:
>
> I heard this station on about 8.186 MHz that continually
> transmitted numbers in Spanish. Always in groups of 5.
>
> What is it?

Its a very antiquated, but relatively simple and secure system of
encoded messages. As in spies. Check Google for 'numbers stations' and
you'll be overwhelmed with information about this secret.
-BM

2441. Re: Superantenna MP-1 and Icom IC-746Pro

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 18:42:36 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD3EE9C.B9B6741F@ieee.org>
Source record: 131330

"C. Todd" wrote:
> The problem, however, seems to be recieving.. My S-meter is always at
> 50%, and there's just noise all over the band, on every band.. Nothing
> but the absolute strongest signals make it through, and it's very
> noisy when they do..

Sounds like a typical vertical installed at my QTH.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2442. Re: Multiband verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 18:51:21 UTC
From: RVMJ <RVMJ@Safety-&-Arming.Clara.co.uk>
Message-ID: <02s7tucsesos0qci86bsh29qhaot2jetc5@4ax.com>
Source record: 131331
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

Jamesv wrote:

>I am preparing to purchase a new multiband vertical for hf.
>
>Before I do so, I would like to make good comparisoins to help me make the
>correct choice.

Vertical antennas were discussed in the last few weeks on uk.r.a - so
I suggest a Google Advanced Search should turn up the thread(s), and
it will save contributors to those thread(s) having to type it all out
again.

HTH

--
from
RVMJ
Remove Safety-&-Arming before e-mailing

2443. Improving Cell Phone Reception

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 19:04:59 UTC
From: bananaman165@hotmail.com
Message-ID: <89761e12.0211141104.31c7314f@posting.google.com>
Source record: 131332

I was reading the archives here about cell phone antenna boosters and other such mysteries. Well, I can't comment on the devices sold to the world for somewhere between $0.50 to $29.95 depending on how rich you look to be...

But I CAN comment on an experiment that I just tried. I have a Motorola V60g 1900MHZ GSM cell phone. In my office at work, I either have "NO SERVICE" displayed, or at most 1 bar of signal on the digital meter (I realize this means very little, but bear with me a bit...)

I opened up the battery compartment, took out the battery, and inserted a paperclip, cut to about 2.5" so it would fit the compartment. I aligned the clip with the antenna stub. No actual connection was made to anything; I just dropped the clip into the battery compartment. I replaced the battery, closed the phone, and wooooooaaaaahhh: I have 2 bars of signal where I had "NO SERVICE" before, and 3 bars where there used to be 1.

I even made a phone call to a friend who said "you are breaking up a bit", but when I moved to the 3 bar area they said "oh, now you sound fine".

Sooooo.... Rather than spend even $0.50 (or the unconscionable $29.95!), try a paper clip first!

Regards,
Dave

PS: If you are unable to find paperclips in your area, email me off-group with your credit card number and I will ship you one for $29.95 plus $5.95 shipping and handling. If you act now, I'll throw in a second paper clip for free!

2444. Re: How to directly connect frequency counter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 19:09:21 UTC
From: k7itm@aol.com
Message-ID: <3200347.0211141109.41b6a3ea@posting.google.com>
Source record: 131333

Wes Stewart <n7ws@nowhere.com> wrote in message
news:<dn06tu0m1f5ilj3l4756rmr8rp1q0fpjbh@4ax.com>...
...
> All of this begs the question, why go to all of this trouble to use a
> frequency counter that is no more accurate that the digital readout on
> the radio?

Good question, Wes! Maybe the 5W QRP rig has no such readout (and the
trial with the other radio is just a test to see if it works
properly)?

Cheers,
Tom

2445. Re: 40m Dipole Improvements.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 19:11:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ut80r6k5vu55ac@corp.supernews.com>
Source record: 131338

nospam wrote:
> I thought a 1/4 wave on 40 m was 16.7 ft?

Well, let's see. A meter is a little over 3 feet, right?

Then 40 meters is more than 40 * 3 = 120 feet.

I'll leave it to you to divide this by four to find a quarter wavelength.

Roy Lewallen, W7EL

2446. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 19:17:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ut816qrntq8e78@corp.supernews.com>
Source record: 131339

How great was this bandwidth improvement?

Roy Lewallen, W7EL

Art Unwin KB9MZ wrote:
> Looking at some older notes of mine I ran across
> what I consider to be a better feeding mechanism
> for antennas.It never gained interest even tho
> nowadays modeling is widespread. Can anybody
> point out why it is not in general use for technical reasons.
> Looking to broaden the bandwidth of antennas I fed a unsevered
> dipole (I like strong centers of antennas) with a small SEVERED
> dipole which had a 2 inch gap at the center and some distance
> beyond the original dipole point of feed if a delta feed was
> used direct to the original dipole.
> Feeding just the short 'severed' dipole without it being near
> another radiator would have been a disaster. But when coupled
> closely to another radiator the bandwidth of the larger dipole
> broadened considerably. Apparently the current flow into the
> capacitive coupled feeder dipole chose its own point of flow to the
> main dipole for minimum resistance, somewhat similar to what
> one would obtain by adjusting the feed point of a directly
> fed antenna. This method of feed does not give the same frequency
> flexability obtained by varying lumped constants, but for those
> with monobanders it resolves the need for special 'cutting'
> arrangements for DX band portions. I called this 'Capacitive Coupling'
> which may be a misnomer that frightened people away from this concept.
> I would apreciate any technical comments. No, I have not mentioned
> 'gain' and yes, I did write it up in a patent many years ago but it
> never gained professional review or a write up in a book.
> I would prefer no spamming this time around if possible against
> introducing a new idea.
> Regards
> Art KB9MZ......XG
> Regards
> Art

2447. Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 19:18:34 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211141118.72fca4d7@posting.google.com>
Source record: 131334

Looking at some older notes of mine I ran across
what I consider to be a better feeding mechanism
for antennas.It never gained interest even tho
nowadays modeling is widespread. Can anybody
point out why it is not in general use for technical reasons.
Looking to broaden the bandwidth of antennas I fed a unsevered
dipole (I like strong centers of antennas) with a small SEVERED
dipole which had a 2 inch gap at the center and some distance
beyond the original dipole point of feed if a delta feed was
used direct to the original dipole.
Feeding just the short 'severed' dipole without it being near
another radiator would have been a disaster. But when coupled
closely to another radiator the bandwidth of the larger dipole
broadened considerably. Apparently the current flow into the
capacitive coupled feeder dipole chose its own point of flow to the
main dipole for minimum resistance, somewhat similar to what
one would obtain by adjusting the feed point of a directly
fed antenna. This method of feed does not give the same frequency
flexability obtained by varying lumped constants, but for those
with monobanders it resolves the need for special 'cutting'
arrangements for DX band portions. I called this 'Capacitive Coupling'
which may be a misnomer that frightened people away from this concept.
I would apreciate any technical comments. No, I have not mentioned
'gain' and yes, I did write it up in a patent many years ago but it
never gained professional review or a write up in a book.
I would prefer no spamming this time around if possible against
introducing a new idea.
Regards
Art KB9MZ......XG
Regards
Art

2448. Bias-T design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 19:26:01 UTC
From: Dimitris Mylonopoulos <mylond@otenet.gr>
Message-ID: <ar0tav$3ma$1@usenet.otenet.gr>
Source record: 131335

I own an active antenna (dressler ARA-60) but without the internal Bias-T
part, can somebody help me designing that piece ?
thanks
Dimitris

2449. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 19:33:14 UTC
From: Dan/W4NTI <w4nti@NOSPAMmindspring.com>
Message-ID: <ar0tpcsif1@slb4.atl.mindspring.net>
Source record: 131336

Isnt this what Mosley did on their Classic TA-33 and TA-36 design of years ago? A wire was inside the driven element of the Triband element and that is where the coax was hooked in the center of same. Its been a while but sounds about the same to me.

Dan/W4NTI

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message news:85ed38d.0211141118.72fca4d7@posting.google.com...
> Looking at some older notes of mine I ran across
> what I consider to be a better feeding mechanism
> for antennas.It never gained interest even tho
> nowadays modeling is widespread. Can anybody
> point out why it is not in general use for technical reasons.
> Looking to broaden the bandwidth of antennas I fed a unsevered
> dipole (I like strong centers of antennas) with a small SEVERED
> dipole which had a 2 inch gap at the center and some distance
> beyond the original dipole point of feed if a delta feed was
> used direct to the original dipole.
> Feeding just the short 'severed' dipole without it being near
> another radiator would have been a disaster. But when coupled
> closely to another radiator the bandwidth of the larger dipole
> broadened considerably. Apparently the current flow into the
> capacitive coupled feeder dipole chose its own point of flow to the
> main dipole for minimum resistance, somewhat similar to what
> one would obtain by adjusting the feed point of a directly
> fed antenna. This method of feed does not give the same frequency
> flexability obtained by varying lumped constants, but for those
> with monobanders it resolves the need for special 'cutting'
> arrangements for DX band portions. I called this 'Capacitive Coupling'
> which may be a misnomer that frightened people away from this concept.
> I would apreciate any technical comments. No, I have not mentioned
> 'gain' and yes, I did write it up in a patent many years ago but it
> never gained professional review or a write up in a book.
> I would prefer no spamming this time around if possible against
> introducing a new idea.
> Regards
> Art KB9MZ......XG
> Regards
> Art

2450. Re: Balun book?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 19:57:11 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211141157.284f8087@posting.google.com>
Source record: 131337

Ken Knecht <kenk2@mindspring.com> wrote in message
news:<Xns92C64D20CAAEkenk2mindspringcom@198.99.146.10>...
> Xmas is coming! Can anyone suggest the name and author of a good
> in-print balun book so my sister can surprise me with it on Xmas
> morn?
>
> TIA
>
> Ken

There is a antenna engineering book by Jasik on E Bay at the
present time at a very good price.
Why not mention that to your sister ? You have to be quick tho.
Art

2451. Hygain Gin Pole

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 21:00:29 UTC
From: Rick N2AMG <rellison@twcny.rr.com>
Message-ID: <N9UA9.118620$c51.35544804@twister.nyroc.rr.com>
Source record: 131340

I am looking for pictures of the Hygain Gin-pole used to raise and lower
their towers. Or if someone has a drawing of one that would be helpful also.

Thanks and 73's
Rick N2AMG
rellison@twcny.rr.com

2452. Hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 21:11:37 UTC
From: jwodell@provide.net
Message-ID: <3dd4112a.1625393@news.provide.net>
Source record: 131341

Anyone know of a good source for stainless steel antenna hardware?
Here in the Detroit area, things are bleak. What I need is a 3" U
bolt, to replace those awful things that come with cushcraft

73 jerry w8gnd
(better reply to jwodell@provide.net)

2453. Re: Wind Load of TR-2

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 21:32:02 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <7CCdnVDLq8pliEmgXTWcrg@comcast.com>
Source record: 131342

Chuck,

I used a TR22 with a "Junior" tribander for several years. A very strong wind might turn it slightly. Just be sure that the antenna is resting right on the top of the rotor. It won't take any bending moments from a mast of any length. Even raising the antenna 6 - 8 inces will double the load on the bearings. I did have a small VHF beam a couple of feet above the tribander.

Tam/WB2TT
"Chuck/KE4ETH" <chuck_hawks@hotmailnospamorama.com> wrote in message news:pLXz9.13348$IE2.12190@news.bellsouth.net...
> I know the TR-2 is a light duty (TV antenna) rotor, but how many square feet
> (wind load) of antenna should it handle.
>
> Tnx
>
> --
> 73,
> Chuck
> KE4ETH
> Remove the obvious from Email.
>
>
>
>

2454. Re: Multiband verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 21:57:46 UTC
From: G4IRN <mycall@qsl.net>
Message-ID: <VVVA9.5302$Mi4.91053@newsfep3-gui.server.ntli.net>
Source record: 131348
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

I recommend Butternut verticals. With my ground mounted HF2V, in the last few weeks I have worked ZL7, JT1, VK6, 3X, 9L all on 80mtrs from my postage stamp garden. See www.bencher.com and check out the articles. www.eham.net for product reviews.

"Jamesv" <jamesv@premierdisco.co.uk> wrote in message news:3dd3960b_3@news1.vip.uk.com...
> I am preparing to purchase a new multiband vertical for hf.
>
> Before I do so, I would like to make good comparisoins to help me make the
> correct choice.
>
> Does anyone have any idea where I can get technical and operational antenna
> comparisons on the net? Also any good, well priced supplier contacts would
> be appreciated.
>
> Thanks
>
> JV
>
>

2455. FT 817 Price Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 22:01:49 UTC
From: KC0EH <okiemansc@yahoo.com>
Message-ID: <h3VA9.678$pi7.92514@newsread2.prod.itd.earthlink.net>
Source record: 131343
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Thinking of Christmas and I wonder who has the best price on a new Yaesu
FT-817.
Please reply direct.
Thanks,
...Charlie...KC0EH...

2456. Re: Hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 22:05:37 UTC
From: arrow146@aol.com
Message-ID: <20021114170537.22462.00000502@mb-cp.aol.com>
Source record: 131344

<< Subject: Hardware
From: jwodell@provide.net (Jerry W. O'Dell)
Date: Thu, Nov 14, 2002 1:11 PM
Message-id: <3dd4112a.1625393@news.provide.net>

Anyone know of a good source for stainless steel antenna hardware?
Here in the Detroit area, things are bleak. What I need is a 3" U
bolt, to replace those awful things that come with cushcraft

73 jerry w8gnd
(better reply to jwodell@provide.net) >>

<A HREF="https://www.mscdirect.com/members.process"> MSC Industrial Supply
Co.</A> has Stainless U-Bolts but no Saddles. You won't like the price ether.

I use regular Stainless Bolts with Aluminum Saddles.
(Made by SAM3)

73 Al Lowe N0IMW
<A HREF="http://ArrowAntennas.com">ArrowAntenna.com</A>

2457. Re: Hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 22:13:33 UTC
From: Bill M <exray@no>
Message-ID: <ut87q56212nleb@corp.supernews.com>
Source record: 131345

"Jerry W. O'Dell" wrote:
>
> Anyone know of a good source for stainless steel antenna hardware?
> Here in the Detroit area, things are bleak. What I need is a 3" U
> bolt, to replace those awful things that come with cushcraft
>
> 73 jerry w8gnd
> (better reply to jwodell@provide.net)

Do you have any marine hardware places around there? They are often a
good source.
-Bill M

2458. Re: How to directly connect frequency counter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 22:38:56 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <0d98tucb82hp2q8557fr42nom4f47ujmu3@4ax.com>
Source record: 131347

On 14 Nov 2002 11:09:21 -0800, k7itm@aol.com (Tom Bruhns) wrote:

|Wes Stewart <n7ws@nowhere.com> wrote in message
news:<dn06tu0m1f5ilj3l4756rmr8rp1q0fpjbh@4ax.com>...
|...
|> All of this begs the question, why go to all of this trouble to use a
|> frequency counter that is no more accurate that the digital readout on
|> the radio?
|
|Good question, Wes! Maybe the 5W QRP rig has no such readout (and the
|trial with the other radio is just a test to see if it works
|properly)?

I dunno... he said somewhere along the line, "I had hoped that its
antenna would pick up stray radiation when I TX from my FT990."

I haven't really followed the thread so I don't recall anything about
a QRP rig.

2459. Re: Improving Cell Phone Reception

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 22:42:45 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD426E5.6664CBA6@cwis.net>
Source record: 131346

bananaman,
I just gotta say, you're all heart, man...
'Doc

2460. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 23:06:37 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DD42C7D.2777B863@shaw.ca>
Source record: 131349

nospam wrote:
>
> I heard this station on about 8.186 MHz that continually
> transmitted numbers in Spanish. Always in groups of 5.
>
> What is it?

Very likely a weather report.
Most text encryption systems used alphabetical
characters.
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

2461. X-Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 23:20:53 UTC
From: tayl0rr@yahoo.com
Message-ID: <6DADF162BD739CFD.8ADD9A58348BF815.FDE9D4189923DEB5@lp.airnews.net>
Source record: 131360

I'm looking at building an X-beam antenna for 40 meter. It seems to be the smallest reasonably simple horizontal beam antenna? However I don't see any information about it in the ARRL Antenna Book 19th Addition. Is there a reason that it wouldn't be included?

Thanks
Robert

2462. Autek or MFJ ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 23:30:55 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <ut8chi7ftimqd0@corp.supernews.com>
Source record: 131350

Considering price, ease of use, etc what are the pros and cons of the RF1
versus the MFJ 259 from those who have used both?
tnx
hank wd5jfr

2463. Re: 40m Dipole Improvements.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 23:45:49 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <ut8dde95il8g1f@corp.supernews.com>
Source record: 131355

Not in coax, see: Velocity Factor...

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"nospam" <xxxmmxxx@xxxspiritone.com> wrote in message
news:3DD3D104.50037F67@xxxspiritone.com...
> I thought a 1/4 wave on 40 m was 16.7 ft?
>
>
>
> Roy Lewallen wrote:
>
> > Your idea will give you a dipole-like pattern (but filled in a little),
> > with maxima to the NE-SW or NW-SE depending on the relative phasing
> > between the dipoles. I also don't see how you'll fit these on your lot.
> > Here are a few suggestions:
> >
> > 1. Put two dipoles at right angles like you suggest, but feed one
> > directly, and the other through a quarter electrical wavelength (23'2"
> > at 7.0 MHz for solid dielectric coax) 50 or 75 ohm coaxial cable. This
> > will provide roughly a 90 degree phase shift between the dipoles and
> > result in a more nearly circular pattern. You could also run a separate
> > feedline from each to your shack and switch between them. But again, I
> > don't see how this will fit.
> >
> > 2. Put up an inverted vee. This will give you improved performance off
> > the ends, compared to a dipole. But you'll have to get it higher than a
> > dipole to get comparable low angle radiation.
> >
> > 3. Use a vertical, with at least 6 - 8 ground radials. My experience is
> > that this is pretty comparable to a dipole at 40 or so feet on 40
> > meters, but it depends heavily on the quality of the nearby ground.
> >
> > 4. Put up two verticals spaced a quarter wavelength apart, each with
> > half a dozen or so ground radials. If you feed them with equal currents
> > and 90 degree phasing(*), you'll get a good front/back ratio, which will
> > help you reduce interference. You can switch them in either of two
> > directions with this pattern. You can also feed them in phase to get an
> > approximately omnidirectional pattern with better efficiency than you'd

> > get with one. Feeding them out of phase will give you good nulls off the
> > side, but the efficiency is likely to be low, so you might want to
> > restrict this phasing to listening only.
> >
> > 5. Put up two verticals spaced a half wavelength apart, and feed them
> > either in phase for a broadside pattern or out of phase for an end fire
> > pattern. With two elements, these phasings are easy to achieve. For the
> > in-phase pattern, just feed both with equal lengths of cable. To change
> > to the out-of-phase pattern, just switch a half electrical wavelength of
> > cable in series with one of the lines. Both patterns have good nulls at
> > right angles, which can help you with interference.
> >
> > Roy Lewallen, W7EL
> >
> > (*) Unfortunately, getting this current ratio is more difficult with
> > parallel verticals than with the crossed dipoles. To learn how to do it,
> > see Chapter 8 of the _ARRL Antenna Book_ and/or "The Simplest Phased
> > Array Feed System -- That Works" in the _ARRL Antenna Compendium_, Vol.
2.
> >
> > M0DCM Dave wrote:
> > > Hi There,
> > >
> > > I wonder if anyone can help?
> > >
> > > I'm trying to think of ways to improve on my 40m half wave dipole and
have a
> > > couple of ideas.
> > >
> > > One idea is to put 2 40m half wave's together on the same balun so
they fire
> > > at the same time, but one dipole would go East to West and the other
would
> > > go North to South.
> > >
> > > I wonder if anyone has ever tried this, if so how good is it?
> > >
> > > So if anyone else has any more idea's for a 40m antenna let me know I
would
> > > be interested.
> > >
> > > Oh by the way my garden is 100feet long by around 22.5feet wide, and I
also
> > > have permission to use the bottom 30feet of the nextdoor neighbours
garden!!
> > >
> > > Cheers.....
> > >
> > > M0DCM Dave
> > >

> > >
>

2464. Re: Multiband verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-14 23:50:47 UTC
From: Brian <g0ukb@REMOVETHIS.ivarc.org.uk>
Message-ID: <MPG.183e4732c1a249779896f3@news.dsl.pipex.com>
Source record: 131351
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

James

without wishing to sound negative - do you really want to shell out hundreds of quid for a multiband vertical?

I have a Cushcraft R7 - super antenna, well constructed, not too unsightly and works well on all bands 40-10m. Cost about 350 quid if I'd have bought it new. I have a 102' doublet that consistently gives +2 S-points better on all bands (except 17Mhz) for almost all contacts. Cost about 20 quid if I'd have bought the wire new.

If you have the space for a vertical plus radials you can get a 44' doublet in and outperform the vertical in most directions on 40-10m at no cost. A 10m fishing pole and some ingenious wire work will give you great performance for well under 100 quid.

I'd recommend a visit to L B Cebik's site (www.cebik.com) and a purchase of John Heys Wire Antennas book book before splashing out.

Brian G0UKB

2465. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 00:05:49 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3DD43A4D.EE2B3FFA@attbi.com>
Source record: 131352

YES !! You are an arrogant 'Know it All'. A Gentleman's approach can
make the same point and not be offensive.

Deacon Dave, W1MCE
Program Chief Engineer, retired

John Passaneau wrote:
>
> Well Pete:
>
> I would have told you the same to your face, then the I would have answered
> your question. You may notice I work for a university. One of the main
> points of higher education is to show you how to do your own research. If
> you had done some research, you would then be able to ask a question that
> has some usefulness. As, does it work as they claim, is there anyway to make
> it work better, or will it do what I want it to do. Above all you would have
> had the pleasure of discovering something for your self. The things that a
> person remembers best are those they worked for on their own. If you do it
> often enough you too can be a "know it all" like I am.
>
> 73
>
> --
> John Passaneau, W3JXP
> Physics Dept. Electronics Shop
> Penn State University
> 104 Davey Lab, University Park , Pa. 16802
> 814.863.4297, jxp16@psu.edu
>
> "Pete Holden" <peholden@attbi.com> wrote in message
> news:dPzA9.19916$ME6.10525@rwcrnsc53...
> > Virtually every question on this newsgroup could be answered by
> independent
> > study and research, John. I thought, though, that the point of the group
> > was to provide a forum for some friendly chat and exchange of ideas.
> >
> > You and Bessler add nothing to the hobby, serve only to diminish
> yourselves,
> > and if standing eye to eye with me, would likely wet your pants before
> > managing to be so rude. Unfortunately, this format sometimes brings out
> the
> > worst in people.
> >
> > 73s Pete
> >stuff sniped

2466. Re: Superantenna MP-1 and Icom IC-746Pro

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 00:08:14 UTC
From: tcp277@yahoo.com
Message-ID: <c50a6464.0211141608.7f1f0dd9@posting.google.com>
Source record: 131353

OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DD3EE9C.B9B6741F@ieee.org>...
> "C. Todd" wrote:
> > The problem, however, seems to be recieving.. My S-meter is always at
> > 50%, and there's just noise all over the band, on every band.. Nothing
> > but the absolute strongest signals make it through, and it's very
> > noisy when they do..
>
> Sounds like a typical vertical installed at my QTH.

Hmm. Not encouraging.. Any advice as to perhaps make this work a
little better? Longer radials, perhaps? Also, would things be as bad
on the other end of things? Sorry for the naivete.. Just trying to
learn as I go..

-Chris/KC2DZE.. 73's

2467. electrostatically shielded antenna NEC model?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 00:13:17 UTC
From: "David A. Howard" <dahoward@pacbell.net>
Message-ID: <x_WA9.519$ql2.72908113@newssvr21.news.prodigy.com>
Source record: 131356

While I've been quite successful in the actual construction of 1-wavelength shielded loops, I've discovered I'm clueless as to how to model them using EZNEC/4...

I've made them out of RG-405 rigid coax, and printed micro-stripline vesions on FR4, and 3-mil polyimide, and polyester flexible laminates... I'd like to try the same technique or possibly stripline on/in high dielectric ceramic materials (dK >20 <100). I've already tried a physically scaled down microstrip version on Arlon 1000 (dK10), but the results weren't what I expected. Before I fork over the cost of printing on multilayer LTC Ceramics, I thought it might be a good idea to model the beast to get a better understanding of what is going on...

Unfortunately, I haven't been able to construct a model in NEC that is close to rigid coax, or low dK microstrip antennas I've already built/tested (physical size, gain, impedance, etc...). I realize their are dielectric effects that I wouldn't be able to model in NEC, but at this point I would be very happy to just get an air dielectric equivalent shielded loop in NEC.

Any ideas/examples out there?

David A. Howard
dahoward@pacbell.net

2468. Re: 2M antenna for marine band? RE:VSWR Test

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 00:21:44 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3DD43E06.3414F169@attbi.com>
Source record: 131354

>
> Everyone seems to think that the SWR should be higher. Is there a
> simple test to see if the meter is working? Like switching the leads?
> Then I should be reading reflected power (which should show very low)
> and SWR should be very high.
>
> Ken KC2JDY

No! The VSWR you are reading is probably correct IF [I say again IF] line losses are ignored. The VSWR at the antenna should be much higher BUT line losses 'fake your meter out'. The coax losses are [may be] attenuating the reflected portion of the signal.

A simple example makes the point of losses in coax: Assume 6 dB of line loss and 10 watts output. Then 2.5 watts gets to the antenna. Assume a total mismatch at the antenna so that all the power gets reflected. Then, only 0.625 watts gets back to the VSWR Meter. VSWR would read about 1.4 to 1 where it is actuality infinity to 1 at the load!

If you have a dummy load that is reasonable at 150 MHz then a simple test can be run to check coax losses. Connect the far end of the coax to the dummy load and measure the power into the coax [with your VSWR meter]. Do not change VSWR meter sensitivity settings. Now move the VSWR meter to just before the dummy load and measure how much power is getting there. Your line loss is calculated by:

Loss = 10 * Log (power at load/power into line) in dB.

Deacon Dave, W1MCE

Deacon Dave, W1MCE

2469. Re: Wind Load of TR-2

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 00:25:48 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailnospamorama.com>
Message-ID: <wXXA9.16722$wO4.14867@news.bellsouth.net>
Source record: 131359

Thank you. That's what I needed to know.

--
73,
Chuck
KE4ETH
Remove the obvious from Email.

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:7CCdnVDLq8pliEmgXTWcrg@comcast.com...
> Chuck,
>
> I used a TR22 with a "Junior" tribander for several years. A very strong
> wind might turn it slightly. Just be sure that the antenna is resting
right
> on the top of the rotor. It won't take any bending moments from a mast of
> any length. Even raising the antenna 6 - 8 inces will double the load on
the
> bearings. I did have a small VHF beam a couple of feet above the
tribander.
>
> Tam/WB2TT
> "Chuck/KE4ETH" <chuck_hawks@hotmailnospamorama.com> wrote in message
> news:pLXz9.13348$IE2.12190@news.bellsouth.net...
> > I know the TR-2 is a light duty (TV antenna) rotor, but how many square
> feet
> > (wind load) of antenna should it handle.
> >
> > Tnx
> >
> > --
> > 73,
> > Chuck
> > KE4ETH
> > Remove the obvious from Email.
> >
> >
> >
> >
>
>

2470. Re: Autek or MFJ ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 01:02:13 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DD4478F.798A7EC8@shaw.ca>
Source record: 131357

Henry Kolesnik wrote:
>
> Considering price, ease of use, etc what are the pros and cons of the RF1
> versus the MFJ 259 from those who have used both?
> tnx
> hank wd5jfr

I have both. The Autek has been a disappointment since
day one. I love the 259B! Please don't ask for
explanations -- too complex and too much to explain.
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

2471. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 01:17:13 UTC
From: Bill M <exray@no>
Message-ID: <ut8iig1hfldd2c@corp.supernews.com>
Source record: 131358

Irv Finkleman wrote:
>
> nospam wrote:
> >
> > I heard this station on about 8.186 MHz that continually
> > transmitted numbers in Spanish. Always in groups of 5.
> >
> > What is it?
>
> Very likely a weather report.
> Most text encryption systems used alphabetical
> characters.

I don't want to drift too far OT for this group, but what you suggest isn't necessarily so. In these days of continuing espionage, number groups via SW have proven to be one of the more secure methods of encryption. There have been two incidents in recent years involving Cuban agents that reportedly used this same system coupled with transcription keys called into them via a pay phone. In both cases the mix apparently went into a computer for actual decoding.
One of the benefits of using numbers for encoding is to minimize the possibility of errors, simply because there's only 10 digits as opposed to 26. One single error may hopelessly garble the entire transmission.
Anyway, a good read on this whole bizness is "Between Silk and Cyanide" written by Leo Marks. Its a lively tongue-in-cheek read by the gentleman who, in his early 20s, revolutionized and perfected this type of coding for the Brits at Bletchly Park during World War II.

-Bill M (once a cynic on the subject also)

2472. Modes for quarter wave patch!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 01:35:41 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0211141735.4ae499a3@posting.google.com>
Source record: 131361

Hi,
I like to know how will be the electric field distribution for a quarter wave patch(shorted at one end) for the dominant mode, first higher order mode and next higher order mode. Kindly help. I would really appreciate if i am given some links or papers where i can look for it.

Thanks in advance.

2473. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 01:59:48 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DD4550E.39B69479@shaw.ca>
Source record: 131362

Bill M wrote:
>
> Irv Finkleman wrote:
> >
> > nospam wrote:
> > >
> > > I heard this station on about 8.186 MHz that continually
> > > transmitted numbers in Spanish. Always in groups of 5.
> > >
> > > What is it?
> >
> > Very likely a weather report.
> > Most text encryption systems used alphabetical
> > characters.
>
> I don't want to drift too far OT for this group, but what you suggest
> isn't necessarily so. In these days of continuing espionage, number
> groups via SW have proven to be one of the more secure methods of
> encryption. There have been two incidents in recent years involving
> Cuban agents that reportedly used this same system coupled with
> transcription keys called into them via a pay phone. In both cases the
> mix apparently went into a computer for actual decoding.
> One of the benefits of using numbers for encoding is to minimize the
> possibility of errors, simply because there's only 10 digits as opposed
> to 26. One single error may hopelessly garble the entire transmission.
> Anyway, a good read on this whole bizness is "Between Silk and Cyanide"
> written by Leo Marks. Its a lively tongue-in-cheek read by the
> gentleman who, in his early 20s, revolutionized and perfected this type
> of coding for the Brits at Bletchly Park during World War II.
>
> -Bill M (once a cynic on the subject also)

I won't dispute that the numeric codes aren't used, and for
the
reason you specified. The 5 number groups for weather have
been
used internationally for years, and I would suspect that a
continuing
broadcast would not likely be clandestine. Also, this
transmission
was in the middle of an international band (although
clandestine
radios can operate anywhere), and lengthy. It puzzles me
that there was

an indication that the station was Spanish -- more
information
might be needed to make a better guess. The Engigma and our
later
counterparts used the five letter groups. I would suspect
that today, with
the advent of computers and satellites there are much better
means
of communications between controllers and agents -- high
speed
data and burst transmissions. I spent many years as a naval
radio
operator, and a number of years as a naval officer
conducting elint
and comint operations -- my offering with regard to nospams
query was
just a 'hunch'. Its really anyone's guess. The
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

2474. Re: Superantenna MP-1 and Icom IC-746Pro

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 02:04:54 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <oFPUPfZ25sWHUC0uZEtKrxlflVst@4ax.com>
Source record: 131363

tcp277@yahoo.com (C. Todd) wrote:

>OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DD3EE9C.B9B6741F@ieee.org>...
>> "C. Todd" wrote:
>> > The problem, however, seems to be recieving.. My S-meter is always at
>> > 50%, and there's just noise all over the band, on every band.. Nothing
>> > but the absolute strongest signals make it through, and it's very
>> > noisy when they do..
>>
>> Sounds like a typical vertical installed at my QTH.
>
>Hmm. Not encouraging.. Any advice as to perhaps make this work a
>little better? Longer radials, perhaps? Also, would things be as bad
>on the other end of things? Sorry for the naivete.. Just trying to
>learn as I go..
>
>-Chris/KC2DZE.. 73's

Just to make sure it's not the current antenna that's screwing things up, you might connect an odd length of wire to the center connector of your your rig's coax plug (for receiving only), and move the setup around the apartment, to see if that changes your noise problem. Try the rig on different AC plugs. You should be receiving something, other than the loudest signals -- unless you have a really serious noise problem.

(You might also make sure your RF gain isn't turned down too low; that could give you a lot of hiss, with only the loudest signals getting through.)

Bob
k5qwg

2475. Re: Autek or MFJ ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 02:14:15 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD45877.260110D3@cwis.net>
Source record: 131364

Henry,
The biggest difference between the two is how information
is presented to you. The MFJ is more specific in that it gives
you definit 'numbers'. The Autek gives a more generalized
presentation (a response curve) and you have to interpolate
from that. So it really just depends on how you want to be
given the data. Both work equally well.
'Doc

2476. Re: Autek or MFJ ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 02:17:18 UTC
From: k9sqg@aol.com
Message-ID: <20021114211718.04270.00005124@mb-mo.aol.com>
Source record: 131365

Hank,

I sold the two MFJ analyzers I had and got the Autek. Haven't regretted the decision in 4 years. But what is good for one ham isn't necessarily good for another.

73s,

Evan

2477. Re: How to buy K6STI's YO (Yagi Optimizer) program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 02:40:12 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3dd462f2_3@news1.prserv.net>
Source record: 131366

I had an exchange with him by e-mail concerning TA about a year ago, before I inadvertently dumped my OE files, so I think he still maintains an email address.

--
Crazy George
Remove NO and SPAM from return address
"Roy Lewallen" <w7el@eznec.com> wrote in message news:ut360gbr6h8td8@corp.supernews.com...
> You can contact Brian at
>
> Brian Beezley
> 3532 Linda Vista Dr.
> San Marcos, CA 92069
>
> Roy Lewallen, W7EL
>
> Duncan Clark wrote:
> > Hi Folks,
> >
> > Can anyone point me to where I can buy K6STI's YO (Yagi Optimizer) program.
> >
> > The e-mail address I found on the web has bounced, I can't find any web
> > site for him with Google and there is no e-mail address on QRZ.com.
> >
> > Many thanks
> >
> > Duncan
> > G4ELJ
>

2478. Re: Water pipe ground?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 02:44:10 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <_bZA9.2813$vZ6.2800150@newshog.newsread.com>
Source record: 131367

"Sylvan Butler" <Znospam+noZs_0211@hpb13799Z.Zboi.hpZ.com.invalid> wrote in
message
news:slrnat37l0.t7t.Znospam+noZs_0211@hpb13799Z.Zboi.hpZ.com.invalid...
> On Tue, 12 Nov 2002 17:46:09 GMT, Roger Halstead <rdhalste@tm.net> wrote:
> > He's gonna have to be affuly picky. the metal portion is *only* the
meter
> > and shutoff valve...bout 2 feet long.
>
> No metal pipe inside the house? That is what has to be connected to
> the electrical system grounding conductor.

The only metal in the entire water system is the shutoff valve and the
little turbine for the water meter. (and some faucets)

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S/N CD-2)

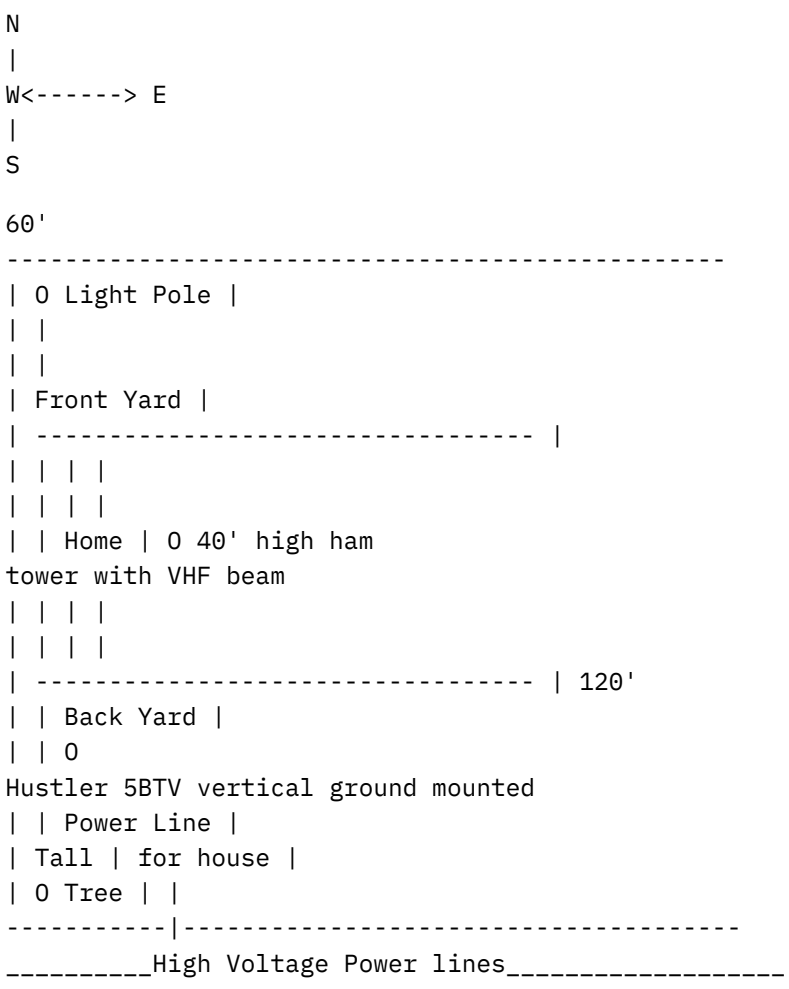
>
> sdb
> --
> | Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
> | Watch out for my e-mail address. Thank UCE. >>>> change ^ to @ <<<< |
> They that can give up essential liberty to obtain a little temporary
> safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
> Stop Senator Fritz Hollings-S2048, Palladium, and TCPA, NOW!
> http://www.freedom-to-tinker.com/archives/cat_fritzs_hit_list.html
> Or else like Fritz, fight piracy -- regulate potty chairs!

2479. Need most efficient 160 m antenna design for small lot

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 03:05:06 UTC
From: Andy Blackburn <andyblackburn3@comcast.net>
Message-ID: <qS-dncVwO9ir-UmgXTWcpw@comcast.com>
Source record: 131368

My single story home is on a lot 120' x 60'. I live on the east coast
and would like to work at least the states and some DX.
What would be the best design antenna to use on 160m
with my property laid out as shown below. Any ideas or a link to a webpage
with drawings or design would be appreciated. No unsightly
antennas can be in the front yard...only a wire maybe to the light pole.
I also prefer not to use a tuner except to expand my bandwith.
Any help would be greatly appreciated.

73,
Andy WD4FY



2480. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 03:26:11 UTC
From: lc <larryc@northwest.com>
Message-ID: <3DD46953.BA9F0AFD@northwest.com>
Source record: 131369

Interesting comments about displacement currents. Can you elaborate?

larryc, n3ccw
====
Richard Harrison wrote:

> Bill M wrote:
> "Below that set of radials, say 10 feet below, another set of 3-4
> radials. Any advantage here by having that second set?"
>
> Some, but that`s not the best use of radials.
>
> Purpose of elevated radials is capture of the essential displacement
> current between the vertical radiator and its ground return to the
> radio. Any of this current returning through the earth is likely to
> produce loss. Elevated radials tend to hide the earth from this
> displacement current. So, the additional radials would work better up
> close to the radiator, more capacitance between radiator and radials,
> less capacitance between radiator and the earth. Also, the placement
> should be equally interspersed between the existing radials so that
> balance is maintained to minimize radiation from the radials and so that
> shielding of the earth from displacement current is more complete. More
> radials almost never degrade an antenna and often help, especially at
> low antenna elevations.
>
> Best regards, Richard Harrison, KB5WZI

--
Welcome to Oregon - "The Food Stamp State"

2481. Re: Bias-T design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 03:32:15 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-CA5D59.19323414112002@newssvr21-ext.news.prodigy.com>
Source record: 131370

In article <ar0tav$3ma$1@usenet.otenet.gr>,
"Dimitris Mylonopoulos" <mylond@otenet.gr> wrote:

> I own an active antenna (dressler ARA-60) but without the internal Bias-T
> part, can somebody help me designing that piece ?
> thanks
> Dimitris
>
The "coupler box" is called a bias-T. It has three ports:

The D.C. bias port. This is the connection to the power supply.
Inside the coupler box there is an appropriate sized inductor to the
other two RF ports. RF port #1. This is the input port. The inductor
makes the connection from the D.C. port to this port. RF port #2. This
is the output port. A capacitor of appropriate size connects it to RF
port #1.

The inductor stops the RF from going to the power supply but allows the
D.C. to reach the input port and on to the amplifier to power it. The
capacitor stops the D.C. from reaching the radio.

The size of the capacitor and inductor are calculated at the lowest
frequency of operation. You want the reactance of the coil to be > 10
time the impedance of the line it is inserted in and the capacitor to be
a small fraction of the same. The coil needs to carry the current
necessary to power the amplifier without saturating.

The same capacitor and coil will be used in the amplifier in the same
way for the same reasons.

--
Telamon

2482. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 03:46:23 UTC
From: k3bu@aol.com
Message-ID: <20021114224623.24880.00005450@mb-dh.aol.com>
Source record: 131371

>The 5 number groups for weather have been
>used internationally for years, and I would suspect that a
>continuing broadcast would not likely be clandestine. Also, this
>transmission was in the middle of an international band (although
>clandestine radios can operate anywhere), and lengthy. It puzzles me
>that there was an indication that the station was Spanish -- more
>information might be needed to make a better guess.

>Old Fart/Ham Radio VE6BP

5 letter groups were widely used by Soviet block clandestine communications. To decode you needed to have the same book as the encoder, number gave reference to page, line and word in the book. They used target language for particular country (like Cuba in Spanish).

For moron spies they used phone, for advanced CW :-)

Yuri, OF VE1BY, VE3BMV, oK3BU

2483. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 03:51:06 UTC
From: k3bu@aol.com
Message-ID: <20021114225106.24880.00005451@mb-dh.aol.com>
Source record: 131372

>5 letter groups

ooops,
I meant:
5 number groups

This was also standard way of teaching morse code, code was always send in 5 character groups.

Yuri BUm

2484. Re: X-Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 04:35:03 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD47977.53FF81EC@ieee.org>
Source record: 131373

Rob wrote:
> I'm looking at building an X-beam antenna for 40 meter. It seems to
> be the smallest reasonably simple horizontal beam antenna? However I
> don't see any information about it in the ARRL Antenna Book 19th
> Addition. Is there a reason that it wouldn't be included?

40m X-beam information is in my 1993 ARRL Handbook.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2485. Re: Superantenna MP-1 and Icom IC-746Pro

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 04:38:45 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD47A55.AEF56099@ieee.org>
Source record: 131374

"C. Todd" wrote:
>
> OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DD3EE9C.B9B6741F@ieee.org>...
> > "C. Todd" wrote:
> > > The problem, however, seems to be recieving.. My S-meter is always at
> > > 50%, and there's just noise all over the band, on every band.. Nothing
> > > but the absolute strongest signals make it through, and it's very
> > > noisy when they do..
> >
> > Sounds like a typical vertical installed at my QTH.
>
> Hmm. Not encouraging.. Any advice as to perhaps make this work a
> little better?

How about a horizontal dipole? :-) At my QTH, vertical noise is 2 S-units
higher than horizontal noise rendering a vertical virtually useless for me.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2486. Re: Autek or MFJ ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 04:40:57 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <aPWdnUuJ3avm50mgXTWcrg@comcast.com>
Source record: 131375

Henry,

The MFJ can not tell the difference between capacitive and inductive reactance; BUT it has a lot wider frequency range. I went with the MFJ 269, which also covers 430-450 MHz. If I was strictly HF, I probably would have gotten the Autek. Found I can not use the MFJ on 75 meters when the band is open, too many strong signals give me garbage readings. OK during the day.

Why don't you download both owner's manuals. They are online.

Tam/WB2TT
"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:ut8chi7ftimqd0@corp.supernews.com...
> Considering price, ease of use, etc what are the pros and cons of the RF1
> versus the MFJ 259 from those who have used both?
> tnx
> hank wd5jfr
>
>

2487. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 04:58:41 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211142058.257e484a@posting.google.com>
Source record: 131376

Roy Lewallen <w7el@eznec.com> wrote in message news:<ut816qrntq8e78@corp.supernews.com>...
> How great was this bandwidth improvement?
>
> Roy Lewallen, W7EL

I seem to remember that it more than doubled the bandwidth
Art

> Art Unwin KB9MZ wrote:
> > Looking at some older notes of mine I ran across
> > what I consider to be a better feeding mechanism
> > for antennas.It never gained interest even tho
> > nowadays modeling is widespread. Can anybody
> > point out why it is not in general use for technical reasons.
snip.
> > I would prefer no spamming this time around if possible against
> > introducing a new idea.
> > Regards
> > Art KB9MZ......XG
> > Regards
> > Art

2488. Ham Radio Forums

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 05:48:44 UTC
From: "HamTalk.com" <rclproductions@yahoo.com>
Message-ID: <ut96qgc83iv997@corp.supernews.com>
Source record: 131381

Be sure to check out www.HamTalk.com for Ham Radio Forums accessible via the web. Just wanted to let everyone know about this forum. It's a great resource to the Ham Radio community.

2489. Re: Need most efficient 160 m antenna design for small lot

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 06:30:01 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD49469.9EB7D238@cwis.net>
Source record: 131377

Andy,
Here's what you do. Put down about 2 miles of radials, or
at least as many as you can without getting totally disgusted
with the whole idea. Then, using your tower, put up an inverted
"L" antenna. Dust off that tuner you don't want to use, and
have fun...
'Doc

2490. Re: X-Beam?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 06:34:56 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD49590.4BBE9414@cwis.net>
Source record: 131378

Rob,
Probably because the ARRL has three 'sets' of antenna
projects/designs. They switch them about every 6-7 years.
Check back in 2008, or maybe 2012 edition of the Handbook,
it'll probably be back in there by then...
'Doc

2491. Re: How to buy K6STI's YO (Yagi Optimizer) program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 06:37:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ut95i639h1e8f7@corp.supernews.com>
Source record: 131379

His previous email address of k6sti@n2.net is no longer valid.

Roy Lewallen, W7EL

Crazy George wrote:
> I had an exchange with him by e-mail concerning TA about a year ago, before
> I inadvertently dumped my OE files, so I think he still maintains an email
> address.
>
> --
> Crazy George
> Remove NO and SPAM from return address
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:ut360gbr6h8td8@corp.supernews.com...
>
>>You can contact Brian at
>>
>>Brian Beezley
>>3532 Linda Vista Dr.
>>San Marcos, CA 92069
>>
>>Roy Lewallen, W7EL

2492. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 06:45:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <ut9611e9rsf3dc@corp.supernews.com>
Source record: 131380

The trick to increasing the bandwidth (other than introducing loss) is to devise a network or feed system geometry that generates a reactance that changes with frequency at about the same rate as the antenna does, but in the opposite direction. It sounds like you've done this. A doubled bandwidth would certainly be of interest to 75/80 operators at least, so I imagine it's not in general use either because it's too much of a mechanical nuisance, or nobody has heard of it. Have you published it somewhere? Do you have any measurements showing the bandwidth improvement?

Roy Lewallen, W7EL

Art Unwin KB9MZ wrote:
> Roy Lewallen <w7el@eznec.com> wrote in message
news:<ut816qrntq8e78@corp.supernews.com>...
>
>>How great was this bandwidth improvement?
>>
>>Roy Lewallen, W7EL
>
>
> I seem to remember that it more than doubled the bandwidth
> Art
>
>
>>Art Unwin KB9MZ wrote:
>>
>>>Looking at some older notes of mine I ran across
>>>what I consider to be a better feeding mechanism
>>>for antennas.It never gained interest even tho
>>>nowadays modeling is widespread. Can anybody
>>>point out why it is not in general use for technical reasons.
>>
> snip.
>
>>>I would prefer no spamming this time around if possible against
>>>introducing a new idea.
>>>Regards
>>>Art KB9MZ......XG
>>>Regards
>>>Art
>>

2493. Re: Ham Radio Forums

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 07:35:40 UTC
From: Bill M <exray@no>
Message-ID: <ut98o22o5fo4a0@corp.supernews.com>
Source record: 131382

"HamTalk.com" wrote:
>
> Be sure to check out www.HamTalk.com for Ham Radio Forums accessible via the
> web. Just wanted to let everyone know about this forum. It's a great
> resource to the Ham Radio community.

I'll be sure to check that out if my spam filters allow it.
Just wanted to reply.
-BM

2494. Re: Need most efficient 160 m antenna design for small lot

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 10:38:09 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211150238.13ab2d7f@posting.google.com>
Source record: 131383

"Andy Blackburn" <andyblackburn3@comcast.net> wrote in message
news:<qS-dncVwO9ir-UmgXTWcpw@comcast.com>...
> My single story home is on a lot 120' x 60'. I live on the east coast
> and would like to work at least the states and some DX.
> What would be the best design antenna to use on 160m
> with my property laid out as shown below. Any ideas or a link to a webpage
> with drawings or design would be appreciated. No unsightly
> antennas can be in the front yard...only a wire maybe to the light pole.
> I also prefer not to use a tuner except to expand my bandwith.
> Any help would be greatly appreciated.
>
> 73,
> Andy WD4FY

Probably an Inv L , or maybe shunt feed your tower and use top loading
wires. Seems to me the inv L would be easiest. You could run a wire up
"tall tree" as high as you can get it, and then just run the rest of
the wire off horizontal any way you can squeeze it in. The top wire
can make an L looking from overhead, and it's not going to hurt it. If
you could plant a few ground radials, the antenna would be fairly
efficient. The shorter the vertical , the more critical the ground
system. I always prefer a full size wire if at all possible. Thats why
I would probably prefer the full length inv L over a top loaded 40 ft
tower for general use. The tower would be good though if it had a lot
of radials under it. MK

2495. Re: Modes for quarter wave patch!!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 11:33:00 UTC
From: samsvl@nlr.nl
Message-ID: <Xns92C77FAA3AD1CsamsvlnlrnI@137.17.96.14>
Source record: 131384

Hi,

Start with 'CAD of microstrip antennas for wireless applications',
Robert A. Sainati, 1996 Artech House, inc, ISBN 0-89006-562-4
page 66

Sam

anandnavaneeth@hotmail.com (anand) wrote in
news:bc6bd131.0211141735.4ae499a3@posting.google.com:

> Hi,
> I like to know how will be the electric field distribution for a
> quarter wave patch(shorted at one end) for the dominant mode, first
> higher order mode and next higher order mode. Kindly help. I would
> really appreciate if i am given some links or papers where i can look
> for it.
>
> Thanks in advance.
>

2496. Re: Autek or MFJ ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 12:15:05 UTC
From: G&R <"stop the spam"@limbo.hell>
Message-ID: <gv5B9.14641$QD6.1467735@news20.bellglobal.com>
Source record: 131385

I have both the Autek RF 1 and the MFJ 269 (Got the MFJ to do 440mHz). The biggest difference between the two besides that are:

1. The SWR Readings are slightly different (Autek give slightly higher readings) There are a couple of articles about this in a back issue of QST if I remember correctly)
2. Autek gives a Z value directly.
3. Size. Autek is small fits in your pocket and is easy to handle on the tower.
4. Batteries. The MFJ eats them (10 AA at a time), the Autek one 9V cell slowly.
5. The MFJ 269 can take specific readings directly without doing math. Select it and Read it.

Having experienced both and having the option to use both I would be hard pressed to choose one as each has very good characteristics. You must decide which application you will use most and then decide. (Or if you have deep pockets, get both Hi, Hi).

I think both are reasonablely well made. I would definitely recommend the MFJ269 over the MFJ259 just for the extra features provided not only for the wider frequency spread, get the MFJ power supply and buy the rechargeable batteries elsewhere (you can higher power batteries for less money than what MFJ charges at the W*****T store).

73,

Guenther VE3CVS
ve3cvs@degendesigns.com

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:aPWdnUuJ3avm50mgXTWcrg@comcast.com...
> Henry,
>
> The MFJ can not tell the difference between capacitive and inductive
> reactance; BUT it has a lot wider frequency range. I went with the MFJ
269,
> which also covers 430-450 MHz. If I was strictly HF, I probably would have
> gotten the Autek. Found I can not use the MFJ on 75 meters when the band
is
> open, too many strong signals give me garbage readings. OK during the day.
>
> Why don't you download both owner's manuals. They are online.
>
> Tam/WB2TT
> "Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message

> news:ut8chi7ftimqd0@corp.supernews.com...
> > Considering price, ease of use, etc what are the pros and cons of the
RF1
> > versus the MFJ 259 from those who have used both?
> > tnx
> > hank wd5jfr
> >
> >
>
>

2497. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 12:53:51 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <z76B9.54990$hp5.7050277@twister.southeast.rr.com>
Source record: 131386

Why would they need to encrypt a weather report?

Alan
WN4HOG

--
Windsurfing Club: http://www.ibscc.org

"Irv Finkleman" <finkirv@shaw.ca> wrote in message
news:3DD42C7D.2777B863@shaw.ca...
> nospam wrote:
> >
> > I heard this station on about 8.186 MHz that continually
> > transmitted numbers in Spanish. Always in groups of 5.
> >
> > What is it?
>
> Very likely a weather report.
> Most text encryption systems used alphabetical
> characters.
> --
> Diagnosed Type II Diabetes March 5 2001
> Beating it with diet and exercise!
> 297/215/210 (to be revised lower)
> 58"/43"(!)/44" (already lower too!)
> --------------------
> Visit my FINALLY UPDATED website at
> http://members.shaw.ca/finkirv/
> --------------------
> Irv Finkleman,
> Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> Calgary, Alberta, Canada

2498. Re: Multiband verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 13:26:50 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <uC6B9.54994$hp5.7048158@twister.southeast.rr.com>
Source record: 131387
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

That's outstanding John! Congratulations.

I wound up buying an HF9V the other week. The morning after I installed it I hit a VK3 on 40. My report was 5x8. For me, having never worked a single DX outside The States on 40 with a dipole, that was a record. Very impressive verticals those Butternuts.

Regards,
Alan (and, off to the coast again this weekend :-)

--
Windsurfing Club: http://www.ibscc.org

"G4IRN" <mycall@qsl.net> wrote in message
news:VVVA9.5302$Mi4.91053@newsfep3-gui.server.ntli.net...
> I recommend Butternut verticals. With my ground mounted HF2V, in the last
> few weeks I have worked ZL7, JT1, VK6, 3X, 9L all on 80mtrs from my
postage
> stamp garden. See www.bencher.com and check out the articles. www.eham.net
> for product reviews.
>
>
>
>
>
> "Jamesv" <jamesv@premierdisco.co.uk> wrote in message
> news:3dd3960b_3@news1.vip.uk.com...
> > I am preparing to purchase a new multiband vertical for hf.
> >
> > Before I do so, I would like to make good comparisoins to help me make
the
> > correct choice.
> >
> > Does anyone have any idea where I can get technical and operational
> antenna
> > comparisons on the net? Also any good, well priced supplier contacts
would
> > be appreciated.
> >
> > Thanks
> >
> > JV
> >
> >

>
>

2499. FA: Archer All Band Scanner Antenna 1 hr left

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 13:58:58 UTC
From: Salle <sgrubor@shaw.caNSPM>
Message-ID: <C47B9.5478$ka.228290@news1.calgary.shaw.ca>
Source record: 131388
Cross-posted to: alt.radio.scanner,rec.radio.amateur.antenna,rec.radio.scanner

http://cgi.ebay.ca/ws/eBayISAPI.dll?ViewItem&item=800557195

--
*** Remove NSPM to reply ***

2500. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 14:07:02 UTC
From: Robert Spooner <rls19@psu.edu>
Message-ID: <3DD4FF86.4050603@psu.edu>
Source record: 131392

WA3FET, who teaches in the EE department here, has designed an 80-Meter dipole that uses two conductors in parallel with the dipole which is fed by a quarter-wave matching section. The antenna is a few feet wide and has a SWR of 1.5:1 or less accross the entire band.

73,
Bob AD3K

Roy Lewallen wrote:
> The trick to increasing the bandwidth (other than introducing loss) is
> to devise a network or feed system geometry that generates a reactance
> that changes with frequency at about the same rate as the antenna does,
> but in the opposite direction. It sounds like you've done this. A
> doubled bandwidth would certainly be of interest to 75/80 operators at
> least, so I imagine it's not in general use either because it's too much
> of a mechanical nuisance, or nobody has heard of it. Have you published
> it somewhere? Do you have any measurements showing the bandwidth
> improvement?
>
> Roy Lewallen, W7EL

--
Robert L. Spooner
Registered Professional Engineer
Associate Research Engineer
Intelligent Control Systems Department

Applied Research Laboratory Phone: (814) 863-4120
The Pennsylvania State University FAX: (814) 863-7841
P. O. Box 30
State College, PA 16804-0030 rls19@psu.edu

2501. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 14:09:19 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <LPCcnQfvSb8tYkmgXTWc3A@comcast.com>
Source record: 131389

Art,

This sounds like the dual of the Beta(?) match as used on some Hygain and M**2 VHF/UHF beams. Clearly mechanically superior, at least below 144 MHz. What feedpoint impedance do you come up with? Hygain and M**2 set theirs up for 200 ohms. Perhaps they do 200 ohms because a 4:1 narrow band balun is a lot easier to come up with than a 1:1. Do you have dimensions for a particular case?

Tam/WB2TT
"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message news:85ed38d.0211141118.72fca4d7@posting.google.com...

2502. Re: Autek or MFJ ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 14:10:40 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ar2v8u$lv7$1@knossos.btinternet.com>
Source record: 131390

Here in the UK I have had both for several years. They are expensive enough to make the average Ham stop and fhink. They are sold as sophisticated SWR meters but they are far more useful than that.

I find I use one just as often as I use the other. The MFJ presents data in more detail than the Autek which saves time and labour if further calculations are needed. But the amount of information is the same since they both operate on exactly the same principle. The MFJ has a more sophisticated internal data processor. That's why it costs more.

They both offer a so-called SWR meter range merely as a selling point which in practice is useless because other ranges tell you what you really want to know about impedances.

The MFJ has a much higher frequency range. I am not much interested in the spectrum above 30 MHz. But I have reason to believe accuracy falls off fast at VHF which the Autek doesn't cover. Let's say I'm suspicious. On the other hand the accuracy at VHF is probably good enough for most purposes involved with adjusting Ham antennas.

I use the MFJ mainly in the shack for measuring coils, capacitors, tuners, feedlines and things. It runs off the 50 Hz 240V power supply with a choke balun wound on a ferrite rod in the power lead.

The Autek is used mainly outdoors in the back yard to measure antennas and ground radials etc. The small internal battery doesn't last very long so I use a larger external 9V battery taped to the case. It can still be held in one hand. Or even hanging in mid air on the end of its measuring leads while the user records results. With my sort of usage this is a distinct advantage over the MFJ with its power lead.

Either of these instruments knocks the usual so-called SWR meter into a cocked hat. The best things since sliced bread. (Do you in the USA still eat such mundane stuff as bread, cheese and pickles? Or are you entirely addicted to Big Macs?)

At HF, both instruments are more than accurate enough for amateur needs. Frequency accuracy of the Autek is exceptionally good. But both have the same handicap - inability to distinguish between the +ve and -ve signs of reactance X when measuring R+jX.

Manufacturers' designers have known for years how to overcome this important handicap. But it seems company accountants/marketting experts/shareholders will not put an instrument on the market until they have cleaned up with their existing products.

==========

Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

"Henry Kolesnik" wrote
> Considering price, ease of use, etc what are the pros and cons of the RF1
> versus the MFJ 259 from those who have used both?
> tnx
> hank wd5jfr
>
>

2503. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 14:10:41 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ar2v90$lv7$2@knossos.btinternet.com>
Source record: 131391

The trick is to have two closely over-coupled antennas. Feed one,
overcoupled to the other.

We have the two-humped response of a pair of coupled tuned circuit.

The coupling coefficient has to be large because of the relatively low
antenna Q's.

Antenna Q's are low because of the relatively large radiation resistances in
high-efficiency antennas..

Having put you on the right track can I now leave you to fill in the details
of the final design of a wideband pair of dipoles? Or can we leave it to
the wisdom of the ancient Chinese ?

Trouble is - by the over-riding laws of nature it will be only a one-band
antenna. So nobody will be interested in one band if the only saving is 1 or
2 seconds of twiddling the knobs on the antenna tuner while watching the
so-called SWR meter.

Theoretically the bandwidth can be doubled but with twice the loss. But
nothing ever works according to theory anyway. So sadly let's forget the
whole idea. ;o)

Reg, G4FGQ

2504. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 14:19:01 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211150619.2fcc8f63@posting.google.com>
Source record: 131393

Roy Lewallen <w7el@eznec.com> wrote in message news:<ut9611e9rsf3dc@corp.supernews.com>...
> The trick to increasing the bandwidth (other than introducing loss) is
> to devise a network or feed system geometry that generates a reactance
> that changes with frequency at about the same rate as the antenna does,
> but in the opposite direction. It sounds like you've done this. A
> doubled bandwidth would certainly be of interest to 75/80 operators at
> least, so I imagine it's not in general use either because it's too much
> of a mechanical nuisance, or nobody has heard of it. Have you published
> it somewhere? Do you have any measurements showing the bandwidth
> improvement?
>
> Roy Lewallen, W7EL

No.Mentioned it some years ago on this group but got poo hewd with
lots of laughter and derision so I dropped the subject. The group then
turned on the
Hex beam manufacturer which thus gave me refuge.
Regrds
Art

>
> Art Unwin KB9MZ wrote:
> > Roy Lewallen <w7el@eznec.com> wrote in message
news:<ut816qrntq8e78@corp.supernews.com>...
> >
> >>How great was this bandwidth improvement?
> >>
> >>Roy Lewallen, W7EL
> >
> >
> > I seem to remember that it more than doubled the bandwidth
> > Art
> >
> >
> >>Art Unwin KB9MZ wrote:
> >>
> >>>Looking at some older notes of mine I ran across
> >>>what I consider to be a better feeding mechanism
> >>>for antennas.It never gained interest even tho
> >>>nowadays modeling is widespread. Can anybody
> >>>point out why it is not in general use for technical reasons.
> >>
> > snip.
> >
> >>>I would prefer no spamming this time around if possible against

> >>>introducing a new idea.
> >>>Regards
> >>>Art KB9MZ......XG
> >>>Regards
> >>>Art
> >>

2505. Needed: Comtek RCB-5 remote antenna switch users guide

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 15:25:24 UTC
From: golfradio@yahoo.com
Message-ID: <21b5602c.0211150725.303c06d7@posting.google.com>
Source record: 131394

I just purchased a Comtek RCB-5 remote antenna switch and am looking for the users guide. I've contacted Comtek and they do not have it. Anyone out there in radioland have it? Will pay reasonable copying/shipping cost. Email attachment will work also. Thanks in advance...

73', Mark NB1U

2506. Tri-band vertical and discone on one mast?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 15:27:02 UTC
From: cprstn54zz@att.net
Message-ID: <3dd50f91.2604078@news-server.optonline.net>
Source record: 131395

I want to put a 6m/2m/70cm vertical and a discone on the same steel Radio Shack mast to be mounted on the gable end of my house near the peak of the roof.

The discone fits in the center of the mast. The vertical has its own short extension mast that clamps onto the main mast, and so is offset around 2 inches. It can be positioned to start a reasonable distance above the discone.

1) Assuming I only TX on one of them at a time and use only the vertical for 6m/2m/70cm, will they significantly interefere with each other?

2) What is the minimum distance I should provide between the disc and the lower end of the vertical?

3) Do the discone legs need to be above the peak of my roof? The roof is plywood over wood framing, with asphalt shingles over. The XYL-preferred alternative is to mount the discone so the disk is just above the peak and most of the cone is below.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

2507. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 15:30:19 UTC
From: M1nn0w <1c3d0g@att.net>
Message-ID: <fq8B9.8066$vM1.526809@bgtnsc04-news.ops.worldnet.att.net>
Source record: 131396

I don't know the answer but I also heard the same type of Transmission on 10.126 mhz. A woman speaking in Spanish. Almost every morning there is a CW station that is very strong on or around this same frequency broadcasting groups of 5 letters. It is almost 40 db over S9 in the Mid-Hudson Valley of NY.

John (WB2TQC)

2508. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 15:38:40 UTC
From: Bill M <exray@no>
Message-ID: <uta51ogho0ht2c@corp.supernews.com>
Source record: 131397

Alan wrote:
>
> Why would they need to encrypt a weather report?
>
> Alan
> WN4HOG

Hehehe. Actually, one of the popular techniques in the spy world is to constantly flood the airwaves with jibberish messages and bogus encryption so as to put anything real into relative obscurity.
-BM

2509. 40m antenna's....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 15:45:26 UTC
From: M0DCM Dave <m0dcm@blueyonder.co.uk>
Message-ID: <rE8B9.19202$5Q5.11817@news-binary.blueyonder.co.uk>
Source record: 131398

Hi There,

I currently running an inverted V halfwave dipole on 40m, but I'm trying to improve on it.

My Idea on the improvement is to strap 2 40m inverted V's together and both firing at the same time. I've been told that this works well.

The question I would like to ask is, does anyone else know of anymore configurations I could try to improve on, on 40m. Loops are out of the question as I'm not a Loop fan!!

Cheers for any help...

M0DCM Dave

2510. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 15:53:38 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211150753.2a9457cd@posting.google.com>
Source record: 131399

aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message
news:<85ed38d.0211141118.72fca4d7@posting.google.com>...
> Looking at some older notes of mine I ran across
snip

> 'gain' and yes, I did write it up in a patent many years ago but it
> never gained professional review or a write up in a book.

Maybe I misspoke here. At the time I was using the
Patent Office as a sort of technical overview of ideas.
Then I met the examiner and realised that my original
thoughts of the Patent Office was ridiculous and threw
away many write ups.
My main thoughts with such an antenna feed was that the
military had a need for a frequency agile radiator where
they could code messages with the use of high speed,
high frequency, multi hop messages to hinder interception
of same.
Sorry if I mislead anybody.
Art

2511. Looking for antenna suggestions for unusual location

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 16:05:15 UTC
From: Rick Adams <ke8hh@qsl.net>
Message-ID: <18F2E7E6AD56990A.3C12B36F8B8733F8.9E4FD6142E102218@lp.airnews.net>
Source record: 131406

We've recently moved to a rather unusual location and need
some tips from the experts on the best choice for an antenna.

Currently, we're living in a 40'x12' park model RV (the kind
of rv that looks--and lives--like a small mobile home) in a Michigan
resort. Our rv is 1-1/2 stories (it has two bedrooms in lofts
upstairs) with the usual aluminum siding and shingle roof. The lot
itself is approx. 25'x60', with tall trees across the back (25') side.
Obviously, our only practical solution will have to include a roof
mount installation. We already have a (very large) DirecWay 2-way
satellite Internet antenna there, which would make it difficult to use
even a relatively small beam on the roof w/o conflict with the dish.

Obviously, a vertical is probably our most practical solution
(unless someone can suggest an alternative, given the space
constraints--we _can_ anchor the end(s) of a wire antenna to the trees
behind us, but only if we keep the anchors high and within the 25'
width limitation). Our primary questions concern the use of radials
and grounding. With respect to radials, I read on the Butternut site
that mounting in the center of the top of a mobile home obviates their
need and provides an extremely efficient ground plane, in much the
same way that mounting in the center of the roof of a car does so for
a mobile installation. I've been unable to verify this claim in any of
the (limited) resource works I have on hand--can anyone tell me if
it's accurate and, if so, whether it would therefore allow for the
effective use of an antenna such as the Butternut HF-9V coupled to a
TBR-160S 160m add-on (which isn't recommended for use with the
Butternut CBK kit--used to substitute for an efficient ground plane).

Right now my primary concerns are: (1) an efficient antenna
system that will provide coverage of as wide a range of bands as
possible (I'm using an FT-920 which covers 6m-160m) with a reasonably
good swr (i.e., one that can be tuned easily with either the built-in
tuner in the FT-920 or, if necessary, with my external MFJ-969 tuner);
(2) efficient use of space (the antenna _cannot_ extend beyond the
limits of the lot size, and the less space it occupies the better);
(3) reasonable wind resistance (the antenna will be exposed directly
to winds from the SW, S, NW, & N but sheltered from the East) without
extensive guying (space considerations); (4) reasonable cost and ease
of installation (I'm a semi-retired college professor with the
climbing ability of the average horse and don't expect to have any
skilled assistance with the installation); (5) dependability.

My primary questions:

1. How accurate are the statements concerning the efficiency of a mobile home/rv as a part of the ground plane?

2. Should the rv itself be grounded directly (it isn't currently) or will this defeat the effectiveness of the capacitive coupling to the ground itself?

3. What kind of antenna would work the best in this circumstance--other than a vertical are there other, potentially better, solutions?

4. If a vertical is selected, what vertical would you recommend and--if one is available for it--would it be likely to work with a 160m kit?

Any answers, suggestions, or comments would be greatly appreciated, either here or via email.

73 de KE8HH

2512. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 16:16:01 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <uta7e4337m4k8b@corp.supernews.com>
Source record: 131400

You should know by now that there are two kinds of folks on newsgroups, the first come seeking/sharing knowledge and the second revel in making any information as obtuse as possible and can prove that no antenna will ever work under the conditions stated.

Forget all the nonsense and write up your antenna, submit it to QST and CQ for publication. Let the ham community decide if it is useful to hams. Forget the experts that demand an antenna must work perfect under all conditions to be called an antenna. We are not commercial broadcasters and can live with less than optimum radiators. I for one would be interested in a wideband 75 meter antenna. It is the only band I really enjoy DXing on and have used cage dipoles and the old Collins spread wire design to enhance bandwidth. I hate messing with a tuner and have used Cam's method of tuning to go from the DX window to the SSB net.

How about some specifics on your approach. Those of us in the first group would appreciate it.

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:85ed38d.0211150619.2fcc8f63@posting.google.com...
> No.Mentioned it some years ago on this group but got poo hewd with
> lots of laughter and derision so I dropped the subject. The group then
> turned on the
> Hex beam manufacturer which thus gave me refuge.
> Regrds
> Art
>
> >
> > Art Unwin KB9MZ wrote:
> > > Roy Lewallen <w7el@eznec.com> wrote in message
news:<ut816qrntq8e78@corp.supernews.com>...
> > >
> > >>How great was this bandwidth improvement?
> > >>
> > >>Roy Lewallen, W7EL
> > >
> > >
> > > I seem to remember that it more than doubled the bandwidth

> > > Art
> > >
> > >
> > >>Art Unwin KB9MZ wrote:
> > >>
> > >>>>Looking at some older notes of mine I ran across
> > >>>>what I consider to be a better feeding mechanism
> > >>>>for antennas.It never gained interest even tho
> > >>>>nowadays modeling is widespread. Can anybody
> > >>>>point out why it is not in general use for technical reasons.
> > >>
> > > > snip.
> > >
> > >>>>I would prefer no spamming this time around if possible against
> > >>>>introducing a new idea.
> > >>>>Regards
> > >>>>Art KB9MZ......XG
> > >>>>Regards
> > >>>>Art
> > >>

2513. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 16:18:44 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <uta7j6cap11ada@corp.supernews.com>
Source record: 131405

These are messages to spy type folks. The numbers refer to a page,
paragraph, and word number in a pre-agreed on book. It has been going on for
years and most of the transmissions originate in Virginia and beamed toward
Cuba. Care to guess who might be the originator of the messages?

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"M1nn0w" <1c3d0g@att.net> wrote in message
news:fq8B9.8066$vM1.526809@bgtnsc04-news.ops.worldnet.att.net...
> I don't know the answer but I also heard the same type of Transmission on
> 10.126 mhz. A woman speaking in Spanish. Almost every morning there is a
CW
> station that is very strong on or around this same frequency broadcasting
> groups of 5 letters. It is almost 40 db over S9 in the Mid-Hudson Valley
of
> NY.
>
> John (WB2TQC)
>
>
>

2514. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 16:27:44 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <4g9B9.61288$ku2.4342612@twister.southeast.rr.com>
Source record: 131401

I'm sure there are a lot of messages passing through Al Jazeera too. Makes you wonder if CNN is ever used as a conduit. (This paranoia has got to stop!:-)

The big advantage of using standard SW broadcast bands is that a SW receiver can be purchased cheaply anywhere in the world. No satellite technology required here.

It's funny but when I was learning spanish 30 years ago I used to listen to these same broadcasts. I'd fall asleep at night listening to the monotonous drone of numbers.... "siete, cinco, uno, ocho, cinco..."

Alan

--
Windsurfing Club: http://www.ibscc.org

"Bill M" <"exray"@no spam-caribe.net> wrote in message
news:uta51ogho0ht2c@corp.supernews.com...
> Alan wrote:
> >
> > Why would they need to encrypt a weather report?
> >
> > Alan
> > WN4HOG
>
> Hehehe. Actually, one of the popular techniques in the spy world is to
> constantly flood the airwaves with jibberish messages and bogus
> encryption so as to put anything real into relative obscurity.
> -BM

2515. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 16:32:07 UTC
From: Larry Higgins <n9dx@attbi.com>
Message-ID: <bk9B9.10325$__1.3779@rwcrnsc51.ops.asp.att.net>
Source record: 131402

More height might indeed be desirable, but this antenna will not, IMHO, "suck ass" on DX. It will certainly perform better than a dipole or a single loop at the same height. The gain will be about 4 or 5 db over a single loop at the same height. Perhaps equally important, loop antennas such as quads or delta loops have excellent side rejection so if an interfering station is at or near 90 degrees to the side the QRM is greatly reduced.

The question of top or bottom feed is not important. The current distribution in the antenna shows maxima at the feedpoint and at the opposite point. This is true regardless of the loop geometry: quad, triangle, circular, or whatever. The current maximum at the feedpoint will be slightly higher than the one at the feedpoint. Therefore feeding the top results in slightly higher gain. Again, this is true regardless of the geometry chosen.

From a mechanical point of view, the apex at the top can be accomplished with a single support for each loop, even with wire loops. With their apexes at the top, multielement antennas can be supported by suspending them beneath a catenary rope.

"Zoran Brlecic" <WA7AA@attbi.com> wrote in message
news:3DD091A4.1040701@attbi.com...
> Lee Carkenord wrote:
> > I can build a 2 element "delta-loop" antenna......(each element an
> > equilateral triangle.)
> >
> > This would be for 15 meter ssb.
> >
> > I live in Colorado, and this antenna will be for dx'ing.
> >
> > I can make this antenna with the apex up, fed at the middle of the
> > base/bottom.
> >
> > Or, I can make it apex down, fed at the apex.
> >
> > In either case, apex up or down, the feedpoint will be about 15 feet
> > above ground....feeding with 50 ohm coax.
> >
> >
> > Which configuration would be better for dx'ing from Colorado?
>
> Both will suck ass for dxing, since your 15m antenna is only 15 feet
> above ground. If you could raise it any higher, then things would start
> to matter. The least what you can do is make it apex down, since then
> one of the triangle sides is as far as possible from the ground.

>
> Don't bother making it a multi-element beam at this height because it
> will never work any better than a single element.
>
> Height to antennas is what location is to real estate.
>
> 73 ... Zoran WA7AA
>

2516. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 16:42:51 UTC
From: Larry Higgins <n9dx@attbi.com>
Message-ID: <fu9B9.9119$P31.2807@rwcrnsc53>
Source record: 131403

Larry, with your feedpoint at the point you describe, the polarization is mainly vertical but partly horizontal. If your feedpoint was at the center of the triangle's vertical side, you would then have almost entirely vertical polarization and very little horizontal polarization. However, vertical polarization is not desirable for 15 meter DX because ground losses are greater. If you moved your feedpoint to somewhere just to the right of the bottom corner, your results would probably improve, perhaps by a few db. Not a dramatic difference, but when chasing dx every decibel counts!

"Larry Gauthier" <larryg_at_ismi.net> wrote in message news:ut1q3hlqgl4ad4@corp.supernews.com...
> I feed my vertical delta loop 1/4 wavelength down from the apex, providing
> vertical polarization and better take-off angle for DX. And if you feed it
> with 1/4 wave of 75 ohm coax (as a balun) you will be able to get the SWR
> down to 1:1.
>
> Mine looks kinda' like this (forgive text-res graphics), seen from the side:
>
> +
> | \
> | \
> | \
> | \
> | +
> | /
> =fp /
> | /
> | /
> +
>
> -larry
> K8UT
> "Lee Carkenord" <carkenord@juno.com> wrote in message
> news:4346b55e.0211111641.779500ed@posting.google.com...
> > I can build a 2 element "delta-loop" antenna......(each element an
> > equilateral triangle.)
> >
> > This would be for 15 meter ssb.
> >
> > I live in Colorado, and this antenna will be for dx'ing.
> >
> > I can make this antenna with the apex up, fed at the middle of the

> > base/bottom.
> >
> > Or, I can make it apex down, fed at the apex.
> >
> > In either case, apex up or down, the feedpoint will be about 15 feet
> > above ground....feeding with 50 ohm coax.
> >
> >
> > Which configuration would be better for dx'ing from Colorado?
> >
> > Thank you..... Lee Carkenord KA0FPJ
>
>

2517. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 16:48:39 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DD5254F.3E9F6294@shaw.ca>
Source record: 131404

Alan wrote:
>
> Why would they need to encrypt a weather report?
>
> Alan
> WN4HOG
>
> --
> Windsurfing Club: http://www.ibscc.org
>
> "Irv Finkleman" <finkirv@shaw.ca> wrote in message
> news:3DD42C7D.2777B863@shaw.ca...
> > nospam wrote:
> > >
> > > I heard this station on about 8.186 MHz that continually
> > > transmitted numbers in Spanish. Always in groups of 5.
> > >
> > > What is it?
> >
> > Very likely a weather report.
> > Most text encryption systems used alphabetical
> > characters.
> > --
> > Diagnosed Type II Diabetes March 5 2001
> > Beating it with diet and exercise!
> > 297/215/210 (to be revised lower)
> > 58"/43"(!)/44" (already lower too!)
> > --------------------
> > Visit my FINALLY UPDATED website at
> > http://members.shaw.ca/finkirv/
> > --------------------
> > Irv Finkleman,
> > Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
> > Calgary, Alberta, Canada

The five figure groups used in weather reports are not an encryption -- they are a well known universal code which allows you to plot things like isobars, highs, lows, and such very easily. We used to send in weather from our ships, usually about 10 five figure groups, and the information from all vessels in the area, both commercial and military, was compiled into a large weather map. The central weather agency put that map out in the five figure code. I just sent and received

ths stuff -- the ships meteorologist took care of the
coding and encoding.
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

2518. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 17:03:37 UTC
From: Bill M <exray@no>
Message-ID: <utaa0scnjqho10@corp.supernews.com>
Source record: 131407

Larry Higgins wrote:
>
> Larry, with your feedpoint at the point you describe, the polarization is
> mainly vertical but partly horizontal.

I need some explanation help here. How can the polarization be partly
vertical and partly horizontal?
I can visualize circular, horizontal, vertical and all points in between
but not a mix.
Can someone explain this in simple terms for me?

-Bill

2519. Re: Looking for antenna suggestions for unusual location

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 17:10:52 UTC
From: Rudi <wiedemann@attbi.com>
Message-ID: <wU9B9.9371$P31.2931@rwcrnsc53>
Source record: 131408

RIck:

I think I have the PERFECT solution for you.

I (and now 3 of my friends) have a Cushcraft MA5V vertical. It operates on 10,12,15,17,20 with max SWR under 1.5

And it's only 14.5 feet tall and needs NO RADIALS! It has 4 "stingers" angled down close to the base. Uses coax provided to form a balun so you don't radiate on your feedline. You just have to be patient and careful when you tune each band the first time by adjusting the mini-stinger rods on each band resonator.

We also use it on our 25' RV while camping. It's fabulous.

Have worked tons of DX with 5x7 - 5x9 reports routinely.

One friend ditched his $500 R8 in favor of this baby he loved it so much!

Another friend pulled down his TV antenna (he now has cable) and put up the MA5V. He says the "eyesore" factor is way less.

And it's only $209 at HRO.

If you decide to give it a try, let me know how you like it.

Rudi - WA6RW

"Rick Adams" <ke8hh@qsl.net> wrote in message news:18F2E7E6AD56990A.3C12B36F8B8733F8.9E4FD6142E102218@lp.airnews.net...
> We've recently moved to a rather unusual location and need
> some tips from the experts on the best choice for an antenna.
>
> Currently, we're living in a 40'x12' park model RV (the kind
> of rv that looks--and lives--like a small mobile home) in a Michigan
> resort. Our rv is 1-1/2 stories (it has two bedrooms in lofts
> upstairs) with the usual aluminum siding and shingle roof. The lot
> itself is approx. 25'x60', with tall trees across the back (25') side.
> Obviously, our only practical solution will have to include a roof
> mount installation. We already have a (very large) DirecWay 2-way
> satellite Internet antenna there, which would make it difficult to use
> even a relatively small beam on the roof w/o conflict with the dish.
>
> Obviously, a vertical is probably our most practical solution
> (unless someone can suggest an alternative, given the space
> constraints--we _can_ anchor the end(s) of a wire antenna to the trees
> behind us, but only if we keep the anchors high and within the 25'
> width limitation). Our primary questions concern the use of radials

> and grounding. With respect to radials, I read on the Butternut site
> that mounting in the center of the top of a mobile home obviates their
> need and provides an extremely efficient ground plane, in much the
> same way that mounting in the center of the roof of a car does so for
> a mobile installation. I've been unable to verify this claim in any of
> the (limited) resource works I have on hand--can anyone tell me if
> it's accurate and, if so, whether it would therefore allow for the
> effective use of an antenna such as the Butternut HF-9V coupled to a
> TBR-160S 160m add-on (which isn't recommended for use with the
> Butternut CBK kit--used to substitute for an efficient ground plane).
>
> Right now my primary concerns are: (1) an efficient antenna
> system that will provide coverage of as wide a range of bands as
> possible (I'm using an FT-920 which covers 6m-160m) with a reasonably
> good swr (i.e., one that can be tuned easily with either the built-in
> tuner in the FT-920 or, if necessary, with my external MFJ-969 tuner);
> (2) efficient use of space (the antenna _cannot_ extend beyond the
> limits of the lot size, and the less space it occupies the better);
> (3) reasonable wind resistance (the antenna will be exposed directly
> to winds from the SW, S, NW, & N but sheltered from the East) without
> extensive guying (space considerations); (4) reasonable cost and ease
> of installation (I'm a semi-retired college professor with the
> climbing ability of the average horse and don't expect to have any
> skilled assistance with the installation); (5) dependability.
>
> My primary questions:
>
> 1. How accurate are the statements concerning the efficiency
> of a mobile home/rv as a part of the ground plane?
>
> 2. Should the rv itself be grounded directly (it isn't
> currently) or will this defeat the effectiveness of the capacitive
> coupling to the ground itself?
>
> 3. What kind of antenna would work the best in this
> circumstance--other than a vertical are there other, potentially
> better, solutions?
>
> 4. If a vertical is selected, what vertical would you
> recommend and--if one is available for it--would it be likely to work
> with a 160m kit?
>
> Any answers, suggestions, or comments would be greatly
> appreciated, either here or via email.
>
> 73 de KE8HH
>

2520. Re: 40m antenna's....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 17:24:03 UTC
From: yeah_right@noway.com
Message-ID: <3dd52cf0.7682644@news.verizon.net>
Source record: 131409

On Fri, 15 Nov 2002 15:45:26 -0000, "M0DCM Dave"
<m0dcm@blueyonder.co.uk> wrote:

>My Idea on the improvement is to strap 2 40m inverted V's together and both
>firing at the same time. I've been told that this works well.

Does this work???? I can't see how this would work. If both V's are
identical and fed at the same point and co-existist in the same exact
place, would it be any more effective than a single wire? It seems
like it would be more effective to use one higher quality conductor
with lower losses than use two wires.

Scott
N9WDH

2521. Re: How to directly connect frequency counter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 17:24:42 UTC
From: k7itm@aol.com
Message-ID: <3200347.0211150924.4603840d@posting.google.com>
Source record: 131410

Wes Stewart <n7ws@nowhere.com> wrote in message
news:<0d98tucb82hp2q8557fr42nom4f47ujmu3@4ax.com>...
...
> I dunno... he said somewhere along the line, "I had hoped that its
> antenna would pick up stray radiation when I TX from my FT990."
>
> I haven't really followed the thread so I don't recall anything about
> a QRP rig.

Oh, good, I'm not the only one that gets overloaded reading posts! It
was about three paragraphs further down in the original posting.

:-)

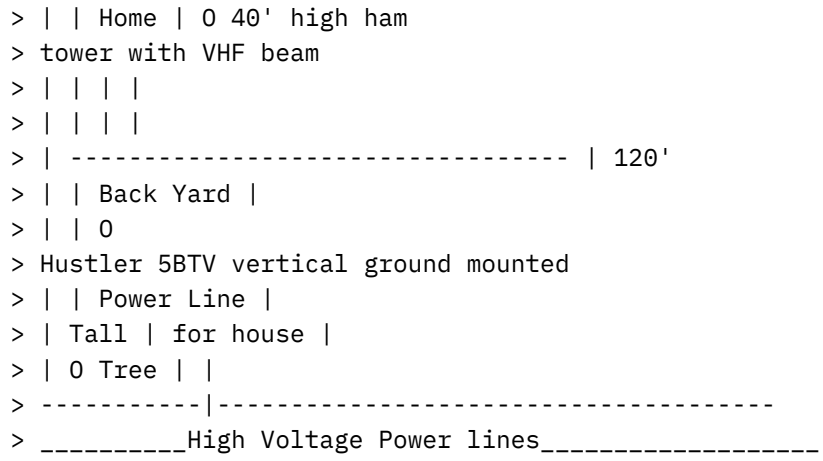
Cheers,
Tom

2522. Re: Need most efficient 160 m antenna design for small lot

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 17:32:41 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211150932.59798bb5@posting.google.com>
Source record: 131411

Food for thought Andy.
I would think that the rear of the house would
be 'out of bounds' because of the high voltage lines.
On the front of the house you have the conditions
that it must look reasonable and the size of the lot
rules out radials. To my mind that only leaves the
'flagpole ' type but with it being a vertical DIPOLE form
with the feed line being within the pole. This type of radiator
provides a lower angle of radiation compared to the norm
which appears to be one of your needs.
Art

"Andy Blackburn" <andyblackburn3@comcast.net> wrote in message
news:<qS-dncVwO9ir-UmgXTWcpw@comcast.com>...
> My single story home is on a lot 120' x 60'. I live on the east coast
> and would like to work at least the states and some DX.
> What would be the best design antenna to use on 160m
> with my property laid out as shown below. Any ideas or a link to a webpage
> with drawings or design would be appreciated. No unsightly
> antennas can be in the front yard...only a wire maybe to the light pole.
> I also prefer not to use a tuner except to expand my bandwith.
> Any help would be greatly appreciated.
>
> 73,
> Andy WD4FY
>
>
>
>
> N
> |
> W<------> E
> |
> S
>
> 60'
> --
> | O Light Pole |
> | |
> | |
> | Front Yard |
> | ---------------------------------- |
> | | | |
> | | | |


| | Home | O 40' high ham
tower with VHF beam
| | | |
| | | |
| ---------- | 120'
| | Back Yard |
| | O
Hustler 5BTV vertical ground mounted
| | Power Line |
| Tall | for house |
O Tree	
_____High Voltage Power lines_____

2523. Re: Superantenna MP-1 and Icom IC-746Pro

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 17:59:33 UTC
From: tcp277@yahoo.com
Message-ID: <c50a6464.0211150959.35530733@posting.google.com>
Source record: 131412

OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DD47A55.AEF56099@ieee.org>...
> "C. Todd" wrote:
> >
> > OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DD3EE9C.B9B6741F@ieee.org>...
> > > "C. Todd" wrote:
> > > > The problem, however, seems to be recieving.. My S-meter is always at
> > > > 50%, and there's just noise all over the band, on every band.. Nothing
> > > > but the absolute strongest signals make it through, and it's very
> > > > noisy when they do..
> > >
> > > Sounds like a typical vertical installed at my QTH.
> >
> > Hmm. Not encouraging.. Any advice as to perhaps make this work a
> > little better?
>
> How about a horizontal dipole? :-) At my QTH, vertical noise is 2 S-units
> higher than horizontal noise rendering a vertical virtually useless for me.

Yep, my vert noise is OVER 2 S-units here.. Only problem is, a
horizontal dipole is kinda rough in an apartment setting. :) Maybe I
should start looking for a house.. Lord knows I spent enough on this
whole rig / MP-1 deal to make the first mortgage payment. :)

I think I'm in pretty rough shape at my QTH, to be honest.. 2 huge
mercury vapor lights, 8 a/c units, and a CATV repeater - right by my
patio.

Hmm. Maybe that has something to do with it. ugh. :)

2524. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 18:04:54 UTC
From: rjones@mail.cccd.edu
Message-ID: <ar3d06$s48$1@spock.dis.cccd.edu>
Source record: 131413

Not only is he an arrogant "Know It All" but apparently not as educated as
he claims. One of the main points of higher education is to show you how to
write using proper punctuation and grammar. Someone should educate our friend
on the proper use of question marks and quotation marks as well as
proofreading. He gets an "D" on this assignment.

Rick, KG6RJ
Fellow Ingoramus

In article <3DD43A4D.EE2B3FFA@attbi.com>, david.shrader@attbi.com says...
>
>YES !! You are an arrogant 'Know it All'. A Gentleman's approach can
>make the same point and not be offensive.
>
>Deacon Dave, W1MCE
>Program Chief Engineer, retired
>
>John Passaneau wrote:
>>
>> Well Pete:
>>
>> I would have told you the same to your face, then the I would have answered
>> your question. You may notice I work for a university. One of the main
>> points of higher education is to show you how to do your own research. If
>> you had done some research, you would then be able to ask a question that
>> has some usefulness. As, does it work as they claim, is there anyway to make
>> it work better, or will it do what I want it to do. Above all you would have
>> had the pleasure of discovering something for your self. The things that a
>> person remembers best are those they worked for on their own. If you do it
>> often enough you too can be a "know it all" like I am.
>>
>> 73
>>
>> --
>> John Passaneau, W3JXP
>> Physics Dept. Electronics Shop
>> Penn State University
>> 104 Davey Lab, University Park , Pa. 16802
>> 814.863.4297, jxp16@psu.edu
>>
>> "Pete Holden" <peholden@attbi.com> wrote in message
>> news:dPzA9.19916$ME6.10525@rwcrnsc53...
>> > Virtually every question on this newsgroup could be answered by
>> independent
>> > study and research, John. I thought, though, that the point of the group

>> > was to provide a forum for some friendly chat and exchange of ideas.
>> >
>> > You and Bessler add nothing to the hobby, serve only to diminish
>> yourselves,
>> > and if standing eye to eye with me, would likely wet your pants before
>> > managing to be so rude. Unfortunately, this format sometimes brings out
>> the
>> > worst in people.
>> >
>> > 73s Pete
>> >stuff sniped

2525. US Government: Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 18:10:01 UTC
From: nospam <xxxmmxxx@xxxspiritone.com>
Message-ID: <3DD53879.F72865AD@xxxspiritone.com>
Source record: 131416

I'm our government could DF the source of the transmissions
from Virginia or anywhere... esp. since its been going on for
so long.
Wonder if they know?

"Fred Hambrecht Sr." wrote:

> These are messages to spy type folks. The numbers refer to a page,
> paragraph, and word number in a pre-agreed on book. It has been going on for
> years and most of the transmissions originate in Virginia and beamed toward
> Cuba. Care to guess who might be the originator of the messages?
>
> --
> For Admiral Poindexter's folks:
> Bomb, anthrax, attack, acid, hijack, skyjack
> sniper, plutonium, nuclear, Big Mac, jihad
> Democrats, terror, Howdy Doody, Oprah
>
> "Those that sacrifice freedom for security deserve neither"
>
> "M1nn0w" <1c3d0g@att.net> wrote in message
> news:fq8B9.8066$vM1.526809@bgtnsc04-news.ops.worldnet.att.net...
> > I don't know the answer but I also heard the same type of Transmission on
> > 10.126 mhz. A woman speaking in Spanish. Almost every morning there is a
> CW
> > station that is very strong on or around this same frequency broadcasting
> > groups of 5 letters. It is almost 40 db over S9 in the Mid-Hudson Valley
> of
> > NY.
> >
> > John (WB2TQC)
> >
> >
> >

2526. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 18:45:58 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <e4fatuo6rd11lll5dt25934jcsbpbma6hm@4ax.com>
Source record: 131414

On Fri, 15 Nov 2002 16:27:44 GMT, "Alan"
<alannc44@{nospam}ix.netcom.com> wrote:

>I'm sure there are a lot of messages passing through Al Jazeera too. Makes
>you wonder if CNN is ever used as a conduit. (This paranoia has got to
>stop!:-)
>

All Hail Bush,

You forgot CBS, ABC, NBC, PBS and any letters of the alphabet left over from the press corps reporting the latest plans gushing from the whitehouse. Who needs code or spies anymore when state secrets are put up in bright lights for all to see?

National security? What a joke. They wanted to move the trial of a notorious security risk because the FBI kept turning their top secret information over to him for review. That's the solution? In times past this security violation would have had heads rolling, now its just eyes rolling and no more penalty for the bozo that left the Xerox running than one gets for jay-walking. At least Anderson consultants knew how, why, and when to turn on the shredder.

West Point, when under attack and being threatened with a sell-out by Benedict Arnold would be a 230 year old royal park now by these standards of security.

30 years ago when I tripped over the doped out sons and daughters of the elite shambling along the street begging for spare change, I wondered where they would eventually end up after they finished spitting on me in uniform. I no longer wonder, they now occupy the three houses of government preaching patriotism.

But I guess this off-topic to spy numbers. To pull it around I would offer that the right wing has no more legitimacy than the eh/cfa/fractal crew.

death to the terrorists,
Richard Clark, KB7QHC

2527. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 18:55:08 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <dkgatus8ijocoqmb2n21qga1qndnou59qc@4ax.com>
Source record: 131415

On 15 Nov 2002 07:53:38 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>My main thoughts with such an antenna feed was that the
>military had a need for a frequency agile radiator where
>they could code messages with the use of high speed,
>high frequency, multi hop messages to hinder interception
>of same.
>Sorry if I mislead anybody.
> Art

Hi Art,

You may try actually giving credit to the real inventor of this rather
than passing it off as one of your neglected masterpieces.

Hedy Lamarr beat you to this by more than 60 years.

73's
Richard Clark, KB7QHC

2528. Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 19:57:16 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <utakctpuer8i25@corp.supernews.com>
Source record: 131417

You lost, get over it one more time.

Show more
Dems the door
in 2004...

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:e4fatuo6rd11lll5dt25934jcsbpbma6hm@4ax.com...
> On Fri, 15 Nov 2002 16:27:44 GMT, "Alan"
> <alannc44@{nospam}ix.netcom.com> wrote:
>
> >I'm sure there are a lot of messages passing through Al Jazeera too.
Makes
> >you wonder if CNN is ever used as a conduit. (This paranoia has got to
> >stop!:-)
> >
>
> All Hail Bush,
>
> You forgot CBS, ABC, NBC, PBS and any letters of the alphabet left
> over from the press corps reporting the latest plans gushing from the
> whitehouse. Who needs code or spies anymore when state secrets are
> put up in bright lights for all to see?
>
> National security? What a joke. They wanted to move the trial of a
> notorious security risk because the FBI kept turning their top secret
> information over to him for review. That's the solution? In times
> past this security violation would have had heads rolling, now its
> just eyes rolling and no more penalty for the bozo that left the Xerox
> running than one gets for jay-walking. At least Anderson consultants
> knew how, why, and when to turn on the shredder.
>
> West Point, when under attack and being threatened with a sell-out by
> Benedict Arnold would be a 230 year old royal park now by these
> standards of security.
>
> 30 years ago when I tripped over the doped out sons and daughters of

> the elite shambling along the street begging for spare change, I
> wondered where they would eventually end up after they finished
> spitting on me in uniform. I no longer wonder, they now occupy the
> three houses of government preaching patriotism.
>
> But I guess this off-topic to spy numbers. To pull it around I would
> offer that the right wing has no more legitimacy than the
> eh/cfa/fractal crew.
>
> death to the terrorists,
> Richard Clark, KB7QHC

2529. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 20:14:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utaldtq8juki90@corp.supernews.com>
Source record: 131270

When the orientations of the fields don't change over a cycle, the polarization is called linear. And, when polarization is linear and the E field is oriented vertically, it's called vertical polarization; horizontal polarization is when the E field is oriented horizontally. But these are just two very special cases of linear polarization -- the E field can be oriented in any direction (except that it can't have any component in the direction of travel in the far field if the medium is lossless). Describing polarization as having vertical and horizontal components is exactly analagous to describing a tilted line in terms of X and Y, or a location as being so far to the east and so far to the north of another. For example, if the E field is directed at an angle of 45 degrees relative to vertical or horizontal, it's said to have equal vertically and horizontally polarized components. Just like a 45 degree tilted line of length 1 which spans 0.707 units in the X direction and 0.707 units in the Y direction, a 45 degree tilted field of 1 V/m can be said to be composed of 0.707 V/m of horizontal polarized field and 0.707 V/m of vertically polarized field -- if you added those vertical and horizontal components together in the same place, you'd end up with the tilted field.

If you're curious about a particular antenna, you can download the free EZNEC demo from http://eznec.com. In the main window in the Plot menu, you can select "2D Fields to Plot", then "Vert, Horiz, Total". Then, EZNEC will show you the vertical and horizontal components separately in the 2D plot. You'll learn some interesting things, such as the fact that the radiation from a dipole is purely horizontal broadside to the antenna, purely verical from the ends, and a combination of the two in every other direction.

Roy Lewallen, W7EL

Bill M wrote:
> Larry Higgins wrote:
>
>>Larry, with your feedpoint at the point you describe, the polarization is
>>mainly vertical but partly horizontal.
>
>
> I need some explanation help here. How can the polarization be partly
> vertical and partly horizontal?
> I can visualize circular, horizontal, vertical and all points in between
> but not a mix.
> Can someone explain this in simple terms for me?
>
> -Bill

2530. Re: Looking for antenna suggestions for unusual location

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 20:20:19 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD55703.3309684E@cwis.net>
Source record: 131269

Rick,
The first thing is to always take the manufactuor's claims
with a large dose of the salt of your choice. Having said that,
there are a few other things to remember.
Any antenna works 'better' with a good ground under it,
verticals,
horizontally polarized, what ever. Even the so-called 'no-ground'
verticals.
Your motor home should be grounded no matter if you use it for
part of your antenna system or not. That's just common sense for
safety. If yours is like most motor homes, the metal 'skin' isn't
necessarily electrically connected. Motor home builders are more
conserned about weather proofing than electrical continuity, so
this
panel may not be connected electrically to that panel. If you put
a
vertical on top of your motor home, you might want to give some
thought to bonding the different metal sheets together. You might
also
think about running ground wires to the corners of your home, then
to
radials in/on the ground. It isn't very apparent by listening,
but they
do help. It doesn't decrease the coupling with ground
(capcitive), it
increases it, which is good.
You have a number of other choices besides a vertical antenna.
The
size of your lot is such that there ought to be some way of
putting up
a doublet of some kind. It might take a little 'creative'
thinking,
but I'll bet it can be done. It should be somewhere close to a
1/2 wave
for the lowest band you plan on using (if possible). Feeding it
with
ladder-line through a tuner should put you on almost all bands.
Maybe
not with the best signal in the world, but workable. Trees make
good
antenna supports. Deviating from the 'classic' design of the
various
kinds of antennas is allowed. In other words, what ever works,
works.

There really isn't a ~"best"~ antenna, but there are antennas that work well given the conditions you have. About the only way of telling
which is 'best' for your situation is to try it ans see.
I won't say what I think the best vertical is because first, I'm not
much of a vertical fan. And most can be made to work well with enough
effort. Any multiband vertical is going to have bandwidth limitations,
and if you can live within those limits, then you should do fine. In a
very broad generalization (which means there's always going to be exceptions),
is that the taller the vertical, the better, even with loading for the lower
bands.
Good luck.
'Doc

2531. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 20:23:32 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211151223.20ccd45d@posting.google.com>
Source record: 131418

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<ar2v90$lv7$2@knossos.btinternet.com>...
> The trick is to have two closely over-coupled antennas. Feed one,
> overcoupled to the other.
>
snip>
> Trouble is - by the over-riding laws of nature it will be only a one-band
> antenna.

You must have a different set up in mind Reg,I was able to make it
more than one band!
snip
>
> Theoretically the bandwidth can be doubled but with twice the loss. But
> nothing ever works according to theory anyway. So sadly let's forget the
> whole idea. ;o)
> ---
> Reg, G4FGQ

Yes, you are definitely thinking of something different,probably my
poor communication skills.My experiments did not follow your theory
line with respect to loss but letting the Chinese have at it is not so
bad.
Art

2532. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 20:27:00 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211151227.fa1cab9@posting.google.com>
Source record: 131271

Ask for him to share the design with us all.Seems like the laws of nature
what ever they may be has been thwarted again.
Art
Robert Spooner <rls19@psu.edu> wrote in message news:<3DD4FF86.4050603@psu.edu>...
> WA3FET, who teaches in the EE department here, has designed an 80-Meter
> dipole that uses two conductors in parallel with the dipole which is fed
> by a quarter-wave matching section. The antenna is a few feet wide and
> has a SWR of 1.5:1 or less accross the entire band.
>
> 73,
> Bob AD3K
>
> Roy Lewallen wrote:
> > The trick to increasing the bandwidth (other than introducing loss) is
> > to devise a network or feed system geometry that generates a reactance
> > that changes with frequency at about the same rate as the antenna does,
> > but in the opposite direction. It sounds like you've done this. A
> > doubled bandwidth would certainly be of interest to 75/80 operators at
> > least, so I imagine it's not in general use either because it's too much
> > of a mechanical nuisance, or nobody has heard of it. Have you published
> > it somewhere? Do you have any measurements showing the bandwidth
> > improvement?
> >
> > Roy Lewallen, W7EL
>
> --
> Robert L. Spooner
> Registered Professional Engineer
> Associate Research Engineer
> Intelligent Control Systems Department
>
> Applied Research Laboratory Phone: (814) 863-4120
> The Pennsylvania State University FAX: (814) 863-7841
> P. O. Box 30
> State College, PA 16804-0030 rls19@psu.edu

2533. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 20:27:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utam55i8a18h7d@corp.supernews.com>
Source record: 131272

Jim's design sounds like it might be based on a technique patented some years ago by Gary Breed, K9AY, number 5,489,914. (The patent is no longer in force due to lack of renewal, so the method is in the public domain.)

Roy Lewallen, W7EL

Robert Spooner wrote:
> WA3FET, who teaches in the EE department here, has designed an 80-Meter
> dipole that uses two conductors in parallel with the dipole which is fed
> by a quarter-wave matching section. The antenna is a few feet wide and
> has a SWR of 1.5:1 or less accross the entire band.
>
> 73,
> Bob AD3K

2534. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 20:39:19 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211151239.511257e4@posting.google.com>
Source record: 131273

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:<LPCcnQfvSb8tYkmgXTWc3A@comcast.com>...
> Art,
>
> This sounds like the dual of the Beta(?) match as used on some Hygain and
> M**2 VHF/UHF beams. Clearly mechanically superior, at least below 144 MHz.
> What feedpoint impedance do you come up with? Hygain and M**2 set theirs up
> for 200 ohms. Perhaps they do 200 ohms because a 4:1 narrow band balun is a
> lot easier to come up with than a 1:1. Do you have dimensions for a
> particular case?
>
> Tam/WB2TT
> "Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
> news:85ed38d.0211141118.72fca4d7@posting.google.com...

I would rather not getting into all the details and then leave
myself open to ridicule again. Obviously impedance levels would
vary depending on the coupled antenna but the concept can easily
be verified by adding such a feed method of any sort of dimensions
and then scanning the frequencies.
One time I stuck some duck tape on the center of a vertical upon
which I stuck some aluminium tape.Connected the alum tape delta
feed wise and just thrust the feed line without care within the
radiator. It worked just great on many bands but then antennas
want to work for you don't they?
Art

2535. Re: Looking for antenna suggestions for unusual location

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 20:40:17 UTC
From: David <Dave@lawlink.com>
Message-ID: <RYcB9.42592$QZ.7735@sccrnsc02>
Source record: 131274

Doc,
When you say ground your motor home--- if you are in a camp ground, would a copper braided line of sufficient length with 2 alligator clips, one clipped on to, say the bumper or frame, and the other possibly to the pad where the hookup is, suffice? How about the 3 prong plug of your hookup cord isn't that enough?
I have in the past used a Hygain 18AVQ vertical with no radials on 80 to 10 mtrs in a camp ground, ground mounted by just driving a pipe into the ground and putting it up with good success.

"'Doc" <w5lz@cwis.net> wrote in message news:3DD55703.3309684E@cwis.net...
>
>
> Rick,
> The first thing is to always take the manufactuor's claims
> with a large dose of the salt of your choice. Having said that,
> there are a few other things to remember.
> Any antenna works 'better' with a good ground under it,
> verticals,
> horizontally polarized, what ever. Even the so-called 'no-ground'
> verticals.
> Your motor home should be grounded no matter if you use it for
> part of your antenna system or not. That's just common sense for
> safety. If yours is like most motor homes, the metal 'skin' isn't
> necessarily electrically connected. Motor home builders are more
> conserned about weather proofing than electrical continuity, so
> this
> panel may not be connected electrically to that panel. If you put
> a
> vertical on top of your motor home, you might want to give some
> thought to bonding the different metal sheets together. You might
> also
> think about running ground wires to the corners of your home, then
> to
> radials in/on the ground. It isn't very apparent by listening,
> but they
> do help. It doesn't decrease the coupling with ground
> (capcitive), it
> increases it, which is good.
> You have a number of other choices besides a vertical antenna.
> The
> size of your lot is such that there ought to be some way of
> putting up
> a doublet of some kind. It might take a little 'creative'

> thinking,
> but I'll bet it can be done. It should be somewhere close to a
> 1/2 wave
> for the lowest band you plan on using (if possible). Feeding it
> with
> ladder-line through a tuner should put you on almost all bands.
> Maybe
> not with the best signal in the world, but workable. Trees make
> good
> antenna supports. Deviating from the 'classic' design of the
> various
> kinds of antennas is allowed. In other words, what ever works,
> works.
> There really isn't a ~"best"~ antenna, but there are antennas that
> work well given the conditions you have. About the only way of
> telling
> which is 'best' for your situation is to try it ans see.
> I won't say what I think the best vertical is because first,
> I'm not
> much of a vertical fan. And most can be made to work well with
> enough
> effort. Any multiband vertical is going to have bandwidth
> limitations,
> and if you can live within those limits, then you should do fine.
> In a
> very broad generalization (which means there's always going to be
> exceptions),
> is that the taller the vertical, the better, even with loading for
> the lower
> bands.
> Good luck.
> 'Doc

2536. Re: 40m Dipole Improvements.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 20:46:50 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <3pqcnSs_Y_hGwUigXTWcpA@comcast.com>
Source record: 131275

"nospam" <xxxmmxxx@xxxspiritone.com> wrote in message
news:3DD3D104.50037F67@xxxspiritone.com...
> I thought a 1/4 wave on 40 m was 16.7 ft?

That's 1/4 wave at 20 meters. It is twice that, but multiply by 2/3 for
cheap coax, and you get Roy's number.

Tam/WB2TT

2537. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 21:02:01 UTC
From: Bill M <exray@no>
Message-ID: <utanvtfh7vkr53@corp.supernews.com>
Source record: 131276

Roy Lewallen wrote:
>
>
> Describing polarization as having vertical and horizontal
> components is exactly analagous to describing a tilted line in terms of
> X and Y, or a location as being so far to the east and so far to the
> north of another. For example, if the E field is directed at an angle of
> 45 degrees relative to vertical or horizontal, it's said to have equal
> vertically and horizontally polarized components.

Got it, thanks.
-Bill

> >
> > I need some explanation help here. How can the polarization be partly
> > vertical and partly horizontal?
> > I can visualize circular, horizontal, vertical and all points in between
> > but not a mix.
> > Can someone explain this in simple terms for me?
> >
> > -Bill

2538. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 21:57:02 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ar3qjejuc0@208.206.142.109>
Source record: 131277

Roy Lewallen wrote:
>
> The trick to increasing the bandwidth (other than introducing loss) is
> to devise a network or feed system geometry that generates a reactance
> that changes with frequency at about the same rate as the antenna does,
> but in the opposite direction.

Would not a set of parallelled dipoles, one cut somewhere near the high end of the band, and the other cut for near the low end of the band (say on 75 meters) perform this function? If they were mounted on nearly the same plane but far enough separated that they don't directly interact the directivity and pattern shouldn't change much.
Seems the main problem would be exactly where (what frequencies) to cut them for so that they provided the correct amount of opposite reactance across most of the band.

This scheme was explored in Ham Radio mag in the early 80's but not many details were forthcoming. What's your opinion, Roy?

Dick

2539. Re: Autek or MFJ ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 21:57:23 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD56DC3.FD53FC45@ieee.org>
Source record: 131278

Reg Edwards wrote:
> Here in the UK I have had both for several years. They are expensive enough
> to make the average Ham stop and fhink.

Reg, could you post a picture of you fhinking on your web page
so we colonists will know what that means? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2540. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 22:06:20 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD56FDC.5E8E070@ieee.org>
Source record: 131279

Art Unwin KB9MZ wrote:
> You must have a different set up in mind Reg,I was able to make it
> more than one band!

I had a two band quad beam in AZ that had a driven element resonant
on 16Mhz with a reflector for 17m and a director for 20m. It output
its signal in the opposite direction from what a visual inspection
might indicate.
--
cheers, CAM http://www.qsl.net/w5dxp

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-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2541. Re: 40m Dipole Improvements.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 22:09:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utas51h0u9ms46@corp.supernews.com>
Source record: 131283

Egad. No, I wasn't speaking of coax. The issue came up -- I assumed -- because I said I couldn't figure out how crossed 40 meter dipoles would fit on a 100 X 20 foot lot (with a possible additional 30 feet somewhere). It has nothing to do with coax. Rather than giving nospam a fish by telling her how long a 1/4 wave was on 40 meters, I tried to teach her to fish by telling her how to calculate it, roughly, using approximations and simple arithmetic.

I see that my fishing lesson was a complete failure. So, for those who didn't get it, I suggest looking it up. I'm sure that somewhere on the Internet you can find what a quarter wavelength is at 40 meters, without having to apply any thought or elementary arithmetic. But watch out for automobile and insurance salesmen -- you're their rightful prey.

Roy Lewallen, W7EL

Tarmo Tammaru wrote:
> "nospam" <xxxmmxxx@xxxspiritone.com> wrote in message
> news:3DD3D104.50037F67@xxxspiritone.com...
>
>>I thought a 1/4 wave on 40 m was 16.7 ft?
>
>
> That's 1/4 wave at 20 meters. It is twice that, but multiply by 2/3 for
> cheap coax, and you get Roy's number.
>
> Tam/WB2TT
>
>

2542. Re: 40m Dipole Improvements.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 22:09:46 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <KgeB9.106610$dn3.4660542@twister.southeast.rr.com>
Source record: 131280

Hi Dave,

It will work, but you'll lose any directivity, since the dipoles are pointing at all points on the compass. I've used the same idea with a CW and a Phone antenna for 40m. Fed with the same coax. Do you need a Balun? seems like an unnecessary part to me.

Good luck and good DX,

Bill, W4WNT

"M0DCM Dave" <m0dcm@blueyonder.co.uk> wrote in message news:dzJA9.4986$5Q5.2587@news-binary.blueyonder.co.uk...
> Hi There,
>
> I wonder if anyone can help?
>
> I'm trying to think of ways to improve on my 40m half wave dipole and have a
> couple of ideas.
>
> One idea is to put 2 40m half wave's together on the same balun so they fire
> at the same time, but one dipole would go East to West and the other would
> go North to South.
>
> I wonder if anyone has ever tried this, if so how good is it?
>
> So if anyone else has any more idea's for a 40m antenna let me know I would
> be interested.
>
> Oh by the way my garden is 100feet long by around 22.5feet wide, and I also
> have permission to use the bottom 30feet of the nextdoor neighbours garden!!
>
> Cheers.....
>
> M0DCM Dave
>
>

2543. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 22:11:14 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD57102.D96ADC1A@ieee.org>
Source record: 131281

Roy Lewallen wrote:
> You just don't have a clue what "dry winter" means here, do you?

The Weather Channel said you were going to have a dry winter and I
was going to have a wet winter. Are you saying that your dry winter
is wetter than my wet winter? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2544. Re: 40m antenna's....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 22:34:30 UTC
From: K4IA <K4ia@novacoxmail.com>
Message-ID: <WDeB9.7935$0U1.568949@news2.east.cox.net>
Source record: 131282

Take your inverted V and turn it into a top fed L. Make one half horizontal
and the other half vertical. You can think of it as an upside down vertical
or both a horizontal and vertical antenna. Either way you get low takeoff,
omni directional coverage. For an article on all band top fed L antennas
see http://www.cebik.com/ltv.html and http://www.cebik.com/gup/gup25.html
--
Radio K4IA
Craig "Buck"
Fredericksburg, Virginia USA

FISTS 6702 CC 788 Diamond 64
K1# 470 K2# 2460
"M0DCM Dave" <m0dcm@blueyonder.co.uk> wrote in message
news:rE8B9.19202$5Q5.11817@news-binary.blueyonder.co.uk...
> Hi There,
>
> I currently running an inverted V halfwave dipole on 40m, but I'm trying
to
> improve on it.
>
> My Idea on the improvement is to strap 2 40m inverted V's together and
both
> firing at the same time. I've been told that this works well.
>
> The question I would like to ask is, does anyone else know of anymore
> configurations I could try to improve on, on 40m. Loops are out of the
> question as I'm not a Loop fan!!
>
> Cheers for any help...
>
> M0DCM Dave
>
>

2545. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 23:13:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utavt1n6t95f2c@corp.supernews.com>
Source record: 131285

I didn't do a proper job of qualifying what I said. I was referring only to feedpoint matching methods. There are certainly other ways to broadband an antenna, such as using parallel or spread wires, either the same length to form a cage or cone of large effective diameter, or with slightly different lengths. The method Gary Breed came up with was to put another wire or wires parallel and very close to the dipole, but with no direct connection. This can be used to either increase the bandwidth or to add the capability to work other bands.

Of course, you know how I'd figure out how to cut the wires -- I'd use EZNEC. But then I'm highly prejudiced.

Roy Lewallen, W7EL

Dick Carroll wrote:
>
> Roy Lewallen wrote:
>
>>The trick to increasing the bandwidth (other than introducing loss) is
>>to devise a network or feed system geometry that generates a reactance
>>that changes with frequency at about the same rate as the antenna does,
>>but in the opposite direction.
>
>
>
> Would not a set of parallelled dipoles, one cut somewhere near the high
> end of the band, and the other cut for near the low end of the band (say
> on 75 meters) perform this function? If they were mounted on nearly the
> same plane but far enough separated that they don't directly interact
> the directivity and pattern shouldn't change much.
> Seems the main problem would be exactly where (what frequencies) to cut
> them for so that they provided the correct amount of opposite reactance
> across most of the band.
>
> This scheme was explored in Ham Radio mag in the early 80's but not
> many details were forthcoming. What's your opinion, Roy?
>
> Dick

2546. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 23:15:05 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211151515.393cfc8f@posting.google.com>
Source record: 131284

Richard Clark <kb7qhc@attbi.com> wrote in message
news:<dkgatus8ijocoqmb2n21qga1qndnou59qc@4ax.com>...
> On 15 Nov 2002 07:53:38 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
> wrote:
>
> >My main thoughts with such an antenna feed was that the
> >military had a need for a frequency agile radiator where
> >they could code messages with the use of high speed,
> >high frequency, multi hop messages to hinder interception
> >of same.
> >Sorry if I mislead anybody.
> > Art
>
> Hi Art,
>
> You may try actually giving credit to the real inventor of this rather
> than passing it off as one of your neglected masterpieces.
>
> Hedy Lamarr beat you to this by more than 60 years.
>
> 73's
> Richard Clark, KB7QHC

Richard, I am not a dishonest person regardles of how you paint me.
I have no idea of why you wish to inflict pain on me but what you do
will eventually only bring disrespect upon yourself.
Art

2547. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 23:17:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utb04kkvnjko09@corp.supernews.com>
Source record: 131286

I sense the first glimmerings of a clue.

Roy Lewallen, W7EL

OC_CAM's_Razor wrote:
> Roy Lewallen wrote:
>
>>You just don't have a clue what "dry winter" means here, do you?
>
>
> The Weather Channel said you were going to have a dry winter and I
> was going to have a wet winter. Are you saying that your dry winter
> is wetter than my wet winter? :-)

2548. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 23:31:19 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <ss0btus5335fmut32c3vi5j23549bpvvp7@4ax.com>
Source record: 131287

On Fri, 15 Nov 2002 15:13:35 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

|Of course, you know how I'd figure out how to cut the wires -- I'd use
|EZNEC. But then I'm highly prejudiced.

Wouldn't ELNEC be a better choice in this case?

Wes

2549. Re: Archer All Band Scanner Antenna 1 hr left

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-15 23:53:14 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <INfB9.17498$md7.1433204@news20.bellglobal.com>
Source record: 131288

OT...

"Salle" at calgary.shaw.ca mentioned...
> http://cgi.ebay.ca/ws/eBayISAPI.dll?ViewItem&item=800557195

Subject antenna sold for US$17.05 (approx. Cdn$26.85). Could have been picked up at a Radio Shack 'Clearance Sale' for about Cdn$5 anytime within the past year or two.

The Nixie Display Tubes (previous thread) that I had donated to a "Collector" in the early 1980s recently sold for US$32.05 ! I had bought them for maybe 0.25 each.

I am sooooo going to clean out my basement and attic this autumn ! Plenty of very nice antenna and other such 'junk'. Should be able to pay off my car at these sorts of e-bay prices.

Apologies for OT - I'm just flabbergasted at the e-bay prices. Good money for old rope.

2550. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 00:24:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utb429s3mj2ue6@corp.supernews.com>
Source record: 131289

No. EZNEC, with its NEC-2 calculating engine, is better at dealing with close spaced parallel wires than MININEC-based ELNEC. With ELNEC, you need a lot of segments for parallel wires, since the segment length shouldn't be more than about twice the wire spacing. (And with the original MININEC, you can't get decent results at all with close spaced parallel wires.) Much longer segments are tolerable with EZNEC. The only caution when using any NEC based program for close spaced parallel wires is that the segment junctions should be directly across from each other. This is easily assured by breaking the longer wire (if they're different lengths) into three wires, with the central one being aligned with the shorter wire, and having the same length and number of segments. That is, you begin with two identical parallel wires, then add wires to the ends of one of them as necessary. Variations of this method can be used depending on how the wires are aligned with each other.

Roy Lewallen, W7EL

Wes Stewart wrote:
> On Fri, 15 Nov 2002 15:13:35 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> |Of course, you know how I'd figure out how to cut the wires -- I'd use
> |EZNEC. But then I'm highly prejudiced.
>
> Wouldn't ELNEC be a better choice in this case?
>
> Wes

2551. Re: Looking for antenna suggestions for unusual location

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 01:11:47 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD59B53.C59F23F5@cwis.net>
Source record: 131290

David,
I don't know if the way you described would be
'enough', or not, but I don't see how it could hurt
anything. I was under the impression that the motor
home was sort of semi-permanently parked, or at least
in the one place for an extended time. If so, then
as long as you were careful of how you did it, I don't
see why anyone would object to laying out a few radial.
A 25 by 60 foot 'pad' is sort of large for the average
over-night camp site, isn't it?
As to the '18AVQ' vertical, I wish I had the one I
used to have 30 some years ago! I think I had one or
two short ground rods and the pipe it was mounted on.
It did very well with just that. Of course that was
during a 'cycle' when a wet noodle would work too!
'Doc

2552. Re: US Government: Re: Station transmitting numbers?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 01:12:49 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD59B91.7CDE04E7@cwis.net>
Source record: 131291

nospam,
Are you sure they haven't?
'Doc

2553. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 01:36:00 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ar47dvrao1@venus.btinternet.com>
Source record: 131292

Hi Art,

I added my pennyworth only from the subject heading. I have read very little of the thread and I have no idea of the construction of the antenna you propose or of what adjustments you suggest. And I still havn't. ;o)

So my square-one comments about double-humped bandpass circuits (see Terman et al) were unrelated to what you have in mind. I'm just an innocent bystander looking the other way caught up in the crossfire.

But from my previous experience of your writings there has to be something sensible and useful in what you are now saying but which I havn't read on this occasion.

I would have thought Eznec or one of its derivatives would have solved your problem of how to convince people that your ideas work or, of course, don't work. The only way to convince is to present some NUMBERS.

One or two of my own programs only serve to illustrate, on the most simple of antennas, how very insensitive bandwidth is to whatever means are attempted to broaden it.

Any small benefits accruing from broader bandwidth are mostly outweighed by the trouble and strife needed to obtain it.

What's more effective than 24 gauge nichrome antenna wire?

And why does everybody conveniently forget that the transmission line has just as much an effect on SYSTEM bandwidth as does the antenna? It adds hell of a lot of L and C but neglgible R. For the same reasons a tuner also sharpens bandwidth. If bandwidth is so important why don't you guys argue about these other system components.

Come on you Guru's, what are you waiting for?

Reg, G4FGQ

2554. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 02:06:42 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <bf9btugpd5t1omg9dgtm1jv6lq0d2bn3gh@4ax.com>
Source record: 131293

On Fri, 15 Nov 2002 16:24:38 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

|No. EZNEC, with its NEC-2 calculating engine, is better at dealing with
|close spaced parallel wires than MININEC-based ELNEC. With ELNEC, you
|need a lot of segments for parallel wires, since the segment length
|shouldn't be more than about twice the wire spacing. (And with the
|original MININEC, you can't get decent results at all with close spaced
|parallel wires.) Much longer segments are tolerable with EZNEC. The only
|caution when using any NEC based program for close spaced parallel wires
|is that the segment junctions should be directly across from each other.
|This is easily assured by breaking the longer wire (if they're different
|lengths) into three wires, with the central one being aligned with the
|shorter wire, and having the same length and number of segments. That
|is, you begin with two identical parallel wires, then add wires to the
|ends of one of them as necessary. Variations of this method can be used
|depending on how the wires are aligned with each other.
|
|Roy Lewallen, W7EL

Hmmm. At:

http://www.cebik.com/amod/amod56.html

LB sez:

"There are, then, antenna wire geometries for which MININEC is the
preferred modeling core, especially if that core has been adjusted to
overcome past known weaknesses. This is the case with Antenna Model,
although if VHF and upward frequencies are not used, ELNEC will handle
close-spaced wires quite well and if no close-spaced geometries are
involved, AO will handle VHF and UHF frequencies well. See column #50
for further specific comparisons among MININEC cores."

Elsewhere, he gives you credit for having a good close-spaced wire
correction.

I guess I need to some more indepth reading.

Wes

2555. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 02:28:06 UTC
From: "ohhhnooomr.bill" <ur@on.the.air.con>
Message-ID: <ar4ahb$g7e$1@news.chatlink.com>
Source record: 131294

After spending a great deal of time working on my BSEE and my MSEE, what I have learned about higher education is this, students are for proof reading manuscripts and working like dogs so the enlighten ones can get "Published". At the very least, they are around so the enlighten ones can look down upon their miserable stupid students and gloat about how they "helped invent" some piece of techology at Bell Labs or something important place during their glory days.

I have also learned from many hours of research that most "Published" works is just a rewording of the same old topics to appear to be original.

By the way great move to add some extra credibility by looking like an "seasoned" ham with the 1x3 call sign.....when you were actually first licensed sometime in the after 1969 as WB8EIY. I ought to know as my WB8 call was issued in 1969 and it is older than yours. I would bet you used to work at OSU's Electrosceince Lab.

3's to ya'll

The Wandering Weasal,

Well back to splitting atoms in my basement.

"John Passaneau" <jxp16@psu.edu> wrote in message
news:ar0bgo$10eo@r02n01.cac.psu.edu...
> Well Pete:
>
> I would have told you the same to your face, then the I would have
answered
> your question. You may notice I work for a university. One of the main
> points of higher education is to show you how to do your own research. If
> you had done some research, you would then be able to ask a question that
> has some usefulness. As, does it work as they claim, is there anyway to
make
> it work better, or will it do what I want it to do. Above all you would
have
> had the pleasure of discovering something for your self. The things that a
> person remembers best are those they worked for on their own. If you do it
> often enough you too can be a "know it all" like I am.
>
> 73
>
> --
> John Passaneau, W3JXP
> Physics Dept. Electronics Shop
> Penn State University

> 104 Davey Lab, University Park , Pa. 16802
> 814.863.4297, jxp16@psu.edu
>
>

2556. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 02:47:52 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211151847.496d746a@posting.google.com>
Source record: 131295

Richard Clark <kb7qhc@attbi.com> wrote in message
news:<dkgatus8ijocoqmb2n21qga1qndnou59qc@4ax.com>...
>
> Hi Art,
>
> You may try actually giving credit to the real inventor of this rather
> than passing it off as one of your neglected masterpieces.
>
> Hedy Lamarr beat you to this by more than 60 years.
>
> 73's
> Richard Clark, KB7QHC

Richard
I thought you would use that opportunity to harass me
as always. Well the idea was patented (not by Hedy Lamarr)
some years ago after all.It was under the heading of capacitive
coupling so anybody can look it up to see different examples
of its use. You will have to think of another angle to cause me pain
but I am sure that now you have exposed yourself for what you are.
Art KB9MZ......XG

2557. Re: Hardware

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 02:51:46 UTC
From: Gary Brown <gbrown@nc.rr.com>
Message-ID: <6piB9.61702$ku2.4409329@twister.southeast.rr.com>
Source record: 131296

http://www.bosunsupplies.com/ProductPadEyeUEyeBolts.cfm

73,
Gary

K4GPB

2558. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 03:33:44 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <f5ebtukk3rvnrnq8ub8q2tne9tj58rhm7p@4ax.com>
Source record: 131297

On Fri, 15 Nov 2002 15:17:38 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>I sense the first glimmerings of a clue.
>
>Roy Lewallen, W7EL
>
>OC_CAM's_Razor wrote:
>> Roy Lewallen wrote:
>>
>>>You just don't have a clue what "dry winter" means here, do you?
>>
>>
>> The Weather Channel said you were going to have a dry winter and I
>> was going to have a wet winter. Are you saying that your dry winter
>> is wetter than my wet winter? :-)

Hi Roy,

No. A glimmer of clue would be in the realization that our dry summer
is wetter than his wet winter. ;-)

73's
Richard Clark, KB7QHC

2559. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 03:41:31 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <0hfbtu0qnbqk79da05ge18khqs9jrpkems@4ax.com>
Source record: 131298

On Sat, 16 Nov 2002 01:36:00 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>Hi Art,
>
snip
>
>I would have thought Eznec or one of its derivatives would have solved your
>problem of how to convince people that your ideas work or, of course, don't
>work. The only way to convince is to present some NUMBERS.
>
snip
>
>Come on you Guru's, what are you waiting for?
>
>Reg, G4FGQ
>

Answer found in the question.

The question shouldabeen "Who's on first?"

73's
Richard Clark, KB7QHC

2560. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 04:15:28 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD5C660.86E6F97@ieee.org>
Source record: 131299

Richard Clark wrote:
> A glimmer of clue would be in the realization that our dry summer
> is wetter than his wet winter. ;-)

Better get your Ark ready. We just had 20 inches of rain in five days.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2561. Re: Rhombic for UHF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 04:18:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utbho175s07bb5@corp.supernews.com>
Source record: 131300

You're right, Richard. Guess it was only a glimmer of a proto-clue.

Roy Lewallen, W7EL

Richard Clark wrote:
> On Fri, 15 Nov 2002 15:17:38 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>I sense the first glimmerings of a clue.
>>
>>Roy Lewallen, W7EL
>>
>>OC_CAM's_Razor wrote:
>>
>>>Roy Lewallen wrote:
>>>
>>>
>>>>You just don't have a clue what "dry winter" means here, do you?
>>>
>>>
>>>The Weather Channel said you were going to have a dry winter and I
>>>was going to have a wet winter. Are you saying that your dry winter
>>>is wetter than my wet winter? :-)
>>
>
> Hi Roy,
>
> No. A glimmer of clue would be in the realization that our dry summer
> is wetter than his wet winter. ;-)
>
> 73's
> Richard Clark, KB7QHC

2562. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 08:31:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utc0iu8v34lf87@corp.supernews.com>
Source record: 131301

The page you refer to illustrates how MININEC can produce better results when close spaced parallel wires have very different diameters, and I agree with LB's findings. (I haven't done a rigorous analysis, but suspect that the problem lies with the connection between them, and that NEC-2 would do fine if the wires aren't connected, as in Gary Breed's scheme.) For wires of similar diameter, however, NEC-2 based programs will give at least as good results with fewer segments than MININEC based programs.

The original MININEC code would give wildly bad answers if wires were even moderately close together. I fixed this in ELNEC, but ELNEC still needs segments to be no longer than about twice the wire spacing (actually, you can usually push it to about two and a half times). I think this is pretty fundamental to MININEC, but maybe other developers have found a way to improve on it. NEC-2 tolerates much longer segments for parallel wires.

Roy Lewallen, W7EL

Wes Stewart wrote:
> On Fri, 15 Nov 2002 16:24:38 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> |No. EZNEC, with its NEC-2 calculating engine, is better at dealing with
> |close spaced parallel wires than MININEC-based ELNEC. With ELNEC, you
> |need a lot of segments for parallel wires, since the segment length
> |shouldn't be more than about twice the wire spacing. (And with the
> |original MININEC, you can't get decent results at all with close spaced
> |parallel wires.) Much longer segments are tolerable with EZNEC. The only
> |caution when using any NEC based program for close spaced parallel wires
> |is that the segment junctions should be directly across from each other.
> |This is easily assured by breaking the longer wire (if they're different
> |lengths) into three wires, with the central one being aligned with the
> |shorter wire, and having the same length and number of segments. That
> |is, you begin with two identical parallel wires, then add wires to the
> |ends of one of them as necessary. Variations of this method can be used
> |depending on how the wires are aligned with each other.
> |
> |Roy Lewallen, W7EL
>
> Hmmm. At:
>
> http://www.cebik.com/amod/amod56.html
>
> LB sez:

>
> "There are, then, antenna wire geometries for which MININEC is the
> preferred modeling core, especially if that core has been adjusted to
> overcome past known weaknesses. This is the case with Antenna Model,
> although if VHF and upward frequencies are not used, ELNEC will handle
> close-spaced wires quite well and if no close-spaced geometries are
> involved, AO will handle VHF and UHF frequencies well. See column #50
> for further specific comparisons among MININEC cores."
>
>
> Elsewhere, he gives you credit for having a good close-spaced wire
> correction.
>
> I guess I need to some more indepth reading.
>
> Wes
>
>

2563. Re: Multiband verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 10:08:50 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0211160208.c832f76@posting.google.com>
Source record: 131302
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

"G4IRN" <mycall@qsl.net> wrote in message
news:<VVVA9.5302$Mi4.91053@newsfep3-gui.server.ntli.net>...
> I recommend Butternut verticals. With my ground mounted HF2V, in the last
> few weeks I have worked ZL7, JT1, VK6, 3X, 9L all on 80mtrs from my postage
> stamp garden. See www.bencher.com and check out the articles. www.eham.net
> for product reviews.
>
>
>

Hi,

Excepting your respect, this argument is not sufficient to say your
antenna is better than another.
With the propagation conditions that are decreasing due to the lower
solar activity after the 2000-2002 peak, it is quite normal you
experiment better results on the lower bands for a few months or so.

My nearest friend uses a Cushcraft R7000 placed 5m high at the end of
his garden 100m away from all buildings and has confirmed over 280
DXCC since 1999, whatever the band.
However last week we both were unable to work R1ANC. We heard him but
he cannot heard us located 15000 km away on 15m (we are in south ON).
If it was on 40m beleive me my friend 'd have his QSO confirmed !

Personally I am well unable to make the difference between
performances of a Cuschraft, Butternut or High-gain models, and this
is therefore I use a dipole !

Thierry
http://www.astrosurf.com/lombry

>
>
> "Jamesv" <jamesv@premierdisco.co.uk> wrote in message
> news:3dd3960b_3@news1.vip.uk.com...
> > I am preparing to purchase a new multiband vertical for hf.
> >
> > Before I do so, I would like to make good comparisoins to help me make the
> > correct choice.
> >
> > Does anyone have any idea where I can get technical and operational
> antenna
> > comparisons on the net? Also any good, well priced supplier contacts would
> > be appreciated.

> >
> > Thanks
> >
> > JV
> >
> >

2564. Re: Hamstick Dipole? Anybody using one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 10:16:12 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0211160216.299d07b4@posting.google.com>
Source record: 131303

Mike M <nospam@nospam.com> wrote in message
news:<1C8C962F29D5692E.D4778B30A8CF64F7.D4B986CA71D5952E@lp.airnews.net>...
> Looks like the Dipole strung out under the eaves of the house may be out.
> Too much hassle and risk of ladder accidents. Can't affort a vertical
> or one of the Force 12's vertical dipoles at this time either. I've been
> reading about Hamsticks used in the dipole config. with their dipole
> mounting kit. One guy on HAMNET says he uses dual 40's with an antenna
> tuner with great results on all bands. Boy the price on these sure looks
> right.
>
> Is anyone on here using one?

Hi,

There is also this alternative, the buddipole, a versatile dipole you
can setup like a vertical thanks to its rotatable axis.
Good construction, accessible price, etc
Check on http://www.buddipole.com/

There are several ant. of this kinf on the market.
See maybe on www.eham.net too.

Thierry
http://www.astrosurf.com/lombry

2565. Best Indoor FM Antenna ???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 10:47:12 UTC
From: selcuk7@yahoo.com
Message-ID: <76a0e90b.0211160247.1301f778@posting.google.com>
Source record: 131304

Hi all,

I am a newbie and would like to know which homebrew indoor FM antenna would perform best for my hi-fi system with 75 ohm outlets. I live in an apartment covered with high buildings.

Thanks for any information

2566. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 12:53:32 UTC
From: richardharrison@webtv.net
Message-ID: <20758-3DD63FCC-5@storefull-2311.public.lawson.webtv.net>
Source record: 131305

Larry, N3CCW wrote:
"Can you elaborate?"

Displacement current happens in an insulator. Electrons don`t ordinarily migrate in high volume through insulators or free space as they might through a conductor. In a void or in an insulator, like charges repel and unlike charges attract. If there is a complete circuit containing a capacitor, current can circulate via displacement current across the conduction gap of the capacitor.

Antennas have limited lengths but current flows through them because displacement current provides a place for current to continue despite a wire which ends.

Maxwell speculated displacement current produces a magnetic field the same as a conduction current does. He has been proved right. This is the secret of radiation, as Maxwell suspected.

A changing potential difference produces a changing electric field, and a changing electric field produces a changing magnetic field, which produces a changing electric field, etc., ad infinitum.

Best regards, Richard Harrison, KB5WZI

2567. Re: Best Indoor FM Antenna ???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 13:43:24 UTC
From: k9sqg@aol.com
Message-ID: <20021116084324.03468.00000263@mb-ma.aol.com>
Source record: 131306

Without further clarification, it is difficult to make a recommendation. Are you interested in receiving all local stations? Select stations in fringe regions? What is the volume of space available? What metallic items are close by? Etc. Etc.

Best of luck.

Evan

2568. Re: Hamstick Dipole? Anybody using one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 13:45:55 UTC
From: k9sqg@aol.com
Message-ID: <20021116084555.03468.00000264@mb-ma.aol.com>
Source record: 131307

With the double Hamstick dipole you will be unable to get the SWR down to a manageable level for the greater part of any band (i.e. you will have very limited bandwidth). The performance will be poorer than a mobile antenna on a car in most instances. But, it is an antenna, and it will radiate a small portion of the power. An antenna tuner is mandatory.

Best of luck and 73s,

Evan

2569. Re: Looking for antenna suggestions for unusual location

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 15:27:48 UTC
From: Rick Adams <ke8hh@qsl.net>
Message-ID: <67A854AF9826044E.9BCE259EA251B36D.150C757CEA51E651@lp.airnews.net>
Source record: 131308

On Fri, 15 Nov 2002 14:20:19 -0600, 'Doc <w5lz@cwis.net> wrote:

> Your motor home should be grounded no matter if you use it for
>part of your antenna system or not. That's just common sense for
>safety. If yours is like most motor homes, the metal 'skin' isn't
>necessarily electrically connected. Motor home builders are more
>conserned about weather proofing than electrical continuity, so
>this panel may not be connected electrically to that panel. If
>you put a vertical on top of your motor home, you might want to
>give some thought to bonding the different metal sheets together.

Right now, the only grounding for the rv (it's a park model
trailer--essentially a small mobile home with 1-1/2 floors--not a
motor home, btw) is through the electrical hookup (50A grounded
circuit). I _do_ intend to drive a standard copper grounding rod into
the ground and fasten it to one of the tie downs provided with the rv,
which are connected directly to the chassis (and are currently not
connected to the ground as the rv is not on a concrete slab).

Incidently, the skin _is_ electrically connected on our rv--at
least to the point that there is no significant resistance measurable
between any two points on the rv (I connected wires to various points
on the rv and measured for resistance).

> You might also think about running ground wires to the corners
>of your home, then to radials in/on the ground. It isn't very
>apparent by listening, but they do help. It doesn't decrease
>the coupling with ground (capcitive), it increases it, which is
>good.

Can't do it (I wish I could, laying out radials would solve a
lot of antenna problems). With the exception of a single grounding
post or antenna mount of small diameter, nothing is permitted to be
buried by the resort rules--and neither can the radial wires be left
on the surface of the site. That's one of the reasons I've been
looking for no-radial options.

> You have a number of other choices besides a vertical antenna.

I've been looking at a few--in particular, either the
Butternut HF5B "Butterfly Beam" or the Cushcraft MA5B beam. Both are
small enough to mount directly over the center of my roof (where they
would clear the DirecWay dish) on relatively short tripods, and their
turning radius would keep them over my lot. Using one of those in
conjunction with a vertical or dipole for the bands it doesn't cover
would, obviously, be a step up from a vertical--assuming I don't run

into the same ground plane problem there, of course.

I've also looked at a number of pre-assembled dipoles--including the Yaesu YA-30 which is only 83' long and claims to be pre-tuned for all bands (1.8-30 MHz) with a max swr of 1.9:1. Obviously, the antenna would need to be used in some form of "V" configuration, since I don't have 83' of space in any direction (including diagonally) on my lot. Because of the layout of the lot, an inverted "v" would be unworkable (the ends would have to go to the rv front & the center to a tree behind it--which would be far too narrow a spread for the "v"--in addition to which, the roof of the rv is peaked and that would put them at the low points), and I've never seen any information on a standard (non-inverted) "v" to determine if it could work that way with the center at the top of the roof and the legs connected to two trees behind the rv.

Adding to the already frustrating situation is the fact that, I'm partially handicapped (knee and respiration) and thus heavy roof work isn't an option--nor is having other local hams help out, since the resort (for liability reasons) won't let anyone not a member do any work on a site unless he or she is a licensed contractor doing the work commercially (and thus insured by his/her own firm against injury). I can get away with having my 18 year old son help (family membership), but he knows nothing about ham radio (he's a computer hobbyist <sigh>) or about installing antennas and will have to be "stepped" through the entire procedure.

>The size of your lot is such that there ought to be some way of
>putting up a doublet of some kind. It might take a little 'creative'
>thinking, but I'll bet it can be done. It should be somewhere close
>to a 1/2 wave for the lowest band you plan on using (if possible).

Let's see--1/2 wave at 160m . . . Ouch! :-(

>Feeding it with ladder-line through a tuner should put you on almost
>all bands. Maybe not with the best signal in the world, but workable.

Tuners I'm used to. At my former location, I used an 18' flagpole for a vertical (tuning it--believe it or not--with the built-in tuner in my FT-920) and managed to hit both WAS and DXCC using the absurd setup! Unfortunately, I can't do that here as it would require too much digging (I set the flagpole in an insulated base in 4' of concrete with the ground side of the coax connected to a 4' copper grounding post mounted directly beside it) and would be far too close to the rv (and would thus be affected by the metal siding).

>Trees make good antenna supports. Deviating from the 'classic'
>design of the various kinds of antennas is allowed. In other words,
>what ever works, works.

Here, unfortunately, is where I'm the weakest. I have a pretty decent understanding of circuit design and both digital and analog electronics, but when it comes to propagation & antennas, my knowledge

is pretty much limited to the areas I studied for my Extra (and, before someone points out the obvious, yes I know that's insufficient--but few of us are "balanced" in all areas of communications). Beyond the basics, I'm not familiar enough with antenna design to know how much "deviation" _can_ be used before the installation stops being a tuned antenna and becomes a random wire instead! In particular, I'm weak in areas dealing with ground coupling, antenna shape (i.e., is an upright "v" as effective as an inverted-"v"), or the effects of such objects as a metal clad (wooden roofed) rv in close proximity to an antenna system. Obviously, I can do the math to determine the appropriate length for an antenna, etc., but as far as actually determining the best type of antenna--or how to install it under these circumstances--I rather rapidly reach my own limits of knowledge.

Incidently, you mention in another response that the size lot I'm on is large for a campground. It is for an "overnight" type campground--but it's relatively narrow for a semi-residental resort such as this one. Several of the lots here are 10' wider (which would make antenna selection MUCH easier--but given their location wouldn't be worth the trade-off). Our rv is a 40'x12' park model with two bedrooms upstairs in the lofts and one downstairs--the largest an rv can be built (in Michigan--Florida allows a few feet more) and still be classified as an rv instead of a mobile home, and thus it occupies a good portion of that lot (we have about 10' from our front door to the edge of the lot and about 15' behind us). Effectively, anything we put up has to either mount to the rv itself or from the rv to the trees 10' behind the rv--there aren't a lot of other options, including ground mounting a vertical, given the layout of the lot.

Thanks for the help & suggestions--if you, or anyone else, happen to be familiar with any of the alternatives I mentioned above, feedback would definitely be appreciated.

73 de KE8HH, Rick

--

Rick Adams--KE8HH
adamsr@NOSPAM.voyager.net

"... and the only measure of your worth and your deeds
will be the love you leave behind when you're gone."

Fred Small, J.D., "Everything Possible"

2570. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 15:54:58 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD66A52.91BA6DC9@ieee.org>
Source record: 131309

Richard Harrison wrote:
> A changing potential difference produces a changing electric field, and
> a changing electric field produces a changing magnetic field, which
> produces a changing electric field, etc., ad infinitum.

Actually, until sometime after the Big Bang, the universe was opaque. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2571. Re: Multiband verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 15:58:30 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <rapctushljt554e3cchm1kl6hu7vgj2g1u@4ax.com>
Source record: 131311
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

On 16 Nov 2002 02:08:50 -0800, lombryt@hotmail.com (Thierry) wrote:

|"G4IRN" <mycall@qsl.net> wrote in message
news:<VVVA9.5302$Mi4.91053@newsfep3-gui.server.ntli.net>...
|> I recommend Butternut verticals. With my ground mounted HF2V, in the last
|> few weeks I have worked ZL7, JT1, VK6, 3X, 9L all on 80mtrs from my postage
|> stamp garden. See www.bencher.com and check out the articles. www.eham.net
|> for product reviews.
|
|Excepting your respect, this argument is not sufficient to say your
|antenna is better than another.

True, but then neither is yours which follows.

|With the propagation conditions that are decreasing due to the lower
|solar activity after the 2000-2002 peak, it is quite normal you
|experiment better results on the lower bands for a few months or so.
|
|My nearest friend uses a Cushcraft R7000 placed 5m high at the end of
|his garden 100m away from all buildings and has confirmed over 280
|DXCC since 1999, whatever the band.
|However last week we both were unable to work R1ANC. We heard him but
|he cannot heard us located 15000 km away on 15m (we are in south ON).
|If it was on 40m beleive me my friend 'd have his QSO confirmed !

(I must ask: when you post to rec.radio.amateur.dx you add, "ONL5183
(in LX)" as your 'call' sign. So how where *both* of you unable to
work anybody?)

|
|Personally I am well unable to make the difference between
|performances of a Cuschraft, Butternut or High-gain models, and this
|is therefore I use a dipole !

Good for you. But the topic is "Multiband verticals" and the original
author was looking for comparison of---well---multiband verticals.
How often have you transmitted on the three you compared? What were
the relative SWR bandwidths? Any mechanical superiority of one over
another?

Wes N7WS

2572. Re: Hamstick Dipole? Anybody using one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 15:58:42 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD66B32.52F49377@ieee.org>
Source record: 131310

K9SQG wrote:
>
> With the double Hamstick dipole you will be unable to get the SWR down to a
> manageable level for the greater part of any band (i.e. you will have very
> limited bandwidth). The performance will be poorer than a mobile antenna on a
> car in most instances. But, it is an antenna, and it will radiate a small
> portion of the power. An antenna tuner is mandatory.

What you say it true for 75m. However, a double hamstick dipole makes a
pretty good antenna for frequencies above 14 MHz. The fact that it is
rotatable gives it the advantage over a full size fixed dipole in some
directions.
--
cheers, CAM http://www.qsl.net/w5dxp

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2573. Re: Looking for antenna suggestions for unusual location

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 16:40:15 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <rnrctugm0ljq9adikol8jomgovb6tj0p5i@4ax.com>
Source record: 131312

On Fri, 15 Nov 2002 11:05:15 -0500, Rick Adams <ke8hh@qsl.net> wrote:

[snip]
|
| Obviously, a vertical is probably our most practical solution
|(unless someone can suggest an alternative, given the space
|constraints--we _can_ anchor the end(s) of a wire antenna to the trees
|behind us, but only if we keep the anchors high and within the 25'
|width limitation). Our primary questions concern the use of radials
|and grounding. With respect to radials, I read on the Butternut site
|that mounting in the center of the top of a mobile home obviates their
|need and provides an extremely efficient ground plane, in much the
|same way that mounting in the center of the roof of a car does so for
|a mobile installation. I've been unable to verify this claim in any of
|the (limited) resource works I have on hand--can anyone tell me if
|it's accurate and, if so, whether it would therefore allow for the
|effective use of an antenna such as the Butternut HF-9V coupled to a
|TBR-160S 160m add-on (which isn't recommended for use with the
|Butternut CBK kit--used to substitute for an efficient ground plane).
|
| Right now my primary concerns are: (1) an efficient antenna
|system that will provide coverage of as wide a range of bands as
|possible (I'm using an FT-920 which covers 6m-160m) with a reasonably
|good swr (i.e., one that can be tuned easily with either the built-in
|tuner in the FT-920 or, if necessary, with my external MFJ-969 tuner);
|(2) efficient use of space (the antenna _cannot_ extend beyond the
|limits of the lot size, and the less space it occupies the better);
|(3) reasonable wind resistance (the antenna will be exposed directly
|to winds from the SW, S, NW, & N but sheltered from the East) without
|extensive guying (space considerations); (4) reasonable cost and ease
|of installation (I'm a semi-retired college professor with the
|climbing ability of the average horse and don't expect to have any
|skilled assistance with the installation); (5) dependability.

You will not find an "efficient" system that works all of the bands.
The best you can do is a workable system.
|
| My primary questions:
|
| 1. How accurate are the statements concerning the efficiency
|of a mobile home/rv as a part of the ground plane?

Probably manufacturer's hyperbole.
|
| 2. Should the rv itself be grounded directly (it isn't

|currently) or will this defeat the effectiveness of the capacitive
|coupling to the ground itself?

Regardless of what antenna you put up the RV should be grounded. From the other posts in the thread I believe it is as far as safety goes. You mention elsewhere the tie down hard points on the RV. Aren't these in use with ground anchors and straps now?
|
| 3. What kind of antenna would work the best in this
|circumstance--other than a vertical are there other, potentially
|better, solutions?

A vertical on the roof would probably do okay on say 10-12-15-17-20 where it could be nearly full-size. As more loading is used to resonate it on the lower frequencies, it will become less efficient and the BW will narrow. OTOH, on 10-12-15-17-20 and maybe 40 you could have a full or nearly full-sized dipole that would fit in you space. The horizontal polarization on those bands would be preferred.
|
| 4. If a vertical is selected, what vertical would you
|recommend and--if one is available for it--would it be likely to work
|with a 160m kit?

I have no experience with the commercial verticals. As a practical matter, I believe that you should forget that the 160 band exists.
|

You don't say how high the trees are. It seems that the park rules would permit some type of mast (they allow the vertical right?). What if you ground mounted a tv style push-up mast at the end of the rv opposite the trees and ran a dipole from there to the trees. You could make the wire longer that the distance between supports and dangle the end down if necessary.

Feed this with ladderline if you prefer or build some traps. Despite what the ladderline proponents say, if the wire is shorter than about 3/8 wavelength you will have a problem, so figure this into you available length situation.

Traps will allow resonance on several bands, albeit with restricted BW and some loss, but what the heck any vertical you put up has the same limitations.

Wes N7WS

2574. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 17:01:48 UTC
From: richardharrison@webtv.net
Message-ID: <28295-3DD679FC-16@storefull-2312.public.lawson.webtv.net>
Source record: 131313

Reg, G4FGQ wrote:
"So sadly let`s forget the whole idea. :o)"

Broadband antennas are possible. Some practical examples are used for television.

Search for "bow tie antennas". One interesting response is:
http://sites.uol.com.br/helyr/secoes/fractal/sec_fractal_ant.html

A Brasilian site but it has minimal Portuguese.

Best regards, Richard Harrison, KB5WZI

2575. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 17:06:23 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ar5tuf$6d1$0@208.206.142.66>
Source record: 131315

Roy Lewallen wrote:
>
The method Gary Breed came up with was to
> put another wire or wires parallel and very close to the dipole, but
> with no direct connection. This can be used to either increase the
> bandwidth or to add the capability to work other bands.
>

I read his article in RF Design magazine years ago and I think I still have it somewhere (I subscribed until I retired). I believe paralleling dipoles cut for each end of a band to provide the broadbanding compensating network for each other might work a bit differently. I'm sure you could clearly explain the comparison while I'd stumble around trying. IIRC His scheme was a matter of induced currents onto the free resonant wire from the driven wire.

> Of course, you know how I'd figure out how to cut the wires -- I'd use
> EZNEC. But then I'm highly prejudiced.

Here's where I would enjoy antenna modeling. I suppose I should get started and do some of it if I'm ever going to.

I think many if not most of us hams have successfully used antennas that we really wouldn't want to know too much about. :-) Might be a bit difficult to explain why they seemed to work so well!

Dick

2576. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 17:16:21 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <anuctu42hai7ve2t7hhp2houcfemo1293f@4ax.com>
Source record: 131314

On Sat, 16 Nov 2002 01:36:00 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

[snip]
|
|What's more effective than 24 gauge nichrome antenna wire?

Wet ladder line?
|
|And why does everybody conveniently forget that the transmission line has
|just as much an effect on SYSTEM bandwidth as does the antenna? It adds
|hell of a lot of L and C but neglgible R. For the same reasons a tuner also
|sharpens bandwidth. If bandwidth is so important why don't you guys argue
|about these other system components.
|
|Come on you Guru's, what are you waiting for?

Not claiming guru status, but I've considered and written about the
effects of transmission lines and tuners on bandwidth.

2577. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 17:38:04 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <2hvctusblm8j6s9e6htsmj544tgd72ok4i@4ax.com>
Source record: 131316

On 16 Nov 2002 08:17:29 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

[snip]
|
|Reg,
|What you are asking for will never happen. We have now evolved into a
|group
|of followers of the books, experimenting has gone, 'it's not my job'
|is so convenient. On my multiband antenna no one built it but would
|rather pay big bucks for a commercial antenna that cannot compare with
|respect to gain and less moving parts and that is putting aside how
|inexpensive it is.It is not in a book even tho all the corroberating
|facts are. If you said, use a vacuum tume (valve)delay tube where
|possible instead of paying big bucks for a standard high voltage relay
|they would decline because it never was written in Q.S.T.
|Even with respect to capacitive coupling they are ruled by
|conventional
|writings as to how a capacitor works and thus are stymied in following
|new aproaches.For capacitive coupling I am of the opinion that the
|exact transition of energy varies, in this case with frequency. This
|ofcourse will never see the light of day until a experiment shows
|traces of minor flash over progress along a plate as frequency changes
|and it is written in a book. For extra bandwidth which appears to be
|of interest not one came forward and said they had tried it
|so the aproach will disappear. I do not blame the amateurs that make
|this such a wonderful hobby, I blame the professionals (experts) who
|are so quick to douse the flame of something new, fresh thinking, out
|of the box thinking,
|new idea proposals e.t.c. because their minds are so rigid.
|This thread will last a few days only and all will then search for
|'comedy'.
|Nothing personal to those on the group but experimenting is dead on
|this side of the pond Reg, we now have so much more money that it is
|not worth the time
|to experiment or innovate, we just buy it and use it, the man with the
|most toys wins. Now I am accused of STEALING an idea. During my
|working years I always tried to put others on patents even to the tune
|of withdrawing totally as a contributor or becomming known as "et al".
|If one didn't do that everybody would stake a claim and make life
|miserable. Now when sharing thoughts with my fellow hams I am now not
|only being accused of being stupid I am now being labelled as a THIEF
|of ideas by so called experts. Lets face it, being a ham is all about
|talking now.

|Best regards to my fellow limeys
|Art Unwin KB9MZ.....XG
|I know I am feeling a bit down but I will be better tomorrow.

Art, I certainly hope so. You are being quite unfair in your critique of the "state-of-the-amateur-art."

You accuse others of knee-jerk responses that immediately dismiss new ideas, and "follow the books", but for the most part, the "books" have been vetted repeatedly and are our "best guess" at how things work.

Believe me, I have tried on several occasions to model designs that you have offered. While it is likely that I didn't understand what you were saying and the models didn't represent what you had in mind, I don't believe it is my shortcoming. I have tried with your "loop-fed" (my description) dipole and with the configuration you have proposed in this thread (Witness my query about which is better, mininec or nec-2 for modeling close-spaced wires) and for the life of me, I cannot achieve results as you describe.

As I have offered to do in the past, if you can provide a succinct description of your "Off-center-capacitive-coupled-multi-band-feed system", I will gladly model it and provide the results to the group for critique of both my modeling technique and your design.

Wes N7WS

2578. Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 17:39:30 UTC
From: jder8745@aol.com
Message-ID: <20021116123930.21327.00000039@mb-cl.aol.com>
Source record: 131317

Howdy, Hammers

The whole idea of forward and reflected power in the steady state is only a mathematical way to look at things.

If the line is lossless, ALL the power going into the sending (transmitter) end of the transmission line goes to the load (antenna) end and is partially radiated and partially converted to heat by losses in the antenna.

By playing like there is a forward component and a reflected component it makes the arithmetic easier.

It's like the rotating magnetic fields in a single phase motor. There is only a polarity reversing field which does not rotate but this can be thought of as two fields rotating in opposite directions. The motor will not start by itself, but if you give it a spin in EITHER direction it will continue to run in that direction.

The only reason I am mentioning the motor s that it shows how we often use mathematical equivalences for the real world happenings to make the arithmetic easier.

And that’s all I have to say about that!

73 de Jack, K9CUN

2579. Re: Need most efficient 160 m antenna design for small lot

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 17:53:38 UTC
From: Andy Blackburn <andyblackburn3@comcast.net>
Message-ID: <lJCdnWQOpcxuGEugXTWcoA@comcast.com>
Source record: 131318

Thanks for everyones input......including those that did not post to this newsgroup.
I will try several of the ideas presented to me and see which works the best.

73,

Andy

2580. Radiation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 18:18:06 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211161018.57a5ed40@posting.google.com>
Source record: 131169

When one passes a radiator thru a long aluminum
tube is one wasting energy or conserving energy?
Put another way, does the tubing create a transmition
line situation or does it just disperse radiation energy?
Art

2581. QRP Homebrewers #7 article needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 18:46:33 UTC
From: canyon <kloc@commspeed.net>
Message-ID: <1037472987.622616@news.commspeed.net>
Source record: 131170

Guys,

I'm looking for a scan or hard copy of the "Rainbow tuner lives again"
article from QRP Homebrewer #7. Would greatly appreciate a copy.

Thank you,

WA4MNT 73's

2582. Re: Looking for antenna suggestions for unusual location

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 18:56:50 UTC
From: Pappy@USA.net
Message-ID: <3DD694F2.BBF6A55A@USA.net>
Source record: 131171

Consider the "GAP Titan DX". Easy to assemble, covers 80 thru 10 meters and NO tuning.

I put one up on a 5' pipe in my lawn and it works very well.

This antenna is available from AES, at least that is where I bought mine from.

Check out this antenna on the GAP web site.

Before I bought mine I checked out several and I feel I chose wisely for the price and no tuning required on assembly.

2583. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 19:07:03 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211161107.4d11d6ed@posting.google.com>
Source record: 131172

tdonaly@aol.com (Tdonaly) wrote in message
news:<20021113174734.02904.00004085@mb-dd.aol.com>...
> Pete wrote,
> >
> >Thank you, Scott, for your note.
> >
> >Mr. Bessler has me pegged, I suppose, as a LID. I must confess that when I
> >got my Advanced ticket I studied very hard (I even got my code speed up
> >above 20 wpm for the Extra test) and got the highest level license I could.
> >But then, I settled into enjoying ragchewing on the CW bands and have since
> >forgetten much of the theory I learned.
> >
> >I do my best to put out a clean signal and clear, solid copy code that I
> >feel I can be proud of. I am civil on the air to everyone I meet and,
> >therefore, I hope, a credit to our hobby. But, it's true that I haven't
> >devoted myself to the technical side of radio as much as I should since my
> >life has other endeavors which consume me.
> >
> >If that makes me a LID, well so be it. But before the Besslers of the world
> >try to drum me out of the hobby they might consider that after they have
> >thinned the ranks, commercial equipment would disappear for lack of a market
> >and amateur radio would become a political orphan. So, I'll muddle on.
> >
> >Pete
> >
> There's no earthly reason why any ham should be an expert on any
> particular commercial antenna.

True...A "hamstick" is a commercial trade name of an antenna, not the
real name. I've got a funny feeling if you would have asked him what a
"helically wound" short vertical was, he would have probably known.
I've never checked, but I've got a good hunch if you read the whole
ARRL antenna handbook from front to back, you would most likely not
see the word "hamstick" mentioned one time.

MK

2584. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 19:40:24 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD69F28.C873A613@ieee.org>
Source record: 131173

JDer8745 wrote:
> By playing like there is a forward component and a reflected component it makes
> the arithmetic easier.

Playing like there is a forward component and a reflected component
also causes ghosting in TV systems and echos in telephone lines. So
it seems that the more we play like reality, the closer we get to
reality.
--
cheers, CAM http://www.qsl.net/w5dxp

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2585. Re: Radiation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 19:44:38 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD6A026.4DE73BF6@ieee.org>
Source record: 131174

Art Unwin KB9MZ wrote:
> When one passes a radiator thru a long aluminum
> tube is one wasting energy or conserving energy?
> Put another way, does the tubing create a transmition
> line situation or does it just disperse radiation energy?

If the fields are completely confined inside the tube and if
a load exists, it will act like a transmission line. It is like
running 1/2WL of low loss coax between phased verticals.
--
cheers, CAM http://www.qsl.net/w5dxp

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2586. Re: Radiation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 20:01:45 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <f29dtu093qqbt1cr8f260daqcfpqhb3481@4ax.com>
Source record: 131175

On 16 Nov 2002 10:18:06 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>When one passes a radiator thru a long aluminum
>tube is one wasting energy

NO

>or conserving energy?

NO

>Put another way, does the tubing create a transmition
>line situation

NO

> or does it just disperse radiation energy?
>Art

YES

73's
Richard Clark, KB7QHC

2587. Re: Multiband verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 21:00:14 UTC
From: David <Dave@lawlink.com>
Message-ID: <ylyB9.56915$nB.4577@sccrnsc03>
Source record: 131176
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

I have a Butternut HF9V ground mounted, about 15 feet away from my split-level home, with 20 buried radials about 22 feet long, and I work the world. I notice no difference going barefoot or using my solid state Ameritron 600 watt kicker. I am very satisfied with my Butternut. Here in Springfield, Illinois.

"Wes Stewart" <n7ws@nowhere.com> wrote in message news:rapctushljt554e3cchm1kl6hu7vgj2g1u@4ax.com...
> On 16 Nov 2002 02:08:50 -0800, lombryt@hotmail.com (Thierry) wrote:
>
> |"G4IRN" <mycall@qsl.net> wrote in message news:<VVVA9.5302$Mi4.91053@newsfep3-gui.server.ntli.net>...
> |> I recommend Butternut verticals. With my ground mounted HF2V, in the last
> |> few weeks I have worked ZL7, JT1, VK6, 3X, 9L all on 80mtrs from my postage
> |> stamp garden. See www.bencher.com and check out the articles. www.eham.net
> |> for product reviews.
> |
> |Excepting your respect, this argument is not sufficient to say your
> |antenna is better than another.
>
> True, but then neither is yours which follows.
>
> |With the propagation conditions that are decreasing due to the lower
> |solar activity after the 2000-2002 peak, it is quite normal you
> |experiment better results on the lower bands for a few months or so.
> |
> |My nearest friend uses a Cushcraft R7000 placed 5m high at the end of
> |his garden 100m away from all buildings and has confirmed over 280
> |DXCC since 1999, whatever the band.
> |However last week we both were unable to work R1ANC. We heard him but
> |he cannot heard us located 15000 km away on 15m (we are in south ON).
> |If it was on 40m beleive me my friend 'd have his QSO confirmed !
>
> (I must ask: when you post to rec.radio.amateur.dx you add, "ONL5183
> (in LX)" as your 'call' sign. So how where *both* of you unable to
> work anybody?)
>
> |
> |Personally I am well unable to make the difference between
> |performances of a Cuschraft, Butternut or High-gain models, and this

> |is therefore I use a dipole !
>
> Good for you. But the topic is "Multiband verticals" and the original
> author was looking for comparison of---well---multiband verticals.
> How often have you transmitted on the three you compared? What were
> the relative SWR bandwidths? Any mechanical superiority of one over
> another?
>
> Wes N7WS
>
>
>
>
>
>

2588. Re: electrostatically shielded antenna NEC model?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 21:38:09 UTC
From: k7itm@aol.com
Message-ID: <3200347.0211161338.69a166cb@posting.google.com>
Source record: 131177

With respect to your "electrostatically shielded loop" model, just
model the outer conductor of the coax, which is where the antenna
currents are. The inside only carries transmission line currents,
which aren't seen outside. The "shielding" isn't really shielding at
all, it IS the antenna. I don't think that will help you much with
your antenna embedded in a high-K dielectric.

Cheers,
Tom

"David A. Howard" <dahoward@pacbell.net> wrote in message
news:<x_WA9.519$qI2.72908113@newssvr21.news.prodigy.com>...
> While I've been quite successful in the actual construction of 1-wavelength
> shielded loops, I've discovered I'm clueless as to how to model them using
> EZNEC/4...
>
> I've made them out of RG-405 rigid coax, and printed micro-stripline vesions
> on FR4, and 3-mil polyimide, and polyester flexible laminates... I'd like
> to try the same technique or possibly stripline on/in high dielectric
> ceramic materials (dK >20 <100). I've already tried a physically scaled
> down microstrip version on Arlon 1000 (dK10), but the results weren't what I
> expected. Before I fork over the cost of printing on multilayer LTC
> Ceramics, I thought it might be a good idea to model the beast to get a
> better understanding of what is going on...
>
> Unfortunately, I haven't been able to construct a model in NEC that is close
> to rigid coax, or low dK microstrip antennas I've already built/tested
> (physical size, gain, impedance, etc...). I realize their are dielectric
> effects that I wouldn't be able to model in NEC, but at this point I would
> be very happy to just get an air dielectric equivalent shielded loop in NEC.
>
> Any ideas/examples out there?
>
> David A. Howard
> dahoward@pacbell.net

2589. Re: Elevated Radials idea

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 22:05:33 UTC
From: tdonaly@aol.com
Message-ID: <20021116170533.08978.00000014@mb-cp.aol.com>
Source record: 131178

>
>Richard Harrison wrote:
>> A changing potential difference produces a changing electric field, and
>> a changing electric field produces a changing magnetic field, which
>> produces a changing electric field, etc., ad infinitum.
>
>Actually, until sometime after the Big Bang, the universe was opaque. :-)
>--
>cheers, CAM http://www.qsl.net/w5dxp
>
>

You're older than you look.
73,
Tom Donaly, KA6RUH

2590. Re: Autek or MFJ ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 22:45:22 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ar6hq1avf1@sparta.btinternet.com>
Source record: 131179

When being used to test the larger 160m and 80m antennas on their fundamental frequencies, both meters suffer from interference picked up on the antennas from powerful, local, MF AM broadcasters.

Meter readings become erratic. The internal oscillators have too low a level.

Reg, G4FGQ

2591. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 22:45:23 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ar6hq2avf2@sparta.btinternet.com>
Source record: 131180

> I've considered and written about the
> effects of transmission lines and tuners on bandwidth.
>
======================

Wes, briefly, what were your conclusions? Could you provide a few numbers
please?

Reg.

2592. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 23:16:09 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211161516.621d56af@posting.google.com>
Source record: 131181

Wes Stewart <n7ws@nowhere.com> wrote in message
news:<2hvctusblm8j6s9e6htsmj544tgd72ok4i@4ax.com>...
> On 16 Nov 2002 08:17:29 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
> wrote:
>
> [snip]
> |
> |Reg,
> |What you are asking for will never happen. We have now evolved into a
> |group
> |of followers of the books, experimenting has gone, 'it's not my job'
> |is so convenient. On my multiband antenna no one built it but would
> |rather pay big bucks for a commercial antenna that cannot compare with
> |respect to gain and less moving parts and that is putting aside how
> |inexpensive it is.It is not in a book even tho all the corroberating
> |facts are. If you said, use a vacuum tume (valve)delay tube where
> |possible instead of paying big bucks for a standard high voltage relay
> |they would decline because it never was written in Q.S.T.
> |Even with respect to capacitive coupling they are ruled by
> |conventional
> |writings as to how a capacitor works and thus are stymied in following
> |new aproaches.For capacitive coupling I am of the opinion that the
> |exact transition of energy varies, in this case with frequency. This
> |ofcourse will never see the light of day until a experiment shows
> |traces of minor flash over progress along a plate as frequency changes
> |and it is written in a book. For extra bandwidth which appears to be
> |of interest not one came forward and said they had tried it
> |so the aproach will disappear. I do not blame the amateurs that make
> |this such a wonderful hobby, I blame the professionals (experts) who
> |are so quick to douse the flame of something new, fresh thinking, out
> |of the box thinking,
> |new idea proposals e.t.c. because their minds are so rigid.
> |This thread will last a few days only and all will then search for
> |'comedy'.
> |Nothing personal to those on the group but experimenting is dead on
> |this side of the pond Reg, we now have so much more money that it is
> |not worth the time
> |to experiment or innovate, we just buy it and use it, the man with the
> |most toys wins. Now I am accused of STEALING an idea. During my
> |working years I always tried to put others on patents even to the tune
> |of withdrawing totally as a contributor or becomming known as "et al".
> |If one didn't do that everybody would stake a claim and make life
> |miserable. Now when sharing thoughts with my fellow hams I am now not
> |only being accused of being stupid I am now being labelled as a THIEF

> |of ideas by so called experts. Lets face it, being a ham is all about
> |talking now.
> |Best regards to my fellow limeys
> |Art Unwin KB9MZ.....XG
> |I know I am feeling a bit down but I will be better tomorrow.
>
> Art, I certainly hope so. You are being quite unfair in your critique
> of the "state-of-the-amateur-art."
>
> You accuse others of knee-jerk responses that immediately dismiss new
> ideas, and "follow the books", but for the most part, the "books" have
> been vetted repeatedly and are our "best guess" at how things work.
>
> Believe me, I have tried on several occasions to model designs that
> you have offered. While it is likely that I didn't understand what
> you were saying and the models didn't represent what you had in mind,
> I don't believe it is my shortcoming. I have tried with your
> "loop-fed" (my description) dipole and with the configuration you have
> proposed in this thread (Witness my query about which is better,
> mininec or nec-2 for modeling close-spaced wires) and for the life of
> me, I cannot achieve results as you describe.
>
> As I have offered to do in the past, if you can provide a succinct
> description of your "Off-center-capacitive-coupled-multi-band-feed
> system", I will gladly model it and provide the results to the group
> for critique of both my modeling technique and your design.
>
>
> Wes N7WS

Why would you help a thief out? Why would you help out a dishonest
person ?
Why would you help out a liar? Why would you help out a fool?
In the main, experimentation IS dead on this side of the pond but my
comments do not refer to everybody. I enjoy this hobby and the people
I meet if and when I get on the air, which is not often, so I
certainly would not paint everybody with the same brush.
At the same time I see so many questions that can be solved by the
inquisitive
in an hour or so with a piece of wire in the old days and I see so
many
looking for faults but I still hang around because I like the hobby. I
am not an illiterate,thief,dishonest,ignorant or a liar as some would
paint me .
I would say that I do not communicate very well, but burning at the
stake is a bit too harsh for those who possibly are mentally ill. By
the way the record is clear that all has been disclosed and shared
with amateurs, those who are interested in pursuing can do so quite
easily tho probably not as easily as criticising or jeering. Yes,
ofcourse, I am the one who is being unfair, everybody else are such

nice angels.
Art

2593. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 23:29:04 UTC
From: jder8745@aol.com
Message-ID: <20021116182904.14110.00000050@mb-cj.aol.com>
Source record: 131182

Good for you.

I have also noted ghosting in my TV set at home. But it was always caused by two different signals reaching the antenna out of phase.

I can rarely remember ever seeing such a phenomenon whilst viewing from the cable.

Except: There is a strong ch 2 station locally. I have seen it cause a ghost while l I am watching cable channel 2. But of course these are two different programs.

I don't think this is what we are talking about, re: forward and reflected waves.

The telephone line echoes aren't a steady state phenomenon but a transient one.

(I can't believe I used the word "phenomenon" twice! There must be a CW shortcut for it.)

73 de Jack, K9CUN

2594. Re: Autek or MFJ ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 23:39:15 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <5UOdnQJgw5xcS0ugXTWcpg@comcast.com>
Source record: 131183

Reg,

When using the MFJ on my 75M loop, I get an AM reading, PM readings, and evening readings. My Kenwood power meter says the SWR is 1.2:1 at 3800. Worst case with the MFJ is at night, when it gives me readings of about 5:1 across the whole band. I suspect that in addition to BC stations, and I am broadside to New York City transmitters 15-30 miles away, it may be getting confused by strong 75 meter signals. Nevertheless, I am looking at building a 3 MHz HPF.

I did find the thing quite useful in chasing down a problem with my 2m beam: turned out to be a loose UHF connector that is part of the gamma match.

Tam/WB2TT
_____--
"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:ar6hq1avf1@sparta.btinternet.com...
> When being used to test the larger 160m and 80m antennas on their
> fundamental frequencies, both meters suffer from interference picked up on
> the antennas from powerful, local, MF AM broadcasters.
>
> Meter readings become erratic. The internal oscillators have too low a
> level.
> ---
> Reg, G4FGQ
>
>
>

2595. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 23:47:27 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <jOAB9.156$cX3.107567@newshog.newsread.com>
Source record: 131184

"Gordon Couger" <gcouger@NOSPAMprovalue.net> wrote in message
news:qbiA9.8295$P71.2247169@newsfeed.slurp.net...
>
> "dan" <danlx@execpc.com> wrote in message
> news:3dcbe038$0$1427$272ea4a1@news.execpc.com...
> > On Fri, 08 Nov 2002 14:55:59 GMT, Alan Beagley
> > <abeagley@optonline.net> wrote:
> >
> > >My local Home Depot used to sell Lexan, but they've either stopeed or
> it's been moved.

Just try your local hardware store if the discount places don't have it.
(Lexan) Around here any windows in storm doors have to be made of Lexan.
I picked up some small scrap pieces from their cutter and purchased a piece
3' X 8" X 1/4 inch thick. The stuff is expensive, but strong. I use 3 X 5
inch pieces as center insulators for my 75 meter slopers. They also hold the
baluns and support the coax.

As I bought a piece that was left over they gave me a good price and quite a
hand full of smaller pieces.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)

> > >
> > >-=-
> > >Alan, AB2OS
> > >
> > >
> > >KC1DI wrote:
> > >> Hi Gordon,
> > >> I've also found that Lexan works well if you can find a source for it
> > >> around you.. it's the stuff they use in bullitproffing banks .
> > >>
> > >> It's tuff and seems to exhibit good rf insulating properties.
> > Hi all,
> > Look in the phone book under plastic and glass. Plastic distributors
> > and companies that use plastic usually have a dumpster with scraps in
> > it. I have had good luck by asking the guy at the loading dock if I
> > can get a few pieces out for my project use. If they say no, come
> > back after hours and leave a couple of bucks for the pieces you take.
> >
> > Glass shops also have plastic and sometimes have small cutoffs that

> > they can't sell at retail prices. Always haggle with them.
> >
> > Referring to an earlier post. Lexan is not bulletproof, just bullet
> > resistant. It can be penetrated with the right load. Unless the
> > lexan is installed properly it can also be blown out of the opening by
> > a large caliber slug. I have seen Kevlar used to make walls in banks
> > and gas stations harder to penetrate but never Lexan. Matter of fact,
> > if you have installed the drive thru window assemblies in banks and
> > gas station pass throughs as I have, you would know exactly where to
> > shoot to avoid hitting anything that would do more than slow down a
> > bullet.
> >
> > One gas station owner covered the concrete block walls and attendant
> > area door with Kevlar and put bullet resistant glass in all the
> > windows around the cashier and a bullet resistant Lexan cash pass thru
> > window assembly in. Only thing he did not do was put anything behind
> > the pegboard under the pass thru window. He thought no one would
> > notice it because it was covered with candy. LOL
> > Dan
> > N9JBF
>
> Lexan will do the job and I may use it for one antenna.
>
> Thanks Gordon
>
>

2596. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 23:59:01 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <9ZAB9.157$cX3.108501@newshog.newsread.com>
Source record: 131186

"JDer8745" <jder8745@aol.com> wrote in message
news:20021116123930.21327.00000039@mb-cl.aol.com...
> Howdy, Hammers
>
> The whole idea of forward and reflected power in the steady state is only
a
> mathematical way to look at things.
>
> If the line is lossless, ALL the power going into the sending
(transmitter) end
> of the transmission line goes to the load (antenna) end and is partially
> radiated and partially converted to heat by losses in the antenna.

If the line is lossless, reflects half the power and we have a good match/line tuner at the rig, and the line is 2 wavelengths long, then: with 100 watts out of the transmitter, 100 watts reaches the antenna BUT, 50 watts is reflected back to the transmitter where it is reflected back in phase with the outgoing power (and is in phase, but two complete cycles behind, so we now have 150 watts going forward. 150 watts gets tot he antenna and 75 watts is reflected back to the transmitter. where we now have 100 + 75, or 175 watts forward. This cycle will repeat until we have 200 watts to the antenna with 100 watts radiated and 100 watts from the transmitter itself.

The thing to remember is that each reflection will be however many cycles behind the first with each sucessive cycle being farther displaced but in phase. (you could say they are out of phase by multiples of 360 degrees.

In voice this is usually not a problem and not likely to be one on CW, but for data and TV it can be a big problem. Ghosts on TV with invalid checksums and other maladies with data.
>

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)

> By playing like there is a forward component and a reflected component it
makes
> the arithmetic easier.
>
> It's like the rotating magnetic fields in a single phase motor. There is
only
> a polarity reversing field which does not rotate but this can be thought
of as

> two fields rotating in opposite directions. The motor will not start by
> itself, but if you give it a spin in EITHER direction it will continue to
run
> in that direction.
>
> The only reason I am mentioning the motor s that it shows how we often use
> mathematical equivalences for the real world happenings to make the
arithmetic
> easier.
>
> And that's all I have to say about that!
>
>
> 73 de Jack, K9CUN

2597. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-16 23:59:30 UTC
From: Bill M <exray@no>
Message-ID: <utdmomb8jg5145@corp.supernews.com>
Source record: 131185

JDer8745 wrote:
>
> Good for you.
>
> I have also noted ghosting in my TV set at home. But it was always caused by
> two different signals reaching the antenna out of phase.
>
> I can rarely remember ever seeing such a phenomenon whilst viewing from the
> cable.
>
> Except: There is a strong ch 2 station locally. I have seen it cause a ghost
> while l I am watching cable channel 2. But of course these are two different
> programs.
>
> I don't think this is what we are talking about, re: forward and reflected
> waves.

Hi from a cable guy,
One of the telltale signs in cable troubleshooting of a shield break or missing/damaged termination is ghosting on the low-VHF channels for the subscribers on that particular distribution line. In such case, it is due to reflections of the actual signal.
The 'taps' used are typically directional couplers and will offer in the range of 20db of rejection to backwards travelling signals. As a result, all the normal, minor reflections are way down. But in the case stated there is very little return loss at the fault and the attenuation of the cable for the bounced signal is pretty low at low-VHF...hence it may be visible there and not on the higher channels.
-BM

2598. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 00:07:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utdnejelerm064@corp.supernews.com>
Source record: 131187

It takes a really long cable to produce an obvious ghost on a TV. The width of the screen is 63.5 us (NTSC standard), and the delay in a coax cable with solid dielectric is about 1.5 ns per foot. So for a reflection to appear, say, 5% of the screen width to the right of an object, the delay would have to be 0.05 * 63.5 us = 3.18 us = 3180 ns. The signal would have to travel through over 2000 feet of cable for this delay, or a round trip in 1000 feet. With the cable used for typical TV applications, the attenuation would be so great in this length of cable that you'd never see the reflection. The ghosts you see on your TV are invariably from the signal arriving at your antenna via multiple paths of different lengths.

Actually, a line-caused echo can sometimes be seen on a TV monitor when both the source and load are improperly terminated. With standard TV quality equipment, you can see echos with delays on the order of 200 ns, which requires a cable length of only 67 feet or so. This looks like a little extra "edge" to an object, sometimes followed by a little ringing, and is often not noticeable except to a critical eye. I've never seen it on a broadcast TV set, but have seen it on closed circuit TV systems when the monitor termination switch was left open and the source impedance didn't match the cable. You'd be able to see echos of shorter duration on higher resolution systems. Like other transmission line phenomena, it can be completely explained in terms of forward and reflected voltage and current waves without having to invoke the concept of power bouncing around on the line.

Roy Lewallen, W7EL

JDer8745 wrote:
> Good for you.
>
> I have also noted ghosting in my TV set at home. But it was always caused by
> two different signals reaching the antenna out of phase.
>
> I can rarely remember ever seeing such a phenomenon whilst viewing from the
> cable.
>
> Except: There is a strong ch 2 station locally. I have seen it cause a ghost
> while l I am watching cable channel 2. But of course these are two different
> programs.
>
> I don't think this is what we are talking about, re: forward and reflected
> waves.
>
> The telephone line echoes aren't a steady state phenomenon but a transient one.

>
> (I can't believe I used the word "phenomenon" twice! There must be a CW
> shortcut for it.)
>
> 73 de Jack, K9CUN
>
>

2599. Re: Looking for antenna suggestions for unusual location

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 00:34:20 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD6E40C.6B415801@cwis.net>
Source record: 131188

Rick,
You know the old story, I guess I assumed too much about
your situation. So, lets look at this from another angle.
How do you feel about a mobile antenna(s) mounted on your RV?
It/they wouldn't be the 'best' antenna(s) by any means, but
that's one solution that will get you on the air. The 'catch'
would be 160 meters. That isn't going to be 'easy', but it's
certainly 'doable'. The easiest way with a mobile antenna is
to throw money at it, use one of the 'screw-driver' antennas,
since that would eliminate changing taps on a coil. Put it
on a hinged base, and lay it down when you move the RV. The
RV would provide at least as much 'ground' as a car or truck,
and there are a number of them on 160 meters too. Or, how about
a 'cluster' of 'Hamstick' antennas? Probably not 'better', but
much cheaper than the 'screw-driver'. (An RF candelabra(?))
'Doc

2600. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 00:41:13 UTC
From: Bill M <exray@no>
Message-ID: <utdp6pm2q15q5b@corp.supernews.com>
Source record: 131189

Roy Lewallen wrote:
>
> It takes a really long cable to produce an obvious ghost on a TV. The
> width of the screen is 63.5 us (NTSC standard), and the delay in a coax
> cable with solid dielectric is about 1.5 ns per foot. So for a
> reflection to appear, say, 5% of the screen width to the right of an
> object, the delay would have to be 0.05 * 63.5 us = 3.18 us = 3180 ns.
> The signal would have to travel through over 2000 feet of cable for this
> delay, or a round trip in 1000 feet. With the cable used for typical TV
> applications, the attenuation would be so great in this length of cable
> that you'd never see the reflection.

Roy,
Consider that "5% of screen width" even on a 21" TV is about an inch.
Paying viewers get pretty perturbed at a whole lot less than that and
may not even perceive a 1/4" colored fringe to be a ghost. That 1/4"
can be pretty smeary and nasty looking, though.
But even sticking with the 1000 foot return signal, thats only about
5.4db with typical cable at 54 MHz. That, plus maybe 20db of
directional coupler isolation, puts the bounced signal only 25 db down
from the desired signal. This, of course, is assuming a situation like
an unterminated or damaged line that may have a return loss of darn near
zero.
Thats plenty visible on an analog signal and can wreak havoc on a
digital or data signal.
-BM

2601. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 00:51:21 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <ar6p6d$m7a$1@slb6.atl.mindspring.net>
Source record: 131190

Cecil:

[snip]
"OC_CAM's_Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DD69F28.C873A613@ieee.org...
> JDer8745 wrote:
> > By playing like there is a forward component and a reflected component
it makes
> > the arithmetic easier.
>
> Playing like there is a forward component and a reflected component
> also causes ghosting in TV systems and echos in telephone lines. So
> it seems that the more we play like reality, the closer we get to
> reality.
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

Heh, heh... Cecil, "there you go again"!

TV ghosts and echos on telephone lines are signal "dispersions" [a.k.a
intersymbol interference] and are
actually caused by group delay distortions [i.e. variations in group delay
from an absolute flat transport
delay] in a forward transmission path not from "reflections".

In the *steady state* on an unmatched transmission line system there is no
forward and reflected energy
sloshing about longitudinally from end to end of the transmission line.
Rather there is only a transmitted
energy that flows continuously toward, and is dissipatd in, the resitive
part of the load impedance. On
such a transmission line there is however a sloshing of energy back and
forth differentially [i.e. from
side to side or transversally rather than longitudinally.] between the
electric and magnetic fields of the transmission
lines' distributed capacitance and inductance.

In the transient period leading up to the full *charging* of the
transmission line there is indeed energy
reflected back and forth longitudinally, but this end-to-end reflection of
energy ceases after a *few*
transmission line length related time constants have passed as the line
settles into its' regime of transmitting
a steady state power down the line while simultaneously *storing* a finite
amount of energy sloshing back

and forth transversally along its' length in its' then fully charged
distributed electric and magnetic fields as
supported by the boundaries of its' distributed inductance and capacitance.

A much better example of reflections than TV ghosts should be drawn from
systems operated in a more
transient regime rather than in such a nearly steady state regime. A better
example of individual reflected
wave packets would be that of a system operated in a highly transient mode
like a pulsed radar system,
where the system never comes into steady state equilibrium, but where each
echoed pulse is received
individually before another is transmitted.

However, that being said, it is perfectly feasible to obtain the same
results as a pulsed radar using
continous wave techniques. Indeed this is how some synthetic aperature
radar systems work, and so too
do other such techniques such as used in seismic exploration, echo
cancellation in modem systems, etc...
where the time delay between the source and load are well within a the time
period of a single cycle of
the highest wavelengths in use.

A slavish insistence upon a *strained* visualization viewpoint that insists
that all such phenomena must be
described by a Copernican-like model of reflections and echos that is more
complicated than necessary,
even for rigorous engineering design, and which as well stresses the
credulity of both amateur practicioners
and many professionals, and which is so arcane as to require its' proponents
to require *true-believer-like*
interpertations of calculated quantities as *pseudo-powers* is, in my
humble opinion, a somewhat crippled
viewpoint of reflection mechanics. Simplest is best! Why make things more
complicated than necessary?

Any viable and believeable viewpoint of reflection mechanics should be
consistent and work for all dynamic
reflection regimes from direct current [DC] maximum power matching to SHF
pulsed radar systems. There
should be no *magic* frequencies above which one view is valid and below
which another is valid.

Direct current or DC transmission is nothing more than AC operated a
frequency of zero Hz. The models
of reflection mechanics should be consistent from f = 0 Hz all the way to
"daylight" f = oo. DC power
matching *is* the same as steady stated AC power matching, period, end of
story.

Simple calculations involving nothing more than volts and amperes are sufficient to rigorously engineer all
such systems and there is simply no need, other than mathematical convenience, to introduce superflous
auxilliary quantities such as the so-called forward and reflected power.

A theory and/or visualization of so-called reflection dynamics should be consistent and should
result in the same experimentally observed quantitative results for both transient and steady state phenomena
and for all such regimes in the continuum between the transient and steady state.

--Peter
Indialantic By-the-Sea, FL.

2602. Re: Radiation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 00:54:18 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211161654.6221dedc@posting.google.com>
Source record: 131191

OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DD6A026.4DE73BF6@ieee.org>...
> Art Unwin KB9MZ wrote:
> > When one passes a radiator thru a long aluminum
> > tube is one wasting energy or conserving energy?
> > Put another way, does the tubing create a transmition
> > line situation or does it just disperse radiation energy?
>
> If the fields are completely confined inside the tube and if
> a load exists, it will act like a transmission line. It is like
> running 1/2WL of low loss coax between phased verticals.

O.K. so now let me be a bit more specific. When merging a loop with a
dipole radiator where part of the loop rests INSIDE of the dipole,
that within the
dipole takes on the role of a low loss transmission line which means
that I am
conserving energy by not radiating in an UNDESIRED direction tho I may
be creating a loss because of the impedance mismatch of the circuit
within the dipole.
Did I go astray from what you was meaning?
I am testing such an arrangement and want to be sure before hand that
the above
is what I should expect which is also my thinking.
Thanks
Art

2603. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 00:56:40 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD6E948.5D29DE6C@ieee.org>
Source record: 131192

JDer8745 wrote:
>
> Good for you.
>
> I have also noted ghosting in my TV set at home. But it was always caused by
> two different signals reaching the antenna out of phase.

> I don't think this is what we are talking about, re: forward and reflected
> waves.

I didn't say all ghosting was caused by reflections. But you can set up an
experiment for yourself. Use a matching network to match 1000 feet of 450
ohm line feeding a 75 ohm TV receiver. You will see layers of reflected waves
as multiple ghosts. Will you deny the existence of reflected waves when you
see them with your own eyes?

> The telephone line echoes aren't a steady state phenomenon but a transient one.

All modulation echoes are transients. If they were not transients, you wouldn't
be able to detect them. The fact that you can detect differences in modulation
means that two+ waves have superposed. Where did the second wave come from?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2604. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 00:59:44 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <E4-dnX0CstgAdEugXTWcqA@comcast.com>
Source record: 131193

I don't know what you mean by transient. It is a real echo. The reason you don't hear it much any more is that the telephone company CO uses DSP echo cancellers. Echoes occur at two wire/four wire interfaces, and the far end customer's telephone. In addition to electrical echo, they even worry about acoustic feedback from a telephone receiver back into the microphone. There are all kinds of specs on this. They are really weird about it in Europe.

Tam/WB2TT
"JDer8745" <jder8745@aol.com> wrote in message
news:20021116182904.14110.00000050@mb-cj.aol.com...
> The telephone line echoes aren't a steady state phenomenon but a transient one.

2605. Re: Radiation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 01:20:43 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <sdrdtucq3h8pifvnpcmti2q0p5ki2njsr1@4ax.com>
Source record: 131194

On 16 Nov 2002 16:54:18 -0800, aunwin@insightbb.com (Art Unwin KB9MZ) wrote:

>OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote in message news:<3DD6A026.4DE73BF6@ieee.org>...
>> Art Unwin KB9MZ wrote:
>> > When one passes a radiator thru a long aluminum
>> > tube is one wasting energy or conserving energy?
>> > Put another way, does the tubing create a transmition
>> > line situation or does it just disperse radiation energy?
>>
>> If the fields are completely confined inside the tube and if
>> a load exists, it will act like a transmission line. It is like
>> running 1/2WL of low loss coax between phased verticals.
>
>O.K. so now let me be a bit more specific. When merging a loop with a
>dipole radiator where part of the loop rests INSIDE of the dipole,
>that within the
>dipole takes on the role of a low loss transmission line

NO

>which means
>that I am
>conserving energy

NO

> by not radiating

NO

> in an UNDESIRED direction

NO

> tho I may
>be creating a loss because of the impedance mismatch of the circuit
>within the dipole.

NO

>Did I go astray from what you was meaning?

?

>I am testing such an arrangement and want to be sure before hand that
>the above

>is what I should expect which is also my thinking.

??

>Thanks
>Art

73's
Richard Clark, KB7QHC

2606. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 01:22:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utdrqmrt0bbn85@corp.supernews.com>
Source record: 131195

I'm a little hazy about this. The frequency of time-varying portion of the power wave or waveform is twice the frequency of either the V or I. So when you say the the power is "two complete cycles behind", do you mean two cycles of V or I, or two cycles of the power waveform (which would be half the time interval of two cycles of V or I)? The power waveform also contains a considerable DC component. Is this also reflected? If so, how can it be "in phase" or "out of phase" with anything? If the load is reactive, how do we figure the reflection coefficient for this power wave? Based on the frequency of V and I, or the frequency of the power wave?

Roy Lewallen, W7EL

Roger Halstead wrote:
>
> If the line is lossless, reflects half the power and we have a good
> match/line tuner at the rig, and the line is 2 wavelengths long, then:
> with 100 watts out of the transmitter, 100 watts reaches the antenna BUT, 50
> watts is reflected back to the transmitter where it is reflected back in
> phase with the outgoing power (and is in phase, but two complete cycles
> behind, so we now have 150 watts going forward. 150 watts gets tot he
> antenna and 75 watts is reflected back to the transmitter. where we now have
> 100 + 75, or 175 watts forward. This cycle will repeat until we have 200
> watts to the antenna with 100 watts radiated and 100 watts from the
> transmitter itself.
>
> The thing to remember is that each reflection will be however many cycles
> behind the first with each sucessive cycle being farther displaced but in
> phase. (you could say they are out of phase by multiples of 360 degrees.
>
> In voice this is usually not a problem and not likely to be one on CW, but
> for data and TV it can be a big problem. Ghosts on TV with invalid
> checksums and other maladies with data.
>
>
> --
> Roger Halstead (K8RI EN73)
> www.rogerhalstead.com
> N833R World's oldest Debonair? (S# CD-2)
>
>
>
>>By playing like there is a forward component and a reflected component it
>
> makes

>
>>the arithmetic easier.
>>
>>It's like the rotating magnetic fields in a single phase motor. There is
>
> only
>
>>a polarity reversing field which does not rotate but this can be thought
>
> of as
>
>>two fields rotating in opposite directions. The motor will not start by
>>itself, but if you give it a spin in EITHER direction it will continue to
>
> run
>
>>in that direction.
>>
>>The only reason I am mentioning the motor s that it shows how we often use
>>mathematical equivalences for the real world happenings to make the
>
> arithmetic
>
>>easier.
>>
>>And that's all I have to say about that!
>>
>>
>>73 de Jack, K9CUN
>
>
>

2607. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 01:36:30 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD6F29E.78EC7BB8@ieee.org>
Source record: 131196

"Peter O. Brackett" wrote:
> In the *steady state* on an unmatched transmission line system there is no
> forward and reflected energy
> sloshing about longitudinally from end to end of the transmission line.

Well, that's just false, Peter, as you can prove to yourself by connecting
1000 feet of open-wire transmission line to a 75 ohm TV receiver and matching
the TV signal generator at the other end by trimming the ladder-line to a
exact multiple of half-wavelengths. You will see multiple layering of TV
ghosting, each layer being about 1/4 power compared to the previous one.
Rho will be about 0.77 and the round trip loss on Channel 2 for that 1000
feet of open-wire transmission line will be about 3 dB. I ran that experiment
in graduate school at Texas A&M almost half a century ago except that it
was with a 300 ohm TV receiver so the reflection magnitudes were smaller.
I saw the ghosting caused by reflections with my own eyes.

I have noticed a tendency lately to require reality to match the mental model
rather than vice versa. You latter day gurus have been seduced by steady-state
sine waves. (obviously the work of the Devil :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2608. Re: CAT5 cable to control remote antenna switch. Thoughts?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 01:40:19 UTC
From: James <jimbo@nomospamer.com>
Message-ID: <3DD6F381.95E4F20D@nomospamer.com>
Source record: 131197

Home Depot sells Outdoor Rated Cat 5 cable.

check out www.cablexperts.com for other cable options.

KA9CAR wrote:

> Plenum rated Cat 5 will be more expensive but probably survive the burial
> better.
> KA9CAR
>
> "Mark" <golfradio@yahoo.com> wrote in message
> news:21b5602c.0211121328.3563c373@posting.google.com...
> > I have a 150' run to a remote antenna switch and am wondering if some
> > cheap 8-conductor CAT5 cable would work. It would be buried for
> > approx. 100' then up the tower another 50'or so. Anyone try this? Any
> > thoughts pro or con?
> >
> > 73', Mark

2609. Re: Radiation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 01:40:26 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD6F38A.5E3DB678@ieee.org>
Source record: 131198

Art Unwin KB9MZ wrote:
>
> OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote:
> > If the fields are completely confined inside the tube and if
> > a load exists, it will act like a transmission line. It is like
> > running 1/2WL of low loss coax between phased verticals.
>
> O.K. so now let me be a bit more specific. When merging a loop with a
> dipole radiator where part of the loop rests INSIDE of the dipole,
> that within the
> dipole takes on the role of a low loss transmission line which means
> that I am
> conserving energy by not radiating in an UNDESIRED direction tho I may
> be creating a loss because of the impedance mismatch of the circuit
> within the dipole.
> Did I go astray from what you was meaning?

Well, you obviously will need to ensure that no currents flow on the
outside of that particular piece of tubing. How are you going to do that?
Install #77 toroids up and down the entire length?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2610. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 01:55:58 UTC
From: richardharrison@webtv.net
Message-ID: <27664-3DD6F72E-99@storefull-2318.public.lawson.webtv.net>
Source record: 131199

Peter, AB4BC wrote:
"Direct current or DC transmission is nothing more than AC operated at a frequency of zero Hz.

Yes, but this has significant cosequences. The peak value of d-c is no more than its effective value. A-C of the same effective value (its rms value) has a peak value of 1.414 times its effective value. So, a-c needs more insulation. D-c doesn`t loaf at any point during its constant transmission. The line loss suffers no peaks and valleys.

Reactance does not affect steady-state d-c. And d-c does not usually radiate or induce loss in the earth or other surroundings.

To deny the existance of reflected energy is naive. Too many observers have seen time domain reflection gear work. A pulse encountering a discontinuity is seen to produce a returning reflection right on the scope and the distance displayed on the screen can be translated into a distance from the sender to the reflection point.

Best regards, Richard Harrison, KB5WZI

2611. Re: Radiation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 02:24:17 UTC
From: richardharrison@webtv.net
Message-ID: <27665-3DD6FDD1-34@storefull-2318.public.lawson.webtv.net>
Source record: 131201

Cecil wrote:
"How are you going to do that (keep the loop shield from radiating)?"

I suggested on a previous thread that Art mount his single-turn loop perpendicular to the dipole so its radiation would support the dipole`s radiation rather than detract. Art may have a better idea.

Best regards, Richard Harrison, KB5WZI

2612. Re: Autek or MFJ ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 02:39:33 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ar6vh5$n8u$1@knossos.btinternet.com>
Source record: 131200

Nevertheless, I am looking at building
> a 3 MHz HPF.
==========
Tam,

Unfortunately, when a high pass filter is inserted in the test lead it is impossible to prevent it from adding itself to the length of the transmission to the antenna. It seriously upsets the very thing you are trying to measure!

Can only wait until improved versions become available.

Reg

2613. Re: Autek or MFJ ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 05:01:12 UTC
From: charlesh3 <charlesh3@msn.com>
Message-ID: <jrOdnedorOGNvkqgXTWcqA@giganews.com>
Source record: 131202

My interest is mostly in measuring Beverages at MF and 160m. Is there anyone out there that has gotten good data on Beverages at those frequencies (via Autek or MFJ), or am I doomed to suffer the same problems mentioned below?

Chuck

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message news:ar6hq1avf1@sparta.btinternet.com...
> When being used to test the larger 160m and 80m antennas on their
> fundamental frequencies, both meters suffer from interference picked up on
> the antennas from powerful, local, MF AM broadcasters.
>
> Meter readings become erratic. The internal oscillators have too low a
> level.
> ---
> Reg, G4FGQ
>
>
>

2614. Butterfly Beam Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 05:23:48 UTC
From: Demitri Garazha <vze2cd4i@verizon.net>
Message-ID: <EJFB9.6025$aB1.377@nwrddc02.gnilink.net>
Source record: 131203

Butterfly Beam Antenna

Two element compact size antenna-designed for the amateur with limited space Wingspan: 12 ft. 6 in. (3.8 m) Boom Length: 6 ft. (1.8 m) Turning Radius: 6 ft. 11 in. (2.1 m) Vertical Spreaders: 6 ft. (1.8 m) Shipping weight: 22 lbs. (10 kg) Gain: 3+ dBd 20 m, up to 5 dBd on all other bands except 17 m which acts as a rotary dipole Front-to-back: up to 20 dB Front-to-side: up to 30 dB Can demonstrate in air.Brand new cost around 400-600$.I sell 180$. Antenna is in very good condition.Looks like new. ak2p@qsl.net

2615. henry 2k-3 floor model

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 05:27:38 UTC
From: Demitri Garazha <vze2cd4i@verizon.net>
Message-ID: <eNFB9.6033$aB1.5101@nwrddc02.gnilink.net>
Source record: 131204

henry 2k-3 floor model

It was modified to increase power. I replaced rectifiers.Add new plate transformer. It can give you 1 Ampere with almost 4KV on anode on any band.(80-10M). Heavy duty amplifier.Pick up only in NY area.Can demonstrate on any band.People give me 20 db plus,when I use it.Wired for 220V. Comes with spare tube 3-500Z.I think of 800$. If interested - ak2p@qsl.net

2616. Re: Example V-Plane Patterns for HF Verticals? Where?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 05:38:13 UTC
From: Larry Higgins <n9dx@attbi.com>
Message-ID: <9XFB9.53974$NH2.3235@sccrnsc01>
Source record: 131205

In my 1984 ARRL Antenna Book, radiation patterns are shown for several heights. 3/8 wave is unfortunately not shown. It also shows feedpoint impedance over perfectly conducting ground. At 3/8 wave, the impedance is 180 ohms radiation resistance, and about 400 ohms inductive reactance. Helically winding the spreader raises this reactance still further, making it more difficult to match. Furthermore, helically wound elements have been shown to be less efficient than straight conductors and good loading components. (For more details, see the archives at topband@contesting.com) With inductive elements such as yours, the series loading component will be a capacitor rather than a loading coil. Two problems then arise: first, with a kw, there will be about 650 volts rms (1kv peak) across the capacitor, and second you will then have a resistive feedpoint consisting of 180 ohms radiation resistance, plus your loss resistance. This does result in higher efficiency, but a matching network will be required if you want to feed it with 50 ohm coax.

The 1994 book (17th edition) doesn't have the same figure. It does have a table (Table 3) in chapter 3 which gives info on radial requirements for ground mounted verticals. For a small number of radials, the radials need not be very long. Figures are for a quarter wave vertical over average soil, with radials. The lengths shown are optimum for the number of radials shown. Excerpting from the table, with 16 radials, 0.1 wavelengths long, the signal is down 3 db below perfect ground. With 24 radials, length is 0.125 wavelengths, down 2 db. With 60 radials, 1/4 wavelengths, 1 db down.

The 1997 book (18th edition) has neither the table nor the radiation patterns.

At 20 meters, 0.1 wavelengths is 2 meters or 6.5 feet; 0.125, 8 feet; and .25, 16 feet. If your space and energy permit, 16 6.5 ft radials isn't much work. Total wire length is 32 meters or about 100 feet. 24 at 0.125 totals 60m (about 200 feet). Still not too bad. It's your choice, but the simplicity of a 1/4 wave vertical fed with 50 ohms and no network is very attractive by comparison. Stretch out the wires on top of the grass and pin them down to keep them out of the lawnmower and you're done. With 20 or so radials, the feedpoint will be very close to 50 ohms resistive.

"Brian Kelly" <kelly@dvol.com> wrote in message
news:d22b54c3.0211101643.66f4faaf@posting.google.com...
> I'm noodling a quick & dirty self-supporting low-profile 20m vertical
> which should be more better than the usual quarter wave thingey which
> requires an abysmal number of long radials to work half-decently. A
> Max-Gain 26 foot 40m fiberglass quad spreader wrapped with wire and
> dropped into a piece of pipe driven into the ground. Six ten foot

> radials. Hit it with volts instead of amps. Simple tuning network at
> the base fed with 50 ohm coax. Comes up close to a 3/8 wave tall
> vertical. What does the V-Plane pattern look like . . ? Being still
> modeling lame as I yam . . Is there a site out there which gets into
> the matter of patterns for oddball height verticals?? I think the old
> Antenna Books did but I can't find 'em on my CD version.
>
> Tnx,
>
> w3rv

2617. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 05:43:57 UTC
From: Larry Higgins <n9dx@attbi.com>
Message-ID: <x0GB9.62024$QZ.9394@sccrnsc02>
Source record: 131207

Roy's explanation is right on the money.

Another way to visualize it is to consider a circular loop. If you feed the bottom or the top, you have horizontal polarization. If you feed either side, it's vertical. And anywhere else, the polarization is slanted.

"Bill M" <"exray"@no spam-caribe.net> wrote in message news:utanvtfh7vkr53@corp.supernews.com...
> Roy Lewallen wrote:
> >
> >
> > Describing polarization as having vertical and horizontal
> > components is exactly analagous to describing a tilted line in terms of
> > X and Y, or a location as being so far to the east and so far to the
> > north of another. For example, if the E field is directed at an angle of
> > 45 degrees relative to vertical or horizontal, it's said to have equal
> > vertically and horizontally polarized components.
>
> Got it, thanks.
> -Bill
>
>
> > >
> > > I need some explanation help here. How can the polarization be partly
> > > vertical and partly horizontal?
> > > I can visualize circular, horizontal, vertical and all points in between
> > > but not a mix.
> > > Can someone explain this in simple terms for me?
> > >
> > > -Bill

2618. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 05:45:08 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <WZGcnTd8S4MdsUqgXTWc3A@comcast.com>
Source record: 131206

Roger,

I am not even sure where this thread started, but the whole issue of echoes on a transmission line is much better analyzed in the time domain. You can do a piece meal analysis, and draw a picture of what is happening. Or, look at what is happening with a 'scope. Put a 10 ns pulse into 10 feet, or more, of open circuited 9913, and you can see the pulse come back. The time it took to return tells you how long the coax was. Terminated it in a finite impedance other than Z0, and you can calculate its value. Clearly, if you were doing an experiment, you would repeat the pulse at some frequency, rather than send a single pulse. If the source impedance is not Z0, the echo gets re reflected from the source end, and you get a whole string of pulses going back and forth.

Here is an example of what I mean by piecemeal analysis. Take a 1VDC source, 50 ohm source impedance, and at time T=0 connect it to a 50 ohm transmission line that is shorted at the far end. At T=0, the voltage at the input to the line is 0.5V, because the source does not know that the line is shorted. When the voltage gets to the short, it is 100% reflected, but inverted in polarity. (You can't have voltage across a short). Now, when this reflection gets back to the source, the voltage at the source end of the cable goes to 0.5 - 0.5 =0V. There is no further reflection. So this is the steady state. What happened is that the DC voltage got converted to a pulse, whose width is twice the propagation time of the coax. This is not just academic, they used to actually produce pulses this way (and still may).

Not sure about the Great Pumpkin and the Easter Bunny, but reflections are real, and not a mathematical convenience. (I know you are not the one who said that)

Tam/WB2TT
"Roger Halstead" <rdhalste@tm.net> wrote in message
news:9ZAB9.157$cX3.108501@newshog.newsread.com...
>
> "JDer8745" <jder8745@aol.com> wrote in message
> news:20021116123930.21327.00000039@mb-cl.aol.com...
> > Howdy, Hammers
> >
> > The whole idea of forward and reflected power in the steady state is
only
> a
> > mathematical way to look at things.
> >
> > If the line is lossless, ALL the power going into the sending
> (transmitter) end

> > of the transmission line goes to the load (antenna) end and is partially
> > radiated and partially converted to heat by losses in the antenna.
>
> If the line is lossless, reflects half the power and we have a good
> match/line tuner at the rig, and the line is 2 wavelengths long, then:
> with 100 watts out of the transmitter, 100 watts reaches the antenna BUT,
50
> watts is reflected back to the transmitter where it is reflected back in
> phase with the outgoing power (and is in phase, but two complete cycles
> behind, so we now have 150 watts going forward. 150 watts gets tot he
> antenna and 75 watts is reflected back to the transmitter. where we now
have
> 100 + 75, or 175 watts forward. This cycle will repeat until we have 200
> watts to the antenna with 100 watts radiated and 100 watts from the
> transmitter itself.
>
> The thing to remember is that each reflection will be however many cycles
> behind the first with each sucessive cycle being farther displaced but in
> phase. (you could say they are out of phase by multiples of 360 degrees.
>
> In voice this is usually not a problem and not likely to be one on CW, but
> for data and TV it can be a big problem. Ghosts on TV with invalid
> checksums and other maladies with data.
> >
>
> --
> Roger Halstead (K8RI EN73)
> www.rogerhalstead.com
> N833R World's oldest Debonair? (S/N CD-2)
>
>
> > By playing like there is a forward component and a reflected component
it
> makes
> > the arithmetic easier.
> >
> > It's like the rotating magnetic fields in a single phase motor. There
is
> only
> > a polarity reversing field which does not rotate but this can be thought
> of as
> > two fields rotating in opposite directions. The motor will not start by
> > itself, but if you give it a spin in EITHER direction it will continue
to
> run
> > in that direction.
> >
> > The only reason I am mentioning the motor s that it shows how we often
use
> > mathematical equivalences for the real world happenings to make the

> arithmetic
> > easier.
> >
> > And that's all I have to say about that!
> >
> >
> > 73 de Jack, K9CUN
>
>

2619. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 05:59:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utec1uai29l061@corp.supernews.com>
Source record: 131208

Larry Higgins wrote:
> Roy's explanation is right on the money.
>
> Another way to visualize it is to consider a circular loop. If you feed the
> bottom or the top, you have horizontal polarization. If you feed either
> side, it's vertical. And anywhere else, the polarization is slanted.
>

That's not universally true, but depends on the size of the loop and the direction in which you're looking.

Roy Lewallen, W7EL

2620. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 06:00:28 UTC
From: Bill M <exray@no>
Message-ID: <utebtjn27g1f04@corp.supernews.com>
Source record: 131209

Larry Higgins wrote:
>
> Roy's explanation is right on the money.
>
> Another way to visualize it is to consider a circular loop. If you feed the
> bottom or the top, you have horizontal polarization. If you feed either
> side, it's vertical. And anywhere else, the polarization is slanted.

Well I understood it until you put it into terms of a circular loop.
Seems to me, if I understand the explanation, that a circular loop
should have equal amounts of vertical+horizontal e-field, resulting
effectively in a 45 degree angled polarized wave for us
vector-challenged types.

Help me out here.

-Bill

2621. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 06:51:28 UTC
From: Larry Higgins <n9dx@attbi.com>
Message-ID: <Q%GB9.61793$nB.4218@sccrnsc03>
Source record: 131210

OK. Put it this way: Connect the feedline to the loop. Then rotate the loop around a line through its center. The polarization rotates along with it. That's because you are applying the voltage at different angles. Hence the E-field rotates. Or consider a driven circular out in free space somewhere. Vertical and horizontal now have no meaning. There will be current maxima at the feedpoint and at the point opposite the feedpoint. There will be voltage maxima at the points 90 and 270 degrees from the feedpoint. It is the voltage maxima which determine the polarization, so as the loop rotates the polarization also rotates.

And Roy, you're right. It's not universally true. I was assuming a viewpoint in front of the array, and full wave loops.

> Well I understood it until you put it into terms of a circular loop.
> Seems to me, if I understand the explanation, that a circular loop
> should have equal amounts of vertical+horizontal e-field, resulting
> effectively in a 45 degree angled polarized wave for us
> vector-challenged types.
>
> Help me out here.
>
> -Bill

2622. Re: Superantenna MP-1 and Icom IC-746Pro

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 09:19:58 UTC
From: tcp277@yahoo.com
Message-ID: <c50a6464.0211170119.471446df@posting.google.com>
Source record: 131211

Bob.. Tried your suggestion, still nothing but noise. The guy down at
HRO Woodbridge, VA suggested the same thing, and couldn't believe it
when I told him I still got nothing..

Took my MP-1 and IC746 up to a friend's house in NJ this weekend - 2
acres, on a hill; so no noise there.. Worked like a charm - no problem
working my brother in Wisconsin.

Back at my apt. though.. nothing but noise.. Thanks for the
suggestions, but I guess it's time to get that real estate section
out. :)

73's

Chris/KC2DZE

Bob Miller <bxmillerSpamNot@texas.net> wrote in message
news:<oFPUPfZ25sWHUC0uZEtKrxlflVst@4ax.com>...
> tcp277@yahoo.com (C. Todd) wrote:
>
> >OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DD3EE9C.B9B6741F@ieee.org>...
> >> "C. Todd" wrote:
> >> > The problem, however, seems to be recieving.. My S-meter is always at
> >> > 50%, and there's just noise all over the band, on every band.. Nothing
> >> > but the absolute strongest signals make it through, and it's very
> >> > noisy when they do..
> >>
> >> Sounds like a typical vertical installed at my QTH.
> >
> >Hmm. Not encouraging.. Any advice as to perhaps make this work a
> >little better? Longer radials, perhaps? Also, would things be as bad
> >on the other end of things? Sorry for the naivete.. Just trying to
> >learn as I go..
> >
> >-Chris/KC2DZE.. 73's
>
> Just to make sure it's not the current antenna that's screwing things up, you
> might connect an odd length of wire to the center connector of your your rig's
> coax plug (for receiving only), and move the setup around the apartment, to see
> if that changes your noise problem. Try the rig on different AC plugs. You
> should be receiving something, other than the loudest signals -- unless you have
> a really serious noise problem.
>
> (You might also make sure your RF gain isn't turned down too low; that could
> give you a lot of hiss, with only the loudest signals getting through.)

>
> Bob
> k5qwg

2623. Re: Hamstick Dipole? Anybody using one?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 10:38:09 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0211170238.31b4d6e4@posting.google.com>
Source record: 131212

k9sqg@aol.com (K9SQG) wrote in message
news:<20021116084555.03468.00000264@mb-ma.aol.com>...
> With the double Hamstick dipole you will be unable to get the SWR down to a
> manageable level for the greater part of any band (i.e. you will have very
> limited bandwidth). The performance will be poorer than a mobile antenna on a
> car in most instances. But, it is an antenna, and it will radiate a small
> portion of the power. An antenna tuner is mandatory.
>
> Best of luck and 73s,
>
> Evan

Hi Evan,

So you mean that usually true mobiles antennas, like "screwdrives"
maybe give better results that "portable antenna", even if I use an
ATU ?

I am very interested in mobile antenna to work in the field, and from
what I have experimented, even with a high SWR some of my friends
reached antipodes (ok their signal is weak but their confirmed their
DX).

Of course as long as I am SWL my problem is different and I can work
with a high SWR if needed. But between a portable and a mobile
antenna, I do not really see big differences... so if you can help me
select one or another model, that could help me too.

Thanks for you explanation.

Thierry
ONL5183
http://www.astrosurf.com/lombry

2624. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 12:12:14 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <ar812s0usl@enews1.newsguy.com>
Source record: 131214

"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:ar6p6d$m7a$1@slb6.atl.mindspring.net...
> Cecil:
>
> [snip]
> "OC_CAM's_Razor" <Cecil.A.Moore@ieee.org> wrote in message
> news:3DD69F28.C873A613@ieee.org...
> > JDer8745 wrote:
> > > By playing like there is a forward component and a reflected component
> it makes
> > > the arithmetic easier.
> >
> > Playing like there is a forward component and a reflected component
> > also causes ghosting in TV systems and echos in telephone lines. So
> > it seems that the more we play like reality, the closer we get to
> > reality.
> > --
> > cheers, CAM http://www.qsl.net/w5dxp
> [snip]
>
> Heh, heh... Cecil, "there you go again"!
>
> TV ghosts and echos on telephone lines are signal "dispersions" [a.k.a
> intersymbol interference] and are
> actually caused by group delay distortions [i.e. variations in group delay
> from an absolute flat transport
> delay] in a forward transmission path not from "reflections".
>
> In the *steady state* on an unmatched transmission line system there is no
> forward and reflected energy
> sloshing about longitudinally from end to end of the transmission line.
> Rather there is only a transmitted
> energy that flows continuously toward, and is dissipatd in, the resitive
> part of the load impedance. On
> such a transmission line there is however a sloshing of energy back and
> forth differentially [i.e. from
> side to side or transversally rather than longitudinally.] between the
> electric and magnetic fields of the transmission
> lines' distributed capacitance and inductance.

the key words in this argument are 'steady state'.

as the problem is stated, in the 'steady state' you can ignore the forward
and backward parts of the wave and use the simpler formulas.

unfortunately, tv signals, phone signals, ham transmissions, etc rarely if ever are at a 'steady state'. every change in the transmitted signal is a transient and can be tracked by the forward and reflected waves, so even if you are transmitting a plain black or white screen on a tv there is a transient every scan line for the sync and retrace which causes reflections and ghosts. due to the high repetition rate of transients and the relatively large size of the feedlines and antennas the system is never at a 'steady state' condition where you can ignore the reflected waves.

2625. Undecided.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 12:31:31 UTC
From: Ronald J Bilodeau <va3sgr@vianet.ca>
Message-ID: <3DD78C23.78780992@vianet.ca>
Source record: 131220

Hi, I would like to know which is the best antenna between th Comet GP-6
and the Diamond X-200A.
Also Is the Anli A100B as good as the Diamond X50A because it is only 3
feet tall?
Thank you very mutch.
RON VA3*SGR

2626. converting uV/m values to mW values

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 12:35:24 UTC
From: danny_g@eldarshany.com
Message-ID: <d5eb4678.0211170435.3b9802e8@posting.google.com>
Source record: 131213

Hi all:

American standard requires emission values in uV/m while the European standard
is measuring mW.
I am looking for easy way to convert FCC 15's uV/m values to the European mW.
Thanks
Danny (danny_g@eldarshany.com)

2627. lisenced low power RF frequency in USA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 12:44:51 UTC
From: danny_g@eldarshany.com
Message-ID: <d5eb4678.0211170444.11f12982@posting.google.com>
Source record: 131215

Hi all:
I am looking for a low power frequency which enables operating
telemetry device in the USA in a distance of 50 to 500 yards. The
433.92Mhz is not applicable! Any other suggestions?
What are the limitations?
Thanks
Danny

2628. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 12:57:09 UTC
From: Bill M <exray@no>
Message-ID: <utf4aic45m7e0f@corp.supernews.com>
Source record: 131217

Larry Higgins wrote:
>
> There will be voltage maxima at the points 90 and 270 degrees from the
> feedpoint. It is the voltage maxima which determine the polarization, so as
> the loop rotates the polarization also rotates.

Ok. For graphic purposes then, can I assume the two max voltage points
operating in tandem to essentially create an e-field oriented with this
90-270 line?

-Bill

2629. Re: Radiation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 13:08:58 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211170508.66cf0878@posting.google.com>
Source record: 131216

OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DD6F38A.5E3DB678@ieee.org>...
> Art Unwin KB9MZ wrote:
> >
> > OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote:
> > > If the fields are completely confined inside the tube and if
Cecil

> > conserving energy by not radiating in an UNDESIRED direction tho I may
> > be creating a loss because of the impedance mismatch of the circuit
> > within the dipole.
> > Did I go astray from what you was meaning?
>
> Well, you obviously will need to ensure that no currents flow on the
> outside of that particular piece of tubing. How are you going to do that?
> Install #77 toroids up and down the entire length?

No Cecil, in the past in combination designs I have placed
variable capacitors within the boom for weather protection.
On this set up I am starting with just a dipole.
The loop or 'parallel circuit' at the center is now on the inside
the dipole along with the variable capacitor emerging thru
the sides of the dipole via insulated holes
I was thinking that the extremities of the INSIDE of the dipole
would not have any current flow , only where an inserted circuit exists.
Another one of my Rube Goldburg experiments with self imposed challenges.
Thanks for your inputs on this odd setup.
Art

2630. Re: Radiation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 13:23:31 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211170523.5971b1e@posting.google.com>
Source record: 131218

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<27665-3DD6FDD1-34@storefull-2318.public.lawson.webtv.net>...
> Cecil wrote:
> "How are you going to do that (keep the loop shield from radiating)?"
>
> I suggested on a previous thread that Art mount his single-turn loop
> perpendicular to the dipole so its radiation would support the dipole`s
> radiation rather than detract. Art may have a better idea.
>
> Best regards, Richard Harrison, KB5WZI

Yes, your previos comment did have an impact because the
radiation of the loop oddly enough has a large impact on
radiation especially down at the longwave portions.
I am investigating more to see if I can make that
omni directional.
Regards
Art

2631. Re: Need most efficient 160 m antenna design for small lot

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 13:39:32 UTC
From: denton <denton@oregontrail.net>
Message-ID: <ar866b$5n7$1@news.apaynet.com>
Source record: 131219

How about posting them here, please! There a "lot" of us that have a ---lot disability!
Andy Blackburn <andyblackburn3@comcast.net> wrote in message news:lJCdnWQOpcxuGEugXTWcoA@comcast.com...
> Thanks for everyones input......including those that did not post to this
> newsgroup.
> I will try several of the ideas presented to me and see which works the
> best.
>
> 73,
>
> Andy
>
>
>

2632. Re: converting uV/m values to mW values

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 14:28:47 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <xINB9.60$8i7.32245@news20.bellglobal.com>
Source record: 131221

danny_g@eldarshany.com
...convert FCC 15's uV/m values to the European mW.

You could convert to mW/(m^2); assuming that you're in the far field.

2633. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 14:35:48 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <5PNB9.61$8i7.34548@news20.bellglobal.com>
Source record: 131222

"David Robbins"
> ...key words in this argument are 'steady state'.
> ...in the 'steady state' you can ignore the forward
> and backward parts of the wave and use the
> simpler formulas.

Exactly. The assumption being that if two cycles of the sin wave appear to be exactly the same, then they may be considered to be 'equal'. It is an assumption.

2634. counterpoise wires

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 15:03:03 UTC
From: Simon <simon@nothing.net>
Message-ID: <seOB9.11080$B92.1112770@newsfep2-win.server.ntli.net>
Source record: 131223

How precise does the length of a quarter wave counterpoise wire have to be?
Do I need to take the velocity factor into account?

Simon

2635. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 15:41:20 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211170741.5655d346@posting.google.com>
Source record: 131224

Sory that I didn't rrespond earlier Fred,
somehow I missed it.
I would imagine that you have a dipole that meanders
somewhat and probably not at an ideal height such
that the radiation pattern is somewhat omni direction.
The aproach I would take if your interest is purely
80 metres ia to add a parallel circuit about the center point.
Initially I would start around 6 foot from the center moving
a distance of say 10 inches from the dipole and then moving to
the other side of the dipole center before rejoining the dipole.
Any drooping that may occur should not affect anything.
If you leave the feed point in the center the impedance will
change more than you would like (it will become more reactive)
so I would suggest that you feed at each side where the parallel
circuit starts and finishes.
The impedance will be high at this starting point so add
a transformer for starters.
When the pattern starts to take on a bidirectional pattern
you will see the band impedance flatten out some what, that is if the
parallel circuit is around the correct length, at this point I
would suggest that you then move the feed points outwards a bit more
until you have the right transformer ratio set up.
I haven,t worked it all out but it will be a lot easier that adding
parallel line feeds because wire size will not come into play.
If you have any questions regarding this aproach by all means
use the private E mail route. I would caution you however that moving
to a more directional pattern may well not be to your liking.
You should be able to model this form before hand to get closer
to the correct dimensions rather than just trusting my hunches,
it could be a wothwhile time saver.
Good luck with the project
Regards
Art

d Hambrecht Sr." <w4jle@charter.net> wrote in message
news:<uta7e4337m4k8b@corp.supernews.com>...
> You should know by now that there are two kinds of folks on newsgroups, the
> first come seeking/sharing knowledge and the second revel in making any
> information as obtuse as possible and can prove that no antenna will ever
> work under the conditions stated.
>
snip>
> How about some specifics on your approach. Those of us in the first group
> would appreciate it.

>
> --
> For Admiral Poindexter's folks:
> Bomb, anthrax, attack, acid, hijack, skyjack
> sniper, plutonium, nuclear, Big Mac, jihad
> Democrats, terror, Howdy Doody, Oprah
>
> "Those that sacrifice freedom for security deserve neither"
>
>
> "Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
> news:85ed38d.0211150619.2fcc8f63@posting.google.com...
> > No.Mentioned it some years ago on this group but got poo hewd with
> > lots of laughter and derision so I dropped the subject. The group then
> > turned on the
> > Hex beam manufacturer which thus gave me refuge.
> > Regrds
> > Art
> >
> > >
> > > Art Unwin KB9MZ wrote:
> > > > Roy Lewallen <w7el@eznec.com> wrote in message
> news:<ut816qrntq8e78@corp.supernews.com>...
> > > >
> > > > >How great was this bandwidth improvement?
> > > > >>
> > > > >>Roy Lewallen, W7EL
> > > > >
> > > >
> > > > > I seem to remember that it more than doubled the bandwidth
> > > > > Art
> > > > >
> > > >
> > > > >>Art Unwin KB9MZ wrote:
> > > > >>
> > > > >>>Looking at some older notes of mine I ran across
> > > > >>>what I consider to be a better feeding mechanism
> > > > >>>for antennas.It never gained interest even tho
> > > > >>>nowadays modeling is widespread. Can anybody
> > > > >>>point out why it is not in general use for technical reasons.
> > > > >>
> > > > > snip.
> > > > >
> > > > >>>I would prefer no spamming this time around if possible against
> > > > >>>introducing a new idea.
> > > > >>>Regards
> > > > >>>Art KB9MZ......XG
> > > > >>>Regards
> > > > >>>Art
> > > > >>

2636. Re: counterpoise wires

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 15:51:57 UTC
From: Mike Luther <mike.luther@ziplog.com>
Message-ID: <3DD7BB1C.AFEC2FA@ziplog.com>
Source record: 131225

Simon ..

Simon wrote:

> How precise does the length of a quarter wave counterpoise wire have to be?
> Do I need to take the velocity factor into account?
>
> Simon

When I first installed my elevated 4-Square for 40 meters, I cut the radials to the so-called formula length, whatever that was. These are all bonded to the actual vertical element at the base and the element is fed by a gamma match section. Years later, I happened to cut one of them loose and stick a little 3/4 inch diameter three turn loop in there which bridges a common antenna insulator. I stick a grid dip meter coil into the little loop and look for the reasonant frequency of a loop antenna for example. Neat way of determining in practice just what is apparently really going on about what frequency a given loop is at.

Well, as I did this on my sample radial on the elevated 4 Square, surprise! It was WAY low in frequency for the length of the wire as calculated! In fact, it went from about 33-odd feet, I dunno the old value, down to almost 31 feet after I folded back the tip end and shortened it down by folding it back on itself at the insulator support out at the tip! And that at the DX part of the band right down at 7.0 Mhz, which is all I care about anyway for this array.

I was very surprized to find the every single one of the radials I had up there was almost exactly the same scenario. I'm sure that if there was enough time to model it all and so on with a program, the answer would flip out of the computer to match what happened in practice. But the discovery has just re-inforced the experience teach-Mike, that the best thing to do is use the simple tools and techniques to check the stuff as installed.

I suspect that you'll find at least somewhat of the same effect in your work, but heck, maybe not. Just a thought.

W5WQN

--

--> Sleep well; OS2's still awake! ;)

Mike Luther

2637. Mounting whip antenna on truck for mobile HF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 16:07:00 UTC
From: kb1hfp@arrl.net
Message-ID: <c4a1d362.0211170807.d7a9a9b@posting.google.com>
Source record: 131226

Hi,
I'm currently planning a mobile HF setup for my truck. I have an IC-706MKIIG installed that I've been using with a mag mount for 2m and 70Cm. My plan is to purchase the ICOM AH-4 tuner and use it with a stainless steel CB whip to tune 6m through 40m.
The part that I'm unsure about, which may affect my purchase decision, is how to mount the antenna system. My truck is a 2000 Ford Ranger with a plastic bed-liner and a snap-on leather bed cover. My original plan was to mount the AH-4 inside the wall of the bed and the antenna on the bumper. However, I'm concerned that I won't be able to get a good ground for the tuner, and that the position of the antenna will interfere with opening the tailgate.
I'd be greatly appreciative of any specific advice for mounting the tuner and antenna, or inexpensive alternatives to the CB whip that would work well with the combo of the 706 and AH-4.
Thanks for reading,
Jamie, KB1HFP

2638. Re: Undecided.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 16:12:33 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DD7BFEC.7000806@tampabay.rr.com>
Source record: 131227

hey ron
what you need to look at is the DB rating make sure they both compare to
either DBD or DBI dont try to compare a DBD to a DBI it will give you a
headache
when i was looking into getting a dualband base antenna i looked at
comet and diamond and a few others and i found comet was better had
higher gain for nearly $100 less than the diamond
good luck

Ronald J Bilodeau wrote:
> Hi, I would like to know which is the best antenna between th Comet GP-6
> and the Diamond X-200A.
> Also Is the Anli A100B as good as the Diamond X50A because it is only 3
> feet tall?
> Thank you very mutch.
> RON VA3*SGR

2639. Re: Mounting whip antenna on truck for mobile HF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 16:19:36 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DD7C193.7040309@tampabay.rr.com>
Source record: 131228

hey james
i dont know how you feel about this but go to radio shack and buy a ball mount it would mount on the trucks fender it requires you drill 3 or 4 small holes and one larger hole and then you attach the feedline on the inside of the fender and you could also attach the AH4 there as well as long as it doesnt get wet as for the bedliner you could always cut away a section of it so you could mount the tuner on the inside on the fender wall and be a real short run to the ball mount on the outside of the fender good luck and let me know how it works i am toying with a similar idea but i have a 97 mercury sable that is mostly plastic so i would be interested in knowing how well the AH4 works with the stainless steel whip

James wrote:
> Hi,
> I'm currently planning a mobile HF setup for my truck. I have an
> IC-706MKIIG installed that I've been using with a mag mount for 2m and
> 70Cm. My plan is to purchase the ICOM AH-4 tuner and use it with a
> stainless steel CB whip to tune 6m through 40m.
> The part that I'm unsure about, which may affect my purchase decision,
> is how to mount the antenna system. My truck is a 2000 Ford Ranger
> with a plastic bed-liner and a snap-on leather bed cover. My original
> plan was to mount the AH-4 inside the wall of the bed and the antenna
> on the bumper. However, I'm concerned that I won't be able to get a
> good ground for the tuner, and that the position of the antenna will
> interfere with opening the tailgate.
> I'd be greatly appreciative of any specific advice for mounting the
> tuner and antenna, or inexpensive alternatives to the CB whip that
> would work well with the combo of the 706 and AH-4.
> Thanks for reading,
> Jamie, KB1HFP

2640. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 16:38:57 UTC
From: Larry Higgins <n9dx@attbi.com>
Message-ID: <BCPB9.59190$NH2.3165@sccrnsc01>
Source record: 131229

"Bill M" <"exray"@no spam-caribe.net> wrote in message
news:utf4aic45m7e0f@corp.supernews.com...
> Ok. For graphic purposes then, can I assume the two max voltage points
> operating in tandem to essentially create an e-field oriented with this
> 90-270 line?
>
> -Bill

That's right. Those two maximum voltage points reach their maximum voltage at the same time, with opposite polarity. Hence there's a large potential difference between them. That's why they determine the polarization of the e-field.

2641. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 16:57:20 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD7CA70.6A1D3D89@ieee.org>
Source record: 131230

Bill M wrote:
> Well I understood it until you put it into terms of a circular loop.
> Seems to me, if I understand the explanation, that a circular loop
> should have equal amounts of vertical+horizontal e-field, resulting
> effectively in a 45 degree angled polarized wave for us
> vector-challenged types.
>
> Help me out here.

Could it be that one of you is talking about a vertical loop and
one of you is talking about a horizontal loop?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2642. Re: apex up, or down, for best DX'ing?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 17:03:11 UTC
From: Bill M <exray@no>
Message-ID: <utfins47aks379@corp.supernews.com>
Source record: 131232

Larry Higgins wrote:
>
> "Bill M" <"exray"@no spam-caribe.net> wrote in message
> news:utf4aic45m7e0f@corp.supernews.com...
> > Ok. For graphic purposes then, can I assume the two max voltage points
> > operating in tandem to essentially create an e-field oriented with this
> > 90-270 line?
> >
> > -Bill
>
> That's right. Those two maximum voltage points reach their maximum voltage
> at the same time, with opposite polarity. Hence there's a large potential
> difference between them. That's why they determine the polarization of the
> e-field.

By George, I think I've got it!
Thanks,
Bill

2643. Re: Mounting whip antenna on truck for mobile HF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 17:07:49 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD7CCE5.6618B1D4@cwis.net>
Source record: 131231

Jamie,
By the sound of it, you aren't too enthusiastic about
holes in your truck. If that's so, then you have a couple
of alternatives for mounting an antenna. You can always
put it on the bumper either with some type of bumper mount,
or drill a hole and use a mount that bolts up solid. With
the bumper mount I'd certainly run a ground strap to the
frame of the truck. As you said, with out careful planning
getting the tailgate down might be a problem, though.
There is also such a thing as a 'stake' hole mount. It
fits in one of the 'stake' holes on the bed sides. I would
imagine that will depend on how the bed cover is made, and
how willing you are to modify it.
Mounting the tuner isn't that much of a problem, I would
think. If it isn't mounted directly to the body of the truck
then you will have to use a ground strap (as in mount it to
the bed liner?).
And a word about using a 'whip' on HF. The lower you go
in frequency, the worse it will work. 6 and 10 meters shouldn't
be a problem, but anything lower than that will be. It will
tune, but your signal won't be much to brag about at all. By the
time you get down to 40 meters, you'll be lucky to be heard (the
HF version of a 'rubber ducky'), the whip is just not enough
antenna...
Good luck and have fun
'Doc

2644. Re: counterpoise wires

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 17:11:10 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD7CDAE.F69B3C4F@cwis.net>
Source record: 131233

Simon,
Counterpoise length isn't critical, but you should
at least be in the 'ball park' with it. I wouldn't
bother about the velocity factor. A few inches either
way won't make a lot of difference.
'Doc

2645. Re: counterpoise wires

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 17:11:28 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <2czXPQ3kHhOFdRvnqIz1m7LOIqwo@4ax.com>
Source record: 131234

"Simon" <simon@nothing.net> wrote:

>How precise does the length of a quarter wave counterpoise wire have to be?
>Do I need to take the velocity factor into account?
>
>Simon
>
>
>

If buried in the earth, not very precise. If elevated, very precise -- you'll need to adjust the length, then try the rig out in transmit mode and check the swr. Keep adjusting until swr is minimal.

Bob
k5qwg

2646. Re: Mounting whip antenna on truck for mobile HF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 17:23:27 UTC
From: TG <ab7rs@arrl.net>
Message-ID: <utgbfapjmffr8a@corp.supernews.com>
Source record: 131261

My 706 in the 2001 Ranger I drive uses a Tarheel screwdriver antenna mounted on the rear bumper. One small hole in the bumper and then a bracket higher up coming out of the crack where the tailgate closes. This is out of the way of the gate and doesn't hurt visibility of the taillight like you would think. If you want pics of the installation email me. Not sure where to mount the tuner but realize this setup WILL NOT work near as well as a screwdriver or other resonant antenna.TG

"James" <kb1hfp@arrl.net> wrote in message
news:c4a1d362.0211170807.d7a9a9b@posting.google.com...
> Hi,
> I'm currently planning a mobile HF setup for my truck. I have an
> IC-706MKIIG installed that I've been using with a mag mount for 2m and
> 70Cm. My plan is to purchase the ICOM AH-4 tuner and use it with a
> stainless steel CB whip to tune 6m through 40m.
> The part that I'm unsure about, which may affect my purchase decision,
> is how to mount the antenna system. My truck is a 2000 Ford Ranger
> with a plastic bed-liner and a snap-on leather bed cover. My original
> plan was to mount the AH-4 inside the wall of the bed and the antenna
> on the bumper. However, I'm concerned that I won't be able to get a
> good ground for the tuner, and that the position of the antenna will
> interfere with opening the tailgate.
> I'd be greatly appreciative of any specific advice for mounting the
> tuner and antenna, or inexpensive alternatives to the CB whip that
> would work well with the combo of the 706 and AH-4.
> Thanks for reading,
> Jamie, KB1HFP

2647. Separation between multiple 2M J-Poles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 17:43:08 UTC
From: Charles Dee Rice <cdrice@pobox.com>
Message-ID: <3DD7D52C.242E686@pobox.com>
Source record: 131235

I've seen several discussions here and through what I've found via search engines concerning mounting multiple Yagi antennas, but I haven't had much luck concening information for mounting multiple J-Poles.

I have moved to a new house and am "reconstrucing" my shack and of course the antenna farm; at this house I have a great place to rather inconspicously mount a couple of 2M J-Poles on my furnance chimney -- but I've never had them in this proximity before and need to decide how far apart to space them.

Would the minimum 1/2 wavelength vertical separation apply to these antennas as well? Would the horizontal distance between masts factor in? Depending upon which corners I mount each antenna, I'd have 23 1/4", 28 1/2" or 36 1/2" horizontal separation.

Has anyone made or seen a J-Pole with multiple radiators constructed from a single mast? Perhaps I could just modify my existing J-Poles and essentially stack them on top of each other, using a single mast?

Does the latest Antenna Book address things like this? My latest copy is several revisions old, and doesn't have anything specifically about multiple J-Poles.

One J-Pole is for use on my packet rig, which stays on all the time, but of course is only TXing for small bursts; the other J-Pole would be for my voice rig. Both rigs run 50W max, but normally around 5W.

Thanks for any advice or online resources anyone can point my to!

- Chuck

73 DE KC4KQE

--
| Charles Dee Rice ------------------------------------ cdrice@pobox.com |
| "So - Drifting through the dark - The sympathy - Of night's mercy - |
| Inside my heart - Is your life the same - Do ghosts cry tears - |
| Do they feel years - As time just goes on and on and on..." |

2648. Re: Undecided.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 18:35:57 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <hkRB9.68632$1O2.4783@sccrnsc04>
Source record: 131236

That's correct, buy the one with the most ambitious advertising hype.
"Dennis Kaylor" <k4oxg@tampabay.rr.com> wrote in message
news:3DD7BFEC.7000806@tampabay.rr.com...
> hey ron
> what you need to look at is the DB rating make sure they both compare to
> either DBD or DBI dont try to compare a DBD to a DBI it will give you a
> headache
> when i was looking into getting a dualband base antenna i looked at
> comet and diamond and a few others and i found comet was better had
> higher gain for nearly $100 less than the diamond
> good luck
>
> Ronald J Bilodeau wrote:
> > Hi, I would like to know which is the best antenna between th Comet GP-6
> > and the Diamond X-200A.
> > Also Is the Anli A100B as good as the Diamond X50A because it is only 3
> > feet tall?
> > Thank you very mutch.
> > RON VA3*SGR
>

2649. Re: Mounting whip antenna on truck for mobile HF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 18:42:08 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD7E300.7A66ECB7@ieee.org>
Source record: 131237

'Doc wrote:
> By the sound of it, you aren't too enthusiastic about
> holes in your truck. If that's so, then you have a couple
> of alternatives for mounting an antenna.

My GMC Pickup has three holes for trailer hitch ball mounts.
I just use one of those holes with a threaded rod for my
mobile antenna mount.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2650. Re: counterpoise wires

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 18:44:29 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD7E38D.2FC4640F@ieee.org>
Source record: 131238

'Doc wrote:
> Counterpoise length isn't critical, but you should
> at least be in the 'ball park' with it. I wouldn't
> bother about the velocity factor. A few inches either
> way won't make a lot of difference.

Counterpoise length is somewhat akin to off-center feeding
a dipole. Being off-center by a relatively small amount
doesn't much matter.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2651. schematic Alan HP3050

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 18:51:19 UTC
From: Wezyr <pwol@poczta.onet.pl>
Message-ID: <ar8oi9pta1@news.onet.pl>
Source record: 131240

I'm find elektronic schematic Alan HP3050

THX

2652. Re: Mounting whip antenna on truck for mobile HF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 18:52:11 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ruoftugvbeskvhanuqrcffrio0toampgb7@4ax.com>
Source record: 131239

On 17 Nov 2002 08:07:00 -0800, kb1hfp@arrl.net (James) wrote:

>Hi,
>I'm currently planning a mobile HF setup for my truck. I have an
>IC-706MKIIG installed that I've been using with a mag mount for 2m and
>70Cm. My plan is to purchase the ICOM AH-4 tuner and use it with a
>stainless steel CB whip to tune 6m through 40m.
>The part that I'm unsure about, which may affect my purchase decision,
>is how to mount the antenna system. My truck is a 2000 Ford Ranger
>with a plastic bed-liner and a snap-on leather bed cover. My original
>plan was to mount the AH-4 inside the wall of the bed and the antenna
>on the bumper. However, I'm concerned that I won't be able to get a
>good ground for the tuner, and that the position of the antenna will
>interfere with opening the tailgate.
>I'd be greatly appreciative of any specific advice for mounting the
>tuner and antenna, or inexpensive alternatives to the CB whip that
>would work well with the combo of the 706 and AH-4.
>Thanks for reading,
> Jamie, KB1HFP

Hi Jamie,

My buddy has no problem putting the drill to metal; but he also has a very useful mount with one of those large tool chests (it holds the gear too) that ride the rails behind the cab. He chose the gull-wing door style so that the middle third could easily support a whip (military surplus with a hellacious insulator and vivid yellow decal warnings of death on contact).

73's
Richard Clark, KB7QHC

2653. Re: lisenced low power RF frequency in USA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 19:08:53 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <9rpftuo0jufcjutjcskoi05b5u69er409a@4ax.com>
Source record: 131241

On 17 Nov 2002 04:44:51 -0800, danny_g@eldarshany.com
(danny_g@eldarshany.com) wrote:

>Hi all:
>I am looking for a low power frequency which enables operating
>telemetry device in the USA in a distance of 50 to 500 yards. The
>433.92Mhz is not applicable! Any other suggestions?
>What are the limitations?
>Thanks
>Danny

Hi Danny,

Going to the source is always good. In matters of transmitting
anything, you approach the FCC.

At some point you will have to file something, for your reference:
http://www.fcc.gov/formpage.html

At some point prior, you will want to figure out just which allocation
you qualify for. Consult:
http://www.fcc.gov/oet/spectrum/table/fcctable.pdf

73's
Richard Clark, KB7QHC

2654. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 19:38:04 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <uarftucfmn6tn2u6dnnrbnji2501ejn8ir@4ax.com>
Source record: 131242

On Sat, 16 Nov 2002 20:41:13 -0400, Bill M <"exray"@no
spam-caribe.net> wrote:

>Roy Lewallen wrote:
>>
snip
>> that you'd never see the reflection.
>
>Roy,
snip
>Thats plenty visible on an analog signal and can wreak havoc on a
>digital or data signal.
>-BM

Hi All,

I was struck by the nature of appealing to the senses to make a technical point. Seeing is believing and yet sight is fraught with the most potent of problems: interpretation.

Blind at the lab bench, yes, with a standard configuration of instruments associated with Watt levels, the reflections being discussed are invisible to the process. Or more to the matter, imperceptible to the investigator.

Dazed in the living room, yes, as Bill so compelling argued, we find that the instrumentation available is exquisitely tuned to this particular spectrum of noise. This instrumentation would go to the rails if driven with Watt level signals.

73's
Richard Clark, KB7QHC

2655. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 19:54:56 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <0bsftu8dfda0gjs2s2ai34h881opc9r7u6@4ax.com>
Source record: 131243

On Sat, 16 Nov 2002 19:51:21 -0500, "Peter O. Brackett"
<ab4bc@ix.netcom.com> wrote:

>Heh, heh... Cecil, "there you go again"!
>
>TV ghosts and echos on telephone lines are signal "dispersions" [a.k.a
>intersymbol interference] and are
>actually caused by group delay distortions [i.e. variations in group delay
>from an absolute flat transport
>delay] in a forward transmission path not from "reflections".
>

Hi Peter,

You lost it at the gate. You cannot explain Cecil's easily understood
and experienced example with a misapplication of group delay.
Dispersion and group delay result in an easily recognized and visible
effect called "smear" that is distinctly different from the visible
effect described by Cecil.

Then again. On reflection of the many occasions when you posted the
group pool-side, drink in hand; then I suspect many "ghosts" you see
on the pool-side TV may have some bleariness. This constitutes
Bacardi group delay (more a problem of low-Q synapses than
Transmission Lines). ;-)

73's
Richard Clark, KB7QHC

2656. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 19:58:04 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <o6tftughe7i2tppluv0fa5hp6e5msdlp54@4ax.com>
Source record: 131244

On Sat, 16 Nov 2002 17:22:30 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>So when you say the the power is "two complete cycles behind"

Hi Roy,

This is the modulation power being discussed in cycles of symbols.

73's
Richard Clark, KB7QHC

2657. horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 20:05:44 UTC
From: Lynn Jefferson <ri@xu.orgnospam>
Message-ID: <171120021605443205%ri@xu.orgnospam>
Source record: 131245

Lots of flat land. Not inclined to build a tower. Considering a horizontal wire along top of fenceposts, held apart from wood by electric fence type insulators. Would this type of antenna (end-fed or dipole) be at all useful? I realize the height is less than optimal but I am not willing to add any man-made structures to the beautiful landscape apart from what is already here.

2658. Re: converting uV/m values to mW values

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 21:28:37 UTC
From: richardharrison@webtv.net
Message-ID: <4301-3DD80A05-89@storefull-2317.public.lawson.webtv.net>
Source record: 131247

Danny wrote:
"---microvolts per meter values to the European mW."

Convert volts per meter into watts per square meter by squaring the volts and dividing by 377 ohms (resistance of space).

Best regards, Richard Harriaon, KB5WZI

2659. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 21:43:22 UTC
From: restamp@hotmail.com
Message-ID: <_3UB9.29581$2m.4589904@twister.columbus.rr.com>
Source record: 131246

In article <171120021605443205%ri@xu.orgnospam>,
Lynn Jefferson <ri@xu.orgnospam> wrote:
>
>Lots of flat land. Not inclined to build a tower. Considering a
>horizontal wire along top of fenceposts, held apart from wood by
>electric fence type insulators. Would this type of antenna (end-fed or
>dipole) be at all useful? I realize the height is less than optimal but
>I am not willing to add any man-made structures to the beautiful
>landscape apart from what is already here.

The situation you describe would seem ideal for constructing a
beverage antenna. Unfortunately, beverages are normally used
only for receiving. Plug "beverage antenna" into google and
see what you think.

Rob

2660. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 22:09:39 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <ar9433ndd1@slb2.atl.mindspring.net>
Source record: 131248

Jeff et al:

[snip]
"J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote in message
news:5PNB9.61$8i7.34548@news20.bellglobal.com...
> "David Robbins"
> > ...key words in this argument are 'steady state'.
> > ...in the 'steady state' you can ignore the forward
> > and backward parts of the wave and use the
> > simpler formulas.
>
> Exactly. The assumption being that if two cycles of the sin wave appear
to
> be exactly the same, then they may be considered to be 'equal'. It is an
> assumption.
[snip]

Heh, heh... There ya'll go again!

But... but... guys you can't have it both ways! Either CW has reflections
or it does not, now which is it?

Whenever you are using your so-called SWR meters to adjust your
antennas/tuners etc...

Which meters apparently ya'll claim are resolving the forward and reflected
components
aren't you measuring with a continuous wave [CW] signal?

If, as ya'll assert that the steady state is not a valid method of
evaluating reflection mechanics.

How then does the SWR meter work? Will it work at DC? Can it be made to
work at DC?

What???

--Peter K1PO
Indialantic By-the-Sea, FL.

2661. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 22:27:08 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-1711021427080001@bni030qny8kc.bc.hsia.telus.net>
Source record: 131249

In article <ar9433ndd1@slb2.atl.mindspring.net>, "Peter O. Brackett" <ab4bc@ix.netcom.com> wrote:

> How then does the SWR meter work? Will it work at DC? Can it be made to
> work at DC?

I made an SWR meter once using resistors, a diode, and a capacitor. Some people might have called it a Wheatstone bridge. I'm sure it would have worked at DC, and the capacitor would have been less busy.

> What???

No -- where and when? (Answer: At W8LT, The Ohio State University amateur radio club, in the late 1950s.)

The thing was intended to be used to check the calibration of a more conventional "SWR meter" that had been constructed by snaking a short piece of hookup wire underneath the braid of a section of coaxial cable.

David, ex-W8EZE

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

2662. Re: Autek or MFJ ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 22:37:02 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dd81a12$0$86535$ba620e4c@news.skynet.be>
Source record: 131250

Hi Reg,

Check this one from Autek, it seems to measure a bit more than RF1 in HF:

http://www.autekresearch.com/va1.htm

73 de ON5MJ - Jacques.

2663. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 22:57:18 UTC
From: k9sqg@aol.com
Message-ID: <20021117175718.28699.00000008@mb-fa.aol.com>
Source record: 131251

Had you used a valid email address my response would have reached you, hi.
Just don't have time to retype or resend.

73s,

Evan

2664. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 23:15:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utg8nl1d1kd56a@corp.supernews.com>
Source record: 131252

Oh, I thought he was talking about steady state, with no modulation.
What kind of modulation are we assuming? If it's TV, you could assume a
"Cycle of symbols" to be a line, field, or frame. Do you mean you'd have
a delay of two full lines, fields, or frames?

Roy Lewallen, W7EL

Richard Clark wrote:
> On Sat, 16 Nov 2002 17:22:30 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>So when you say the the power is "two complete cycles behind"
>
>
> Hi Roy,
>
> This is the modulation power being discussed in cycles of symbols.
>
> 73's
> Richard Clark, KB7QHC

2665. Re: counterpoise wires

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 23:24:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utg99p8dfp3nba@corp.supernews.com>
Source record: 131253

Like so many other things, it depends. Usually, it's not critical at all. The only time I know of when it's important is when you're using an elevated radial system fairly close to the ground. And in that case, it's ok to have them too short, but efficiency suffers if they get too long. You can determine what a resonant length is by erecting or modeling a dipole at the same height as your radials, and adjusting it for resonance. The length of a resonant radial will be half this length. If it's close to the ground, this length will be considerably shorter than a resonant length in free space. If you're using an elevated radial system, I recommend that you don't make the radials longer than the resonant length. If you're so inclined, you can see by modeling what the impact on efficiency is by making the radials too long.

Roy Lewallen, W7EL

Simon wrote:
> How precise does the length of a quarter wave counterpoise wire have to be?
> Do I need to take the velocity factor into account?
>
> Simon
>
>
>
>

2666. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 23:37:09 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <6f9gtuk742kokd41eog6r4de41nsila55a@4ax.com>
Source record: 131254

On Sun, 17 Nov 2002 15:15:03 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Oh, I thought he was talking about steady state, with no modulation.
>What kind of modulation are we assuming? If it's TV, you could assume a
>"Cycle of symbols" to be a line, field, or frame. Do you mean you'd have
>a delay of two full lines, fields, or frames?
>
>Roy Lewallen, W7EL

Hi Roy,

Yeah, pretty much on a line basis for nearby reflections when talking
about TV. Less would suggest a fraction of a line as an arbitrary
symbol element (as in your less than 62ï¿½S reflection example). For
digital traffic, slightly more than half a bit would seem to be the
metric of the day.

20 odd years ago, computer board builders began to suffer mismatched
connections in the backplane or peripherals and started to pay
attention to reducing SWR. This was even before the IBM PC 4.77 MHz
standard. Some old hands may remember the 9 resistor SIP that
terminated the last hard drive's connection.

73's
Richard Clark, KB7QHC

2667. TH-3 JNR?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 23:39:46 UTC
From: richard.uk@talk21.com
Message-ID: <4d609731.0211171539.5cb7209e@posting.google.com>
Source record: 131255

Hello

Can someone tell me the difference between the TH-3JNR and the
TH-3JRS, if there is any. There is also the TH-3JR. Are all of these
the same model but just with different names??

I think they are the same but can't seem to find anything on the web.

Thanks

Richard

2668. Ham 4 Motor?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 23:46:00 UTC
From: richard.uk@talk21.com
Message-ID: <4d609731.0211171546.291bb3c3@posting.google.com>
Source record: 131256

Hello

Has anyone got a Ham 4 rotator motor or the whole thing that they
don't want or will sell cheaply?

Richard

2669. Inverted "V" Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 23:51:16 UTC
From: Rick Adams <ke8hh@qsl.net>
Message-ID: <E408FA040469F3C9.6ED58BD21F5481DB.3C636341B1A37E0F@lp.airnews.net>
Source record: 131257

A simple question--but I can't seem to find a definitive
answer anywhere . . . can anyone tell me the _minimum_ effective angle
between the two legs of an inverted "v" antenna?

My installation would require the two legs to anchor
approximately 12' apart (at 13' above ground) in order to fit my
location. Using, for example, a 30-40' pole at the peak of the "v",
would the antenna provide a satisfactory installation (the point of
the "v" would be due West with the legs due East)?

Responses by email or here would be greatly appreciated--as
would any feedback on the Yaesu YA-30 tuned dipole antenna, which I'm
hoping to use for the installation.

Thanks in advance,

73 de KE8HH, Rick

--

Rick Adams
ke8hh@qsl.net

"... and the only measure of your worth and your deeds
will be the love you leave behind when you're gone."

Fred Small, J.D., "Everything Possible"

2670. Re: Hustler 4BTV Help Needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-17 23:58:39 UTC
From: Neil M Barrowman <rn822706@ntlworld.com>
Message-ID: <S2WB9.51$Yd1.63645@newsfep2-gui>
Source record: 131258

Iam using hustler 5btv ant at ground level --NO RADIALS--with very good
results --great care taken to adjust lengths of vertical elements for each
band -- - (that is--for section of each band where operation
intended)---for lowest swr---starting at lowest band first and progressing
up the bands in sequence---IF---I HAD
the space-and energy--(im 75) Iprobably would have fitted radials -butIdont
have either-- so Itried it without radials and was very pleased soon after
to get my first qsl card from vk6(psk31) with 559 for 45 watts on 15
meters. I dont think I'll bother w with
> Is is not an issue of antenna efficiency? The use of radials will improve
> the over all efficiency is what I have always been lead to believe. 73
> Larry/W4LM
>
> "K9SQG" <k9sqg@aol.com> wrote in message
> news:20021105192107.06119.00000068@mb-bd.aol.com...
> > Dan,
> >
> > Sounds like the antenna needs to be adjusted to get the SWR down for the
> parts
> > of the band that you want to use.
> >
> > Unfortunately, some brands seem to want to defy the laws of physics and
> state
> > radials are not needed. This is NOT true. For those that believe, no
> proof is
> > necessary, for those that don't believe, no proof is possible. A ground
> > mounted vertical without radials will perform but not nearly as well as
> one
> > with radials.
> >
> > 73s,
> >
> > Evan
>
>

2671. Re: Separation between multiple 2M J-Poles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 00:01:31 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211171601.e5916f0@posting.google.com>
Source record: 131259

Charles Dee Rice <cdrice@pobox.com> wrote in message news:<3DD7D52C.242E686@pobox.com>...
> I've seen several discussions here and through what I've found via search
> engines concerning mounting multiple Yagi antennas, but I haven't had
> much luck concening information for mounting multiple J-Poles.
>
> I have moved to a new house and am "reconstrucing" my shack and of course
> the antenna farm; at this house I have a great place to rather
> inconspicously mount a couple of 2M J-Poles on my furnance chimney --
> but I've never had them in this proximity before and need to decide
> how far apart to space them.
>
> Would the minimum 1/2 wavelength vertical separation apply to these
> antennas as well? Would the horizontal distance between masts factor in?
> Depending upon which corners I mount each antenna, I'd have 23 1/4",
> 28 1/2" or 36 1/2" horizontal separation.

Depends if they are end fire or broadside arrays. Usually, about 1/8
wave spacing gives the most gain from an end fire array. For a
broadside array, anything from a 1/4 to a 5/8 wave will work with
different patterns for each spacing. Generally, 5/8 spacing gives the
most gain with a broadside array.
You can easily model this and see the patterns with each shift in
phase for any given spacing. When modeling, you change the phasing by
changing the source.
IE: say two 1/2 waves are both fed in phase. "0" degrees of phasing
for each element. If you want to shift 90 degrees with one element,
just change the source to "90" for one of the elements. You can see
that reversing the numbers shifts the pattern in the opposite
direction. Any of those spacings you state can work, but will differ
in the patterns available. I would model them to see exactly what you
will get. Saves a lot of time and testing on the air...You'll know
about what to expect before you even put it up.
>
> Has anyone made or seen a J-Pole with multiple radiators constructed from
> a single mast? Perhaps I could just modify my existing J-Poles and
> essentially stack them on top of each other, using a single mast?

Sure, you are describing a "collinear". You can stack 1/2 waves or 5/8
waves. An isopole or ringo ranger are stacked dual 5/8's antennas. The
method butternut uses for their "trombone" type dual 5/8's verticals
are the closest thing I can think of to a "collinear J-pole". Some
make dual 1/2's or 5/8's out of copper. You have to add a phasing stub
between the elements..
>
> Does the latest Antenna Book address things like this? My latest copy

> is several revisions old, and doesn't have anything specifically about
> multiple J-Poles.

Dunno...I don't have the latest issue. My newest one is like 94 or
something like that..
>
> One J-Pole is for use on my packet rig, which stays on all the time, but
> of course is only TXing for small bursts; the other J-Pole would be for
> my voice rig. Both rigs run 50W max, but normally around 5W.
>
> Thanks for any advice or online resources anyone can point my to!

Want real performance? Get a small 3 or 4 el yagi. It'll blow the
verticals out of the water usually, and needs only one support. It
does require a rotor though if you want to turn it or go out an
manually turn the mast. A vertical should be fine for the packet
though.. MK

2672. Re: TH-3 JNR?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 00:05:41 UTC
From: Bill M <exray@no>
Message-ID: <utgbg2jlmvf97@corp.supernews.com>
Source record: 131260

Richard wrote:
>
> Hello
>
> Can someone tell me the difference between the TH-3JNR and the
> TH-3JRS, if there is any. There is also the TH-3JR. Are all of these
> the same model but just with different names??
>
> I think they are the same but can't seem to find anything on the web.
>
> Thanks
>
> Richard

I recall the TH-3JRS was simply a TH-3JR with stainless steel hardware.
Don't know about the JNR unless that is somebody else's abbreviation for
Junior.
-Bill

2673. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 00:51:55 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ar9djaejv1@knossos.btinternet.com>
Source record: 131262

>> Whenever you are using your so-called SWR meters to adjust your
> antennas/tuners etc...
==========

Hi Peter, good to see someone is getting himself up to date!

In the current drive for 'political correctness' - re-title SWR meters as SCSWR meters.

Or even better: TLI's = Transmitter Loading Indicators.

- a fully apt and far less confusing and disrupting description of the mis-named instrument for Guru's, Hams and CB-ers alike.

Comrades, let's all to the barricades - Vive La Revolution et L'Amateur Radio !

Hurry the Old Wives in the tumbrills, by the shortest route, to Madame Guillotine. She awaits, in anticipation, suspended !

Incidentally, what is the optimum height, weight and cutting angle? Didn't the Scots take out the first patent before the Bastille was stormed in 1792? But it was the brilliant French aristocratic mathematicians of the time, of course, who perfected the machine and indeed a few were amongst those who perished under her blade, spilling their blood along parisien gutters to the sewers and then to the Seine.

But during the same period of time, in the crowded English slum towns, far, far more people died of the cholera, typhoid, the plague, starvation, men, boys and mothers down the coal pits, and amidst the furnaces, engines in the primitive iron works and cotton mills. They were the innocent victims of another sort of revolution - the Industrial Age had already begun with even greater vengeance!

In these days of enlightenent we have now advanced to 24-hour porn on the telly to entertain our overweight, ill-educated, ignorant, gun-toting grand children. Where are the Weapons Inspectors?

Oh yes, I almost forgot - when is the asteroid due?

Have a good day and good DX folks. Hic!

Reg.

2674. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 01:04:48 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD83CB0.8151126A@ieee.org>
Source record: 131263

"Peter O. Brackett" wrote:
> If, as ya'll assert that the steady state is not a valid method of
> evaluating reflection mechanics.

It's not a valid method because the reflection mechanics are hidden
in the steady-state smoke and mirrors that you guys use with your
magic wave disappearing act. :-)

With a DDS source, you can program a different phase per cycle, i.e.
if you are careful, you can identify each individual cycle by its phase
modulation. Track the phase interference to see what happens to the
reflections.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2675. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 01:07:23 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD83D4B.74B8B649@ieee.org>
Source record: 131264

Reg Edwards wrote:
> Oh yes, I almost forgot - when is the asteroid due?

Tiny ones are due here in Texas at 4:30am tomorrow
(Monday) morning.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2676. Re: Which is good quiet amp: FL-7000, 2kl, 4kl, quadra, PW1 or other?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 01:15:27 UTC
From: Murray Neece <radioranch@qth.com>
Message-ID: <3DD83F2F.8FD9C285@qth.com>
Source record: 131265
Body handling: Binary attachment payload not displayed: radioranch.vcf

#1..The attempt at eliminating spam, does nothing the xxx thing...
#2..All of the solid state amps you mention are very quiet and
good...nearly all get a second speed of the fan that is a bit noisy when
things get hot.!!! 73 Murray PS I have had them all...I keep the IC
2kl cause Im and Icom man....and use an AL 1200 when I need the big
stuff!! M

nospam wrote:

> h

[One or more binary attachments are retained only in the source text.]

2677. Re: Inverted "V" Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 01:28:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utggicon8rrf2@corp.supernews.com>
Source record: 131120

The reason you can't find an answer is that there isn't one.

As you decrease the angle, the radiation resistance decreases and the bandwidth narrows. It's up to you to decide when the resistance or bandwidth is too low for you. People who don't want to bother with making these decisions often limit the angle to no less than 90 degrees, since this yields a radiation resistance and bandwidth most find acceptable.

You can easily find the resistance and bandwidth for any angle with the free EZNEC demo program from http://eznec.com.

Roy Lewallen, W7EL

Rick Adams wrote:
> A simple question--but I can't seem to find a definitive
> answer anywhere . . . can anyone tell me the _minimum_ effective angle
> between the two legs of an inverted "v" antenna?
>
> My installation would require the two legs to anchor
> approximately 12' apart (at 13' above ground) in order to fit my
> location. Using, for example, a 30-40' pole at the peak of the "v",
> would the antenna provide a satisfactory installation (the point of
> the "v" would be due West with the legs due East)?
>
> Responses by email or here would be greatly appreciated--as
> would any feedback on the Yaesu YA-30 tuned dipole antenna, which I'm
> hoping to use for the installation.
>
> Thanks in advance,
>
> 73 de KE8HH, Rick

2678. Tri-band beam assembly

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 01:30:17 UTC
From: castles <castles@yestertronics.com>
Message-ID: <3DD841B4.B1CAEF4E@yestertronics.com>
Source record: 131266

I will shortly be assembling my Cushcraft tri-bander. Should I coat the inside aluminum sections that will be clamped, with a conductive paint before assemply. I remember putting together a beam many years a go and I think we used carbon suspended in something but I cannot remember the name of the product.

Thanks, Don W6QEY

2679. Re: converting uV/m values to mW values

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 01:34:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utggt03s20mv8f@corp.supernews.com>
Source record: 131267

Richard Harrison wrote:
> Danny wrote:
> "---microvolts per meter values to the European mW."
>
> Convert volts per meter into watts per square meter by squaring the
> volts and dividing by 377 ohms (resistance of space).
>
> Best regards, Richard Harriaon, KB5WZI

This is valid only in the far field, where the E and H fields are in time phase and have the ratio of 377 ohms. In the near field, you have to know both the E and H fields, magnitude and phase, in order to calculate the power density, since the ratio of E to H isn't 377 ohms, and can be complex. But I believe that most authorities imposing radiation requirements (such as the FCC) accept the conversion Richard gives for compliance purposes, even if it isn't particularly accurate.

Roy Lewallen, W7EL

2680. Tramflex coax

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 02:25:33 UTC
From: rckchp@comcast.net
Message-ID: <6dc33f40.0211171825.175ab8f0@posting.google.com>
Source record: 131268

Anyone have any knowledge or opinions about coaxial cable with the brand name Tramflex? Is it good, just OK, or lousy stuff?

2681. Re: Separation between multiple 2M J-Poles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 02:45:45 UTC
From: richardharrison@webtv.net
Message-ID: <21708-3DD85459-2@storefull-2314.public.lawson.webtv.net>
Source record: 131121

Charles Dee Rice wrote:
"Does the latest Antenna Book address things like this?"

Maybe not exactly what Charles wants, but edition 19 of the ARRL Antenna Book has a collinear J-pole called a "Super-J antenna" on page 16-25. The two half-wave radiators are separated by a perpendicular short-circuit 1/4-wave stub to perform the necessary phase inversion. The usual base stub is used to match the feedline.

If vertical antennas are to be decoupled and mounted on the same axis, two wavelengths at the lowest frequency is a reasonable minimum, but less separation also works.

Best regards, Richard Harrison, KB5WZI

2682. Re: Tramflex coax

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 02:46:12 UTC
From: Bill M <exray@no>
Message-ID: <utgkt0mkcmo400@corp.supernews.com>
Source record: 131119

"rich a." wrote:
>
> Anyone have any knowledge or opinions about coaxial cable with the
> brand name Tramflex? Is it good, just OK, or lousy stuff?

>http://216.239.33.100/search?q=cache:9_lz9-j3Y1wC:www.vidiot.org/02-01QSX.pdf+tramflex+cable&hl=en&ie=UTF-8<

About 60% down the page on the right.

-BM

2683. Re: Which is good quiet amp: FL-7000, 2kl, 4kl, quadra, PW1 or other?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 03:30:06 UTC
From: k9sqg@aol.com
Message-ID: <20021117223006.28710.00000010@mb-fa.aol.com>
Source record: 131122

The sound is equally loud, from the user, when one of the transistors goes out, the SWR protection circuit goes, etc., hi. Guess I just like the glow and reliability of the tube amps...

2684. Re: Tri-band beam assembly

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 03:37:46 UTC
From: Bob Nielsen <nielsen@remove_this.oz.net>
Message-ID: <ar9naa$kc9$0@216.39.144.81>
Source record: 131123

On Mon, 18 Nov 2002 01:30:17 GMT, castles wrote:
> I will shortly be assembling my Cushcraft tri-bander. Should I coat the
> inside aluminum sections that will be clamped, with a conductive paint
> before assemply. I remember putting together a beam many years a go and
> I think we used carbon suspended in something but I cannot remember the
> name of the product.

Use No-Alox, Oxgard or similar (check the electrical department of your
local hardware store or an electrical supply house). These are a
grease with suspended conductive particles (not paint).

Bob, N7XY

2685. COMSCOPE 75 Ohm 5/8" HARDLINE CONNECTORS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 04:06:12 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3DD86470.606DC536@verizon.net>
Source record: 131124

I seem to recall an article on adapting connectors for this cable. I
have 300' new and this would make a nice run to the new tower.
Have a mill and a lathe- awaiting ideas.

Dale W4OP

2686. Re: counterpoise wires

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 05:53:50 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ar9v9e$4vv$4@208.206.142.81>
Source record: 131125

OC_CAM's_Razor wrote:
>
> 'Doc wrote:
> > Counterpoise length isn't critical, but you should
> > at least be in the 'ball park' with it. I wouldn't
> > bother about the velocity factor. A few inches either
> > way won't make a lot of difference.
>
> Counterpoise length is somewhat akin to off-center feeding
> a dipole. Being off-center by a relatively small amount
> doesn't much matter.

Not only that, proximity to ground will sure change the resonant length
of that element.

Dick

2687. Re: COMSCOPE 75 Ohm 5/8" HARDLINE CONNECTORS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 06:15:47 UTC
From: Eric Schumacher <WB6KCN@pacbell.net>
Message-ID: <nA%B9.808$4b2.27034044@newssvr21.news.prodigy.com>
Source record: 131126

Hi Dale
The eaisiest way to do it is to get your hands on some "entrance fittings" for your size cable. Often called stingers by CATV people. These are the fittings that go into the amplifiers and splitters. Common items at swapmeets and CATV trucks $7.00 brand new.

They have a 3/4 24 thread on the end that goes into the housing. Just solder a center pin on it and screw it into the back end of an N connector. Very trick & weather tight. Trim cable length to give 1:1 VSWR with 50 ohm on far end.

73 Eric WB6KCN
"Dale Parfitt" <parinc@verizon.net> wrote in message
news:3DD86470.606DC536@verizon.net...
> I seem to recall an article on adapting connectors for this cable. I
> have 300' new and this would make a nice run to the new tower.
> Have a mill and a lathe- awaiting ideas.
>
> Dale W4OP
>

2688. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 06:19:59 UTC
From: Lynn Jefferson <ri@xu.orgnospam>
Message-ID: <181120020219598222%ri@xu.orgnospam>
Source record: 131127

> Had you used a valid email address my response would have reached you, hi.

Along with a ton of spam every day for the next 3 years.

I do plan to order a copy of the ARRL antenna book.

2689. Re: counterpoise wires

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 07:56:59 UTC
From: Simon <simon@nothing.net>
Message-ID: <i41C9.77$p_2.25418@newsfep1-win.server.ntli.net>
Source record: 131128

Thank you all, excellent advice.

Simon

2690. Re: Undecided.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 08:26:08 UTC
From: Ronald J Bilodeau <va3sgr@vianet.ca>
Message-ID: <3DD8A420.C1935F0E@vianet.ca>
Source record: 131133

Thank You All Very Mutch All for your replies.
Ron...VA3#*SGR

Dennis Kaylor wrote:
>
> sure beats paying $100 more just for the name diamond attached to it
>
> CW wrote:
> > That's correct, buy the one with the most ambitious advertising hype.
> > "Dennis Kaylor" <k4oxg@tampabay.rr.com> wrote in message
> > news:3DD7BFEC.7000806@tampabay.rr.com...
> >
> >>hey ron
> >>what you need to look at is the DB rating make sure they both compare to
> >>either DBD or DBI dont try to compare a DBD to a DBI it will give you a
> >>headache
> >>when i was looking into getting a dualband base antenna i looked at
> >>comet and diamond and a few others and i found comet was better had
> >>higher gain for nearly $100 less than the diamond
> >>good luck
> >>
> >>Ronald J Bilodeau wrote:
> >>
> >>>Hi, I would like to know which is the best antenna between th Comet GP-6
> >>>and the Diamond X-200A.
> >>>Also Is the Anli A100B as good as the Diamond X50A because it is only 3
> >>>feet tall?
> >>>Thank you very mutch.
> >>>RON VA3*SGR
> >>
> >
> >

2691. Re: Separation between multiple 2M J-Poles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 12:25:25 UTC
From: richardharrison@webtv.net
Message-ID: <27664-3DD8DC35-264@storefull-2318.public.lawson.webtv.net>
Source record: 131129

Charles Dee Rice wrote:
"---I haven`t had much luck concerning information for mounting multiple J-poles."

For isolation, about 10x the separation distance is needed between side-by-side mounting as compared with end-to-end mounting. End-to-end, the antennas are in each other`s nulls.

Best regards, Richard Harrison, KB5WZI

2692. Re: Undecided.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 13:22:57 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DD8E9AA.5000508@tampabay.rr.com>
Source record: 131130

sure beats paying $100 more just for the name diamond attached to it

CW wrote:
> That's correct, buy the one with the most ambitious advertising hype.
> "Dennis Kaylor" <k4oxg@tampabay.rr.com> wrote in message
> news:3DD7BFEC.7000806@tampabay.rr.com...
>
>>hey ron
>>what you need to look at is the DB rating make sure they both compare to
>>either DBD or DBI dont try to compare a DBD to a DBI it will give you a
>>headache
>>when i was looking into getting a dualband base antenna i looked at
>>comet and diamond and a few others and i found comet was better had
>>higher gain for nearly $100 less than the diamond
>>good luck
>>
>>Ronald J Bilodeau wrote:
>>
>>>Hi, I would like to know which is the best antenna between th Comet GP-6
>>>and the Diamond X-200A.
>>>Also Is the Anli A100B as good as the Diamond X50A because it is only 3
>>>feet tall?
>>>Thank you very mutch.
>>>RON VA3*SGR
>>
>
>

2693. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 14:45:47 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Ra2cnWpoQL0IYUWgXTWcpg@comcast.com>
Source record: 131131

Lynn,

I don't see this as even a semi viable solution. If you can't get a wire at least 30' in the air, consider a verical. Not ground mounted.

Tam/WB2TT

"Lynn Jefferson" <ri@xu.orgnospam> wrote in message news:171120021605443205%ri@xu.orgnospam...

> Lots of flat land. Not inclined to build a tower. Considering a
> horizontal wire along top of fenceposts, held apart from wood by
> electric fence type insulators. Would this type of antenna (end-fed or
> dipole) be at all useful? I realize the height is less than optimal but
> I am not willing to add any man-made structures to the beautiful
> landscape apart from what is already here.

2694. Re: Best Indoor FM Antenna ???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 14:51:21 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <VpycnYC3d9maY0WgXTWcqg@comcast.com>
Source record: 131132

Try TV rabbit ears. Pull each side out about 30 inches. Or, tape a dipole to the wall behind the stereo, but that won't let you change the directivity.

Tam

"Selcuk FIRINCIOGLU" <selcuk7@yahoo.com> wrote in message news:76a0e90b.0211160247.1301f778@posting.google.com...
> Hi all,
>
> I am a newbie and would like to know which homebrew indoor FM antenna
> would perform best for my hi-fi system with 75 ohm outlets. I live in
> an apartment covered with high buildings.
>
> Thanks for any information

2695. FA: Mini UHF connectors for Proflex, NEW!!! $8.00

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 15:21:04 UTC
From: US Patriot <nospam@tome.com>
Message-ID: <Az7C9.12946$vM1.946611@bgtnsc04-news.ops.worldnet.att.net>
Source record: 131134
Cross-posted to: alt.ham-radio.vhf-uhf,rec.ham-radio.swap,rec.radio.amateur.antenna,rec.radio.swap

Great Deal!!!!!!!
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=801841232&rd=1

2696. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 16:23:55 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211180823.69b48ff@posting.google.com>
Source record: 131135

"Gordon Couger" <gcouger@NOSPAMprovalue.net> wrote in message
news:<OPhA9.8230$P71.2237960@newsfeed.slurp.net>...
> "Bob Cameron" <bob.cameron.remove@optusnet.com.au> wrote in message
> news:l2mjqa.cv7.ln@p400bob.lse.com.au...
> > Gordon Couger wrote:
> >
> > > I have 3 antenna designs that work and have been range tested side by
> side
> > > with commercial products using corn field ranges and they pass a reality

Gordon, exactly what are you making so that the parameters of use can
be gauged?
Ive seen mention of both plate and rod and now you mentioned
machining.
As an engineer many facts would have to be known before a reasonable
material can be suggested. For instance I once needed a specialty part
and eventually finished up creating a mix of epoxy and brass filings
to mold a specific part which is still in use today. Yes it proved to
be a good material but for you I have no idea.Same with epoxy glass
boards which when painted work just great
but for your use again I have no idea.
Art

2697. Re: Hamstick ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 16:31:51 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <arb4l9$11fq@r02n01.cac.psu.edu>
Source record: 131136

I was licensed in 1970, as WN8EIY, later WB8EIY and W3JXP is a vanity call. I became tired of people turning their antenna the wrong way when they heard the 8 land call after I moved to Pennsylvania. Also many of the southern boys had a real problem with the "I" in the call. As much as I hated to give up a call I've had for so long, it was time. Its my email prefix here at Penn State. I am a seasoned ham as I've now been licensed for more than 30 years. I was thinking it about a bit ago, and by my recollection, the longest length of time I've gone with out transmitting on a ham band is 30 days, when I was working in Europe and couldn't get a license in time to take it with me. I started work as an electronics engineer in the Physics dept. at Michigan State University in 1970. I then moved to Penn State University as part of a High Energy Physics research group in about 1982. Here I run the electronics shop and design and build research and teaching equipment. You are some what correct about how grad students are used. But the idea is that when they get their PHD they can then pass it on, the dirt jobs that is, to others. That is the time honored system that has been used in colleges from the day colleges started.

--
John Passaneau, W3JXP
Physics Dept. Electronics Shop
Penn State University
104 Davey Lab, University Park , Pa. 16802
814.863.4297, jxp16@psu.edu

"ohhhnooomr.bill" <ur@on.the.air.con> wrote in message
news:ar4ahb$g7e$1@news.chatlink.com...
> After spending a great deal of time working on my BSEE and my MSEE, what I
> have learned about higher education is this, students are for proof
reading
> manuscripts and working like dogs so the enlighten ones can get
"Published".
> At the very least, they are around so the enlighten ones can look down
upon
> their miserable stupid students and gloat about how they "helped invent"
> some piece of techology at Bell Labs or something important place during
> their glory days.
>
> I have also learned from many hours of research that most "Published"
works
> is just a rewording of the same old topics to appear to be original.
>
> By the way great move to add some extra credibility by looking like an
> "seasoned" ham with the 1x3 call sign......when you were actually first
> licensed sometime in the after 1969 as WB8EIY. I ought to know as my WB8

> call was issued in 1969 and it is older than yours. I would bet you used
to
> work at OSU's Electrosceince Lab.
>
> 3's to ya'll
>
> The Wandering Weasal,
>
> Well back to splitting atoms in my basement.
>

2698. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 18:07:17 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD92C55.DDF34F5E@cwis.net>
Source record: 131137

Lynn,
It cn be a great listening antenna, but not much
for transmitting. Extending a few posts 15-20 feet
would certainly improve it, and not make much of a
change in the 'landscape'.
'Doc

2699. "Even Saddam Hussein gets Spam..."

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 18:11:18 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <kh7itucukfvj5i9365ipqukgr32al6kmke@4ax.com>
Source record: 131138

All Hail Bush!

Or so starts the report from Durham, N.H. where Holly Ramer of the Associated Press reports of the efforts of one Brian McWilliams to snoop on email sent TO Saddam.

Seems he stumbled across an iraqi site that offered a means to submit and read email. He simply entered press@uruklink.net (Saddam's account) and used "press" (for president) as the password - BINGO! He then had access to a treasure trove of mail from folks all over the world. McWilliams wrote about this in several publications since last summer, and notified the government. The government (our tax dollars at work) has yet to respond. To quote our great leader, this is going to take time - if we leave it to the politicians that is.

Apart from the obvious lack of interest from those whose job is presumably security (seems to infect both sides); McWilliams also revealed how some American firms were clamoring to do business with the great Satan. And here we get to something that borders on interest to this group.

"... despite U.S. prohibitions against such transactions,
McWilliams said ... company e-mailed Saddam to request a meeting,
suggesting they could discuss 'technology improvements and
exporting of rich technology abroad.'
He said the company ... claimed to have developed wireless
technology capable of 'igniting large sections of the
atmosphere.'"

McWilliams added it all revolved around communications antennas. That company, of course, has not been approached by the FBI in this era's new concern for security (it will take time). And perhaps for good reason considering the claim. Perhaps those agencies follow the debates here and take stock in our efforts to debunk nut-fringe activity. However, it would seem prudent if the SEC looked into this bunko operation - but then the administration's track record of ferreting out the business bozos and their shills is no better than finding Osama Waldo (I'm beginning to wonder if he dresses in a striped shirt and wears glasses and a stocking cap).

The bottom line appears to be that those of the intellectual calibre and emotional fitness of catering to Saddam/Enron/Anderson seem prone to propagating get-rich-quick schemes that unfold around fantasies draped in the psuedo-science of eh/cfa/fractals. Now doubt the coming term will open up the floodgates of the tax coffers to dole out juicy contracts to develop antennas capable of "igniting large sections of

the atmosphere" as a means to cut the antenna-gap. Yes, this could take a very long time (that hand riffling through your wallet is the fist of security).

death to the terrorists,
Richard Clark, KB7QHC

2700. radials question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 18:53:48 UTC
From: David <Dave@lawlink.com>
Message-ID: <0HaC9.77481$QZ.11802@sccrnsc02>
Source record: 131139

What is the difference between putting down or burying radials, and burying counterpoise wires, aren't they one of the same? I hope this isn't a dumb question.
Thanks

2701. Re: Tri-band beam assembly

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 19:17:51 UTC
From: Pappy@USA.net
Message-ID: <3DD93CDE.F57D5373@USA.net>
Source record: 131141

castles wrote:

> I will shortly be assembling my Cushcraft tri-bander. Should I coat the
> inside aluminum sections that will be clamped, with a conductive paint
> before assemply. I remember putting together a beam many years a go and
> I think we used carbon suspended in something but I cannot remember the
> name of the product.
>
> Thanks, Don W6QEY

When I put up my A3S I didn't do anything except assembly and mine is in very good condition after 2 years at 50 feet.

2702. Re: Separation between multiple 2M J-Poles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 19:22:25 UTC
From: Mark Keith <nm5k@wt.net>
Message-ID: <3DD93DF1.1616@wt.net>
Source record: 131140

> Charles Dee Rice wrote:
> Depends if they are end fire or broadside arrays. Usually, about 1/8
> wave spacing gives the most gain from an end fire array. For a

Thanks for the advice; maybe I'm misunderstanding, but I'm not sure
we're
on the same page here. :)

We are not. My mistake..I thought you were trying to phase the antennas.

I want the antennas to act completely
independant of each other (minimal interaction) -- since one is for a
packet rig and the other general-whenever-I-feel-like-it voice
operation.
I don't want one rig desensing the other every time it transmits, and I
don't really want to impact the radiation pattern of either antenna.

Got you. I'm not sure what would be required with that. I've never had
to try it, and never have done any work with repeaters, etc in order to
know the best methods of seperating. Desensing probably would be a
problem.

> Sure, you are describing a "collinear". You can stack 1/2 waves or 5/8

Read a little about those, too -- but couldn't find any information on
simultaneously transmitting on both elements, or what effect
transmitting
on one has on the other. Maybe I just didn't read enough about them
yet.

Those won't work for what you want to do. They are single antennas.
Maybe some others will have better ideas for you. I think Richard stated
two waves apart are ok, but I'm not sure if that would be enough to
avoid desensing problems or not. Thats pretty close together. MK

--
http://web.wt.net/~nm5k

2703. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 19:26:02 UTC
From: Pappy@USA.net
Message-ID: <3DD93ECA.9EA2AEE1@USA.net>
Source record: 131142

Tarmo I have a 100' long wire about 10 feet off the ground connected to tuner and it works well. My long wire is just a piece of 14 gage wire looped through the limbs of the trees at various angles and connected to the MFJ Tuner. It's great for monitoring everything from the AM broadcast band to 30 MHz. I have used it on transmit through the tuner on 40, 20, 15 and 10 meters. It's nothing fancy but it works and it's not expensive by any means.

73's

Tarmo Tammaru wrote:

> Lynn,
>
> I don't see this as even a semi viable solution. If you can't get a wire at
> least 30' in the air, consider a verical. Not ground mounted.
>
> Tam/WB2TT
> _____
> "Lynn Jefferson" <ri@xu.orgnospam> wrote in message
> news:171120021605443205%ri@xu.orgnospam...
> >
> > Lots of flat land. Not inclined to build a tower. Considering a
> > horizontal wire along top of fenceposts, held apart from wood by
> > electric fence type insulators. Would this type of antenna (end-fed or
> > dipole) be at all useful? I realize the height is less than optimal but
> > I am not willing to add any man-made structures to the beautiful
> > landscape apart from what is already here.

2704. Re: radials question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 19:33:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utig527enjkff7@corp.supernews.com>
Source record: 131144

Yes, they're the same. The term "counterpoise" is used by amateurs to mean a part of the antenna that doesn't radiate significantly. Although buried radial wires fit this description, the term "counterpoise" is usually applied to an elevated, rather than buried, system of wires. So most amateurs wouldn't describe a system of buried radials as a "counterpoise" even though that's what it amounts to.

Roy Lewallen

David wrote:
> What is the difference between putting down or burying radials, and burying
> counterpoise wires, aren't they one of the same? I hope this isn't a dumb
> question.
> Thanks
>
>

2705. Re: Ham 4 Motor?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 19:39:20 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <utigfcr8h1dr75@corp.supernews.com>
Source record: 131147

Hi,

NORM does. :-)
http://users.erols.com/shiacawn/rotors/n_sales.htm

Regards,
Jim
--
email sent to: denews@taborsoft.com
is discarded without being seen.
Sorry for any inconvenience.
"Richard" <richard.uk@talk21.com> wrote in message
news:4d609731.0211171546.291bb3c3@posting.google.com...
> Hello
>
> Has anyone got a Ham 4 rotator motor or the whole thing that they
> don't want or will sell cheaply?
>
> Richard

2706. Re: "Even Saddam Hussein gets Spam..."

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 19:39:22 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <utigfbkakhpm73@corp.supernews.com>
Source record: 131146

Do you really believe that the government was too stupid to figure this out by themselves? As to your second remark, the Enron scandals and those of that ilk, such as dealing with Sadam are a result of moral relativism that makes everything ok - if you think it is ok.

"Death before dishonor" has become " money before honor", why are you surprised?

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:kh7itucukfvj5i9365ipqukgr32al6kmke@4ax.com...
> All Hail Bush!
>
> Or so starts the report from Durham, N.H. where Holly Ramer of the
> Associated Press reports of the efforts of one Brian McWilliams to
> snoop on email sent TO Saddam.
>
> Seems he stumbled across an iraqi site that offered a means to submit
> and read email. He simply entered press@uruklink.net (Saddam's
> account) and used "press" (for president) as the password - BINGO! He
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> presumably security (seems to infect both sides); McWilliams also
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> interest to this group.
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> "... despite U.S. prohibitions against such transactions,
> McWilliams said ... company e-mailed Saddam to request a meeting,
> suggesting they could discuss 'technology improvements and
> exporting of rich technology abroad.'
> He said the company ... claimed to have developed wireless
> technology capable of 'igniting large sections of the

> atmosphere.'"
>
> McWilliams added it all revolved around communications antennas. That
> company, of course, has not been approached by the FBI in this era's
> new concern for security (it will take time). And perhaps for good
> reason considering the claim. Perhaps those agencies follow the
> debates here and take stock in our efforts to debunk nut-fringe
> activity. However, it would seem prudent if the SEC looked into this
> bunko operation - but then the administration's track record of
> ferreting out the business bozos and their shills is no better than
> finding Osama Waldo (I'm beginning to wonder if he dresses in a
> striped shirt and wears glasses and a stocking cap).
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> and emotional fitness of catering to Saddam/Enron/Anderson seem prone
> to propagating get-rich-quick schemes that unfold around fantasies
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> contracts to develop antennas capable of "igniting large sections of
> the atmosphere" as a means to cut the antenna-gap. Yes, this could
> take a very long time (that hand riffling through your wallet is the
> fist of security).
>
> death to the terrorists,
> Richard Clark, KB7QHC

2707. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 19:42:41 UTC
From: Larry Higgins <n9dx@attbi.com>
Message-ID: <RobC9.43649$%m4.19523@rwcrnsc52.ops.asp.att.net>
Source record: 131143

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:Ra2cnWpoQL0lYUWgXTWcpg@comcast.com...
> Lynn,
>
> I don't see this as even a semi viable solution. If you can't get a wire
at
> least 30' in the air, consider a verical. Not ground mounted.

If not ground mounted, a taller structure is required and the counterpoise is up in the air. If it's operated without a counterpoise, efficiency suffers. Don't believe any manufacturer who claims otherwise, unless the whole system is at least a half wave above ground. Even then, there will be plenty of rf current flowing on the outer surface of the feedline, and that current changes the pattern and heats the worms.

Why not ground mounted? Ground mounted verticals are structurally simpler, and with even a modest set of radials they are fairly efficient. For example, as few as 16 radials, each 0.1 wavelengths long, is down only 3 db from perfectly conducting ground. That's many many db above the wire above the fence. On 20 meters, 0.1 wavelengths is 6.5 feet. So the whole radial system requires only 100 feet of wire, which can be installed in less than an hour. Going to 24 radials 0.125 wl picks up another db, and is still only 200 feet of wire.

A 20m 1/4-wave vertical is only 16 feet tall and can be easily fabricated. A triband vertical is about the same height. Since aesthetics are important, such an antenna could be rigged with an extended base and plugged into a hole in the ground when in use, and unplugged for storage when not in use.

73

Larry, N9DX

2708. 26' Glen Martin Roof Tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 19:47:48 UTC
From: jhisson1@columbus.rr.com
Message-ID: <4c442fa0.0211181147.57b89710@posting.google.com>
Source record: 131145

Hello,

I am in the home stretch of putting the tower up. The appropriate paperwork has been filed and the hearing is this Thursday for my permit. The plan is to put up a 17.5' Glen Martin roof tower on my garage. The garage is about 14.9'. I will be putting more supports in the rafters than the instructions say. I am thinking of getting the next higher tower, the 26' one. That would put the antenna up at 40.9' instead of the 32.4'. I am more concerned about the safety of the higher tower than the cost. (I have the money for either). Also, how much mast can I put out the top of the tower? There will be about 2' in the tower. I will have a 5 band Hexbeam up which is 5sq ft of wind load.

Thanks!

Jason Hissong
N8XE

2709. Re: Hustler 4BTV Help Needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 19:58:00 UTC
From: Larry Higgins <n9dx@attbi.com>
Message-ID: <cDbC9.44520$WL3.16696@rwcrnsc54>
Source record: 131148

"Neil M Barrowman" <rn822706@ntlworld.com> wrote in message
news:S2WB9.51$Yd1.63645@newsfep2-gui...
> Iam using hustler 5btv ant at ground level --NO RADIALS--with very good
> results

My own experience with 5-band verticals without radials is that they are excellent on 10, very good on 15, pretty good on 20, fair on 40, and very poor on 80. Add radials and performance improves on all bands, with the most improvement on the low bands.

Since you are 75, I can see why you don't want to dig up your yard for radials. That's not necessary anyway. What I did for mine (and what many others have done) is just lay the wires on the grass and pin them down with six inch pieces of #12 or bigger, bent in half to look like large bobby pins. The grass will soon overgrow them and your lawnmower won't grab them. Or, if you live where you don't have to mow the grass year-round, just lay them on the ground in the fall and roll them up in the spring.

73

Larry, N9DX

2710. Re: radials question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 20:09:52 UTC
From: Larry Higgins <n9dx@attbi.com>
Message-ID: <kObC9.44561$WL3.17465@rwcrnsc54>
Source record: 131149

"David" <Dave@lawlink.com> wrote in message
news:0HaC9.77481$QZ.11802@sccrnsc02...
> What is the difference between putting down or burying radials, and
burying
> counterpoise wires, aren't they one of the same? I hope this isn't a dumb
> question.
> Thanks

"Putting down radials" usually means putting them on top of the ground, either permanently or temporarily. If permanent, they are held down with pieces of bent wire to hold them down until the grass grows over them. That's what was done here at N9DX and by many, many others. If temporary, just lay them on the ground and when you're finished with them, roll them back up. That's what we do for field day.

"Burying radials" means just that. You can use a shovel, or a shallow plow, or special equipment made for the purpose. Go just deep enough to protect them. Broadcast stations bury theirs. So do people with a lot of energy and time.

Electrically, there's little difference. Burying them just protects the wire better.

BTW, make them from almost any copper wire. Don't use aluminum; the acid in the soil will quickly destroy them.

73

Larry, N9DX

2711. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 21:18:29 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <G-KcnQJ6AclcxUSgXTWc3Q@comcast.com>
Source record: 131150

I went through a lot of frustration when I first got licensed for HF, trying
to get dipoles at 15 -20 feet to work for transmitting. Finally, in
desperation, I gave a guy in NM a call on 15 meter SSB, using a 6 meter beam
in the attic, about 10 feet off the ground. SWR was 8:1. He came back to me!
But that was during a contest. First antenna I had that I could work DX with
was a JR tribander at 30 feet. I don't think he is going to be happy with
the antenna at 6 feet, but it all depends on what his expectations are.
Tam/WB2TT
<Pappy@USA.net> wrote in message news:3DD93ECA.9EA2AEE1@USA.net...
> Tarmo I have a 100' long wire about 10 feet off the ground connected to
tuner
> and it works well. My long wire is just a piece of 14 gage wire looped
through
> the limbs of the trees at various angles and connected to the MFJ Tuner.
It's
> great for monitoring everything from the AM broadcast band to 30 MHz. I
have
> used it on transmit through the tuner on 40, 20, 15 and 10 meters. It's
> nothing fancy but it works and it's not expensive by any means.
>
> 73's
>
> Tarmo Tammaru wrote:
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> > Lynn,
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> > I don't see this as even a semi viable solution. If you can't get a wire
at
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> > _____________________________________
> > "Lynn Jefferson" <ri@xu.orgnospam> wrote in message
> > news:171120021605443205%ri@xu.orgnospam...
> > >
> > > Lots of flat land. Not inclined to build a tower. Considering a
> > > horizontal wire along top of fenceposts, held apart from wood by
> > > electric fence type insulators. Would this type of antenna (end-fed or
> > > dipole) be at all useful? I realize the height is less than optimal
but
> > > I am not willing to add any man-made structures to the beautiful
> > > landscape apart from what is already here.
>

2712. Re: radials question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 21:41:58 UTC
From: richardharrison@webtv.net
Message-ID: <28293-3DD95EA6-401@storefull-2312.public.lawson.webtv.net>
Source record: 131153

Larry, N9DX wrote:
"BTW, make them from almost any copper wire. Don`t use aluminum; the acid in the soil will quickly destroy them."

That`s correct. An acid, base or salt in the soil forms a battery electrolyte when damp. Dis-similar metals become electrodes. The less noble metal is disolved in the solution to migrate in the current flow toward the more noble metal, as the zinc can disolves in a flashlight cell as its current flows toward the carbon electrode in the center of the cell. Zinc sacrificial anodes are often attached to iron and steel to protect the iron and steel from rusting away.

Here is about half the list of metals starting with the most anodic, or most likely to be sacrificed. The farther apart on the list, the higher the voltage of the electrolytic cell (battery) the two metals will make when immersed in an electrolytic solution, and the faster the anodic material is likely to be consumed.

1. Magnesium
2. Zinc
3. Aluminum
4. Cadmium
5. Steel
6. Casrt Iron 7.
Stainless Steel
8. Lead-Tin Solder
9. Lead
10. Tin
11. Nickel
12. Iconel
13. Brass
14. Copper

The list goes on, graphite, a form of carbon is no. 25. It is follower by gold and platinum which are not often found in batteries due to their cost no doubt.

Electrolytic protection whether by impressed current from a rectifier or from a zinc anode bolted to a piece of steel is called "cathodic protection". The steel is the cathode.

A battery of zinc and copper in a solution has a negative polarity zinc anode and a positive polarity copper cathode. This is opposite from a vacuum tube`s positive anode and negative cathode. But, such batteries were in use long before the vacuum tube was invented.

Best regards, Richard Harrison, KB5WZI

2713. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 21:59:51 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <-JCdneTnMYrv_0SgXTWc3w@comcast.com>
Source record: 131151

Larry,
&#65533; hear you, but ground mounted vertical. or the horizontal at 6 feet for that matter, scare the daylights out of me when close to people. I would prefer to keep most of the RF out of the house. Also, he may not want the vertical with the radials, because he would have to put it where he has to look at it. If I did not have any trees, and did not want to put up a tower (I have a Wilson 45' tubular), I would stick a 12-15 foot piece of pipe in the ground (and ground rod), and support it to the back of the garage with TV hardware. Now mount a no-radial vertical on the end of the pipe. As for asthetics, I think some of them look almost pretty (?!). Not optimum, but people get out with mobile antennas.

Tam/WB2TT
"Larry Higgins" <n9dx@attbi.com> wrote in message
news:RobC9.43649$%m4.19523@rwcrnsc52.ops.asp.att.net...
>
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> > least 30' in the air, consider a verical. Not ground mounted.
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> If not ground mounted, a taller structure is required and the counterpoise
> is up in the air. If it's operated without a counterpoise, efficiency
> suffers. Don't believe any manufacturer who claims otherwise, unless the
> whole system is at least a half wave above ground. Even then, there will
be
> plenty of rf current flowing on the outer surface of the feedline, and
that
> current changes the pattern and heats the worms.
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> Why not ground mounted? Ground mounted verticals are structurally
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> and with even a modest set of radials they are fairly efficient. For
> example, as few as 16 radials, each 0.1 wavelengths long, is down only 3
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> from perfectly conducting ground. That's many many db above the wire
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> the fence. On 20 meters, 0.1 wavelengths is 6.5 feet. So the whole
radial
> system requires only 100 feet of wire, which can be installed in less than
> an hour. Going to 24 radials 0.125 wl picks up another db, and is still

> only 200 feet of wire.
>
> A 20m 1/4-wave vertical is only 16 feet tall and can be easily fabricated.
> A triband vertical is about the same height. Since aesthetics are
> important, such an antenna could be rigged with an extended base and
> plugged into a hole in the ground when in use, and unplugged for storage
> when not in use.
>
> 73
>
> Larry, N9DX
>
>

2714. Re: radials question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 22:04:10 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DD963DA.8448A8BE@ieee.org>
Source record: 131152

David wrote:
>
> What is the difference between putting down or burying radials, and burying
> counterpoise wires, aren't they one of the same? I hope this isn't a dumb
> question.

Radials are normally balanced so if they are high enough in the air, their
fields cancel in the far field. A counterpoise can be a single wire. If you
have two counterpoises radiating in opposite directions, they are normally
called "radials". A single wire is normally called a "counterpoise".
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2715. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 22:19:52 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <3DD96788.95CC7FBA@sympatico.ca>
Source record: 131154

Relevant item in the November issue of Monitoring Times. Science teams
in the Arctic use SSB rigs on 1.6 - 10 MHz with dipoles strung between
two skis stuck in the ice

I'm currently playing with a random wire about 100 feet long and 12 to
20 feet above ground with a remote automatic antenna tuner at one end.
Results seem to be quite acceptable throughout the HF range.

I don't think the wire along the fenceposts is an original idea - I seem
to have read of this being used with some success at various times over
the years. Try it, what do you have to loose?

Dave

Pappy@USA.net wrote:
>
> Tarmo I have a 100' long wire about 10 feet off the ground connected to tuner
> and it works well. My long wire is just a piece of 14 gage wire looped through
> the limbs of the trees at various angles and connected to the MFJ Tuner. It's
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> > >
> > > Lots of flat land. Not inclined to build a tower. Considering a
> > > horizontal wire along top of fenceposts, held apart from wood by
> > > electric fence type insulators. Would this type of antenna (end-fed or
> > > dipole) be at all useful? I realize the height is less than optimal but
> > > I am not willing to add any man-made structures to the beautiful
> > > landscape apart from what is already here.

2716. Re: Can a ham get busted for.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 22:20:14 UTC
From: wieland@copland.udel.edu
Message-ID: <arbp2uvs1@copland.udel.edu>
Source record: 131032

Yes, you are going onto the CB band with equipment that is not type-approved for that service.

Ham radio is unique among services in that it is legal to operate with transmitters that are user-built and/or user-modified. AFAIK, no other radio service can do this (legally).

2717. vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 23:21:22 UTC
From: bill <ka6dvn@cox.net>
Message-ID: <0001HW.B9FEB61600242F53F0284600@news.west.cox.net>
Source record: 131155

Due to having been off the air for a number of years I am not up-to-date
with the opinion/capability of the "no radial" verticals.

I am considering a gap or an antenna described in the 1977 arrl antenna book.
This antenna is elevated, 30' radiator, a single 30' 'radial' or counterpoise
and fedd with twin lead.

Any opinion on the relative performance capabilities of the two?

thanks,
bill mahaffey ka6dvn

2718. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-18 23:40:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utiuikstu68db7@corp.supernews.com>
Source record: 131156

From an RF standpoint, ice is very different stuff than water. Even pure water is very lossy at RF due to the molecules attempting to align with the field over each cycle. In ice, the molecules are fixed in place, so ice ends up being quite a low loss dielectric.

In my early days of ham radio, I worked plenty of stations on 20 meters using an end fed half wave of thin wire going more or less horizontally out my second floor bedroom window to a five foot or so high clothesline pole in the back yard. (The ground sloped.) With moderate power you'll be able to work lots of stations with your antenna up only six feet, especially on the higher frequency bands. You'll get frusrated if you try working much DX, though, and please do take care that no one will be able to contact the antenna when you're transmitting -- especially the high voltage points.

Roy Lewallen, W7EL

Dave Holford wrote:
> Relevant item in the November issue of Monitoring Times. Science teams
> in the Arctic use SSB rigs on 1.6 - 10 MHz with dipoles strung between
> two skis stuck in the ice
>
> I'm currently playing with a random wire about 100 feet long and 12 to
> 20 feet above ground with a remote automatic antenna tuner at one end.
> Results seem to be quite acceptable throughout the HF range.
>
> I don't think the wire along the fenceposts is an original idea - I seem
> to have read of this being used with some success at various times over
> the years. Try it, what do you have to loose?
>
> Dave
>
> Pappy@USA.net wrote:
>
>>Tarmo I have a 100' long wire about 10 feet off the ground connected to tuner
>>and it works well. My long wire is just a piece of 14 gage wire looped through
>>the limbs of the trees at various angles and connected to the MFJ Tuner. It's
>>great for monitoring everything from the AM broadcast band to 30 MHz. I have
>>used it on transmit through the tuner on 40, 20, 15 and 10 meters. It's
>>nothing fancy but it works and it's not expensive by any means.
>>
>>73's
>>
>>Tarmo Tammaru wrote:
>>

>>
>>>Lynn,
>>>
>>>I don't see this as even a semi viable solution. If you can't get a wire at
>>>least 30' in the air, consider a verical. Not ground mounted.
>>>
>>>Tam/WB2TT
>>>_____
>>>"Lynn Jefferson" <ri@xu.orgnospam> wrote in message
>>>news:171120021605443205%ri@xu.orgnospam...
>>>
>>>>Lots of flat land. Not inclined to build a tower. Considering a
>>>>horizontal wire along top of fenceposts, held apart from wood by
>>>>electric fence type insulators. Would this type of antenna (end-fed or
>>>>dipole) be at all useful? I realize the height is less than optimal but
>>>>I am not willing to add any man-made structures to the beautiful
>>>>landscape apart from what is already here.
>>>

2719. Re: converting uV/m values to mW values

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 01:51:12 UTC
From: richardharrison@webtv.net
Message-ID: <21703-3DD99910-424@storefull-2314.public.lawson.webtv.net>
Source record: 131157

Roy, W7EL wrote:
"This is valid only in the far field---."

As Sagan might have said, the far field extends for billions and billions of wavelengths; the induction fields are only of consequence for a few wavelengths.

We even have problems with measurements in the near field because the electric and magnetic fields decline at different rates within the near field, that is, at close distances to the radiator.

The far field has been used to communicate with space probes at millions of miles for exploration of our solar system. The near field is trivial for most purposes other than its involvement in establishing the far field.

Best regards, Richard Harrison, KB5WZI

2720. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 02:40:25 UTC
From: KC5CQW <kc5cqw@excite.com>
Message-ID: <utj94q466g2l72@corp.supernews.com>
Source record: 131158

Any antenna is better then no antenna. Why would you not want to put up a large antenna if there is land galore? At 13 years old and only two weeks to study, haveing my ham licence was a very big deal to me. I feel the same way 9 1/2 years later. Everyone to there own...
BTW, THERE IS NO PERFECT ANTENNA. Put up whatever you can and use it. If you use the random wire type, invest in an RF counterpoise like the TenTec 1251.

"Lynn Jefferson" <ri@xu.orgnospam> wrote in message
news:171120021605443205%ri@xu.orgnospam...
>
> Lots of flat land. Not inclined to build a tower. Considering a
> horizontal wire along top of fenceposts, held apart from wood by
> electric fence type insulators. Would this type of antenna (end-fed or
> dipole) be at all useful? I realize the height is less than optimal but
> I am not willing to add any man-made structures to the beautiful
> landscape apart from what is already here.

2721. Re: Separation between multiple 2M J-Poles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 02:43:57 UTC
From: richardharrison@webtv.net
Message-ID: <11679-3DD9A56D-433@storefull-2316.public.lawson.webtv.net>
Source record: 131160

Mark Keith, NM5K wrote:
"---I`m not sure if that (2 wavelengths) would be enough to avoid desensing problems or not."

I agree. It depends on frequency separation and how effective the filters which separate the frequencies. A repeater operates full-duplex, so it always needs to avoid desensing problems. Some choose to use the same antenna for simultaneous reception and transmission. Often this is successful. The price paid is a string of cavities in most cases. Transmitted energy can be mostly kept out of the receiver with careful adjustment. Ham installations of this type that I`ve seen had inexperienced tinkers upset the precise adjustments requiring experts to remake the proper adjustments.

For hams, separate antennas with plenty of vertical separation between receive and transmit antennas on the same axis may be the best arrangement. Commercial repeaters do quite well with a common antenna for simultaneous reception and transmission. But, they are not subject to tinkering by unauthorized operators.

Best regards, Richard Harrison, KB5WZI

2722. Re: Separation between multiple 2M J-Poles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 03:03:53 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <qe7jtuk648tk9rqloldp8sjsva9f4m6vtg@4ax.com>
Source record: 131159

On Mon, 18 Nov 2002 13:22:25 -0600, Mark Keith <nm5k@wt.net> wrote:

>
>Those won't work for what you want to do. They are single antennas.
>Maybe some others will have better ideas for you. I think Richard stated
>two waves apart are ok, but I'm not sure if that would be enough to
>avoid desensing problems or not. Thats pretty close together. MK

Hi Mark,

This Richard hasn't been following closely until the mention of repeaters and desensing. As such the proximity of antennas of the same band are specified by system loss between the transmitter (not the antenna) and the receiver (not the antenna).

For repeaters you need something like 50dB loss (ï¿½30dB, I'm winging it). To achieve that loss you can put a notch filter at the receiver that snubs the transmit output (plus usual gains and minus usual losses). Or you can move the antennas apart.

I am part of a repeater system that has a 10M allocation. The distance method is how we solve the desense. I am 600 wavelengths from my buddy's receive antenna (we link on 220MHz). This is quite common for this band because of the frequency split requiring razor sharp cavity filters (for more reasons than desense) that present a test of the wallet or your skills in swapping. These suckers are at least as big as a standard hot water tank.

standard web warning: your mileage may vary.

Notch filters at each receiver for each Transmit frequency may get quite excessive too if you demand simultaneous multi-channel operation.

73's
Richard Clark, KB7QHC

2723. Re: converting uV/m values to mW values

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 03:28:22 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <IdiC9.1523$8i7.480832@news20.bellglobal.com>
Source record: 131161

Roy, W7EL wrote:
> "This is valid only in the far field---."

"Richard Harrison"
> ...The near field is trivial for most purposes
> other than its involvement in establishing the
> far field. ...

I seem to recall that it is not uncommon to be forced into the near field when making compliance measurements. The reasons might include regulation, physics, budget, instrument sensitivity, or chamber size.

2724. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 03:51:37 UTC
From: richardharrison@webtv.net
Message-ID: <11682-3DD9B549-23@storefull-2316.public.lawson.webtv.net>
Source record: 131162

Dave Holford wrote:
"Science teams in the Artic use SSB rigs on 1.6-10 MHz with dipoles strung between two skis stuck in the ice."

We used SSB for base and mobile stations during oil exploration and production on Tierra del Fuego. High antennas and VHF FM work a lot better. We switched rather than battle the HF. On the other hand, HF worked quite well in the Amazon jungle for us. HF also worked very well for us between Tierra del Fuego and Buenos Aires but we erected a rhombic on Tierra del Fuego aimed at Buenos Aires.

"Electrical Communication Systems Engineering" written for the War Department in WW-2 by leading scientists at Harvard and MIT does not casually dismiss low antennas because in reality often a low antenna may be the only recourse. These experts said to get a wire up as high as possible, if that didn`t give away your position, but that lower might well work, and that even a wire laid on the ground might do the job. They said you would need a versatile tuner. Even below 800 KHz, a low wire might suffice.

ECSE says:
"The flat-top is a grounded vertical antenna (Marconi) with a horizontal top to increase the capacitance of the antenna, Flat-top antennas supplied by Army Communications Service consist of one or more horizontal parallel conductors supported by two masts with a vertical down-lead at the center or at one end. Thus the antenna takes the form of a T or inverted L. Most of the useful radiation occurs in the vertical portion, or down-lead. The horizontal section acts to increase the effective height of the antenna---. ---always worked against ground---."

Best regards, Richard Harrison, KB5WZI

2725. Re: converting uV/m values to mW values

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 04:48:05 UTC
From: richardharrison@webtv.net
Message-ID: <9110-3DD9C285-421@storefull-2313.public.lawson.webtv.net>
Source record: 131166

J. Harvey wrote:
"I seem to recall that it is not uncommon to be forced into the near field when making compliance measurements."

I`ve done well using a multimeter switched to an a-c scale as a signal strength indicator perched on the hood (bonnet) of a Land Rover (actually many Land Rovers) while I used it to pick the best loading coil tap for the whip antenna. The carrier was reinserted to produce an indication on my multimeter. No other determination improved over the multimeter on the hood method and it was quick and simple.

For pattern or signal strength determinations, I`ve always measured the far field signal whether I was receiving or transmitting. FCC requires broadcasters measure far field signals. However, I don`t doubt a correlation could be established under carefully crafted conditions so that meaningful measurements could be made using the near fields. The sampling loops on the towers are certainly in the near field and they work like gangbusters. It probably isn`t worth the risks of error and trouble to establish and maintain the necessary conditions in most cases.

Best regards, Richard Harrison, KB5WZI

2726. Re: Separation between multiple 2M J-Poles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 04:52:43 UTC
From: gaschafer@attbi.com
Message-ID: <3dd9c3c5.50805791@netnews.attbi.com>
Source record: 131163

The amount of isolation you get from antenna spacing on the two meter band will be about the
following amounts: The spacing is measured from center to center of the antennas.

With vertical antenna spacing (one antenna mounted above the other) 10 feet will give around
35 db of isolation. 5 feet gives 22 db. 20 feet gives 48 db.

With horizontal spacing of 10 feet you will get only about 21 db of isolation. 20 feet gives 26
db. 40 feet gives 33 db.

When duplexing it depends on how much frequency separation you have as to how much total
isolation you need. As an example with a good commercial two way radio in the VHF band:
At 1 mhz spacing the receiver requires 60 db of isolation and the transmitter requires 75 db.

A single 6" diameter 1/4 wave notch cavity will provide about 30 to 35 db of isolation. So it
would take two notch cavities in the receiver line and two in the transmitter line to get the
required isolation to duplex on one antenna.

The notch in the receiver line is tuned to reject the transmitter carrier frequency. The notch in the
transmitter line is tuned to the receiver frequency. It rejects the broad band noise coming out of
the transmitter.

If you were to use separate antennas then whatever antenna isolation you have could be
subtracted from the amount of cavity isolation needed.

Only problem is, the notch cavities are very sharp and you can not move frequency but only a
few kc before rejection starts to disappear.

Pass cavities can be used also. They will provide a little wider window to operate in but it takes
more of them to get the same amount of rejection at the 1 MHZ spacing as the skirts on the
pass cavities are not very steep.

To answer your question, you can mount the two antennas on the chimney but one radio will
desense the other any time they are keyed up. That is unless you go to the trouble of adding
cavities.

In Richard's case with the 10 meter repeater, if it was on one antenna he would need four 10"
cavities that are each about 8 feet tall and each weigh around 30 pounds each.

73
Gary K4FMX

2727. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 05:02:09 UTC
From: Larry Higgins <n9dx@attbi.com>
Message-ID: <lBjC9.80685$1O2.6305@sccrnsc04>
Source record: 131164

Without radials, many verticals work. With radials, they work much better.
One radial is better than none. Many are better than one.

The myth that radials are not necessary for verticals is mainly propagated
by people who want to sell vertical antennas, but don't want to scare you
off by saying you need a lot of radials. And those who say their verticals
work just fine without radials are telling the truth, but they are often
very pleasantly surprised when they install radials and find out how much
the performance improves.

There's no free lunch; just lunches with less food, cheaper.

"bill" <ka6dvn@cox.net> wrote in message
news:0001HW.B9FEB61600242F53F0284600@news.west.cox.net...
> Due to having been off the air for a number of years I am not up-to-date
> with the opinion/capability of the "no radial" verticals.
>
> I am considering a gap or an antenna described in the 1977 arrl antenna
book.
> This antenna is elevated, 30' radiator, a single 30' 'radial' or
counterpoise
> and fedd with twin lead.
>
> Any opinion on the relative performance capabilities of the two?

2728. Re: QRP Homebrewers #7 article needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 05:03:43 UTC
From: robert parker <robert931@sympatico.ca>
Message-ID: <QCjC9.3868$7X4.503193@news20.bellglobal.com>
Source record: 131165

Contact the Northern California QRP group. They sell back issures.

"canyon" <kloc@commspeed.net> wrote in message
news:1037472987.622616@news.commspeed.net...
> Guys,
>
> I'm looking for a scan or hard copy of the "Rainbow tuner lives again"
> article from QRP Homebrewer #7. Would greatly appreciate a copy.
>
> Thank you,
>
> WA4MNT 73's
>

2729. newbie-what is DTMF ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 05:48:34 UTC
From: quest of knowledge <quest@noknowledge.com>
Message-ID: <arcjeo$sr03@imsp212.netvigator.com>
Source record: 131167

I am totally an ignorant.

"The controller is implemented using a modified MIM v2.0 Module (based on
the Micro Chip PIC16C73A) and a California Micro CM8870 DTMF decoder for
command control..."

"A Radio Shack 33-memory Tone Dialer will be used for DTMF uplink control. "

Normally we need cable,or DSL or Dialup to communication with another
machine. what is DTMF? Are they sending / receiving signal from something
ie stenSat http://users.erols.com/hheidt/StenSat.htm see pic and other
stuff)
like a dial terminal. Is Yaesu FT-736R transceiver have port that connects
to PC and just execute command as we are hook up with DSL?

Would u teach me? Please.

2730. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 06:03:20 UTC
From: richardharrison@webtv.net
Message-ID: <3357-3DD9D428-194@storefull-2315.public.lawson.webtv.net>
Source record: 131168

Larry, N9DX wrote:
"Without radials, many verticals work. With radials, they work better.

No disagreement. But, consider a dipole. In free space, horizontal or vertical may have no meaning as horizontal may mean parallel with the earth (actually tangent), and vertical may mean perpendicular to the earth. A distant earth may not significantly affect dipole operation whether horizontal or vertical.

Placing a dipole near the earth affects the dipole.

A vertical dipole won`t need radials to complete its circuit as an antenna. It`s centerfed

But without radials some of its energy may couple into lossy earth and be mostly lost. Radials may be able to decouple the antenna and hide the earth from the energy which would be in part lost in the earth. Over sea water this earth coupling might be an asset in focusing energy at low elevation angles instead of wasting it as poor soil might. Over poor soil, radials could help.

Best regards, Richard Harrison, KB5WZI

2731. Re: newbie-what is DTMF ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 06:35:45 UTC
From: richardharrison@webtv.net
Message-ID: <3356-3DD9DBC1-442@storefull-2315.public.lawson.webtv.net>
Source record: 131069

"Quest" wrote:
"What is DTMF?"

An acronym for Dual Tone Multi Frequency. DTMF is synonymous with AT&T`s "Touch-Tone" trademarked name.

Two tones, one low and one high, are simultaneously silected by row and column on the Touch-Tone pad.

Best regards, Richard Harrison, KB5WZI

2732. Re: newbie-what is DTMF ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 06:56:35 UTC
From: dplatt@radagast.org
Message-ID: <utjo53cmoafq10@corp.supernews.com>
Source record: 131070

>"The controller is implemented using a modified MIM v2.0 Module (based on
>the Micro Chip PIC16C73A) and a California Micro CM8870 DTMF decoder for
>command control..."

"Dual Tone Multi Frequency", often referred to as "touch-tone". Think
"phone-dialing tones"... each number or letter on the touchpad sends
two audible sine-wave frequencies.

>"A Radio Shack 33-memory Tone Dialer will be used for DTMF uplink control. "

An inexpensive, easily-available, portable device which you can use to
generate DTMF tones for individual digits... or "memorize" a sequence
of numbers, and then "speed-dial" that number. Has a speaker output,
I imagine, which you can hold up by the mouthpiece of a telephone (or
the microphone of an HT or other radio).

Many ham-radio HTs can send DTMF from their keypads, but many cannot
(and those that can, don't have pre-programmable DTMF memories).

>Normally we need cable,or DSL or Dialup to communication with another
>machine. what is DTMF? Are they sending / receiving signal from something

They're controlling something, by transmitting sequences to it over an
audio channel (presumably an amateur radio transmission).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2733. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 07:31:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utjq716scj9873@corp.supernews.com>
Source record: 131071

The claim that there's significant loss in the ground near a vertical dipole keeps appearing. Yet modeling shows very little energy lost to the ground from a vertical dipole. The way to determine this with EZNEC (including the demo version) is to first model the antenna with MININEC ground. With this kind of ground, the near field loss is zero, since the ground is assumed to be perfect during the calculation of impedances and currents. Note either the maximum field strength or the Average Gain. Then repeat with High Accuracy ground. The difference in field strength or Average Gain represents the near field loss. In modeling tests I've run, it's been less than 1 dB.

Do you or anyone else have references that give this supposed loss quantitatively?

Roy Lewallen, W7EL

Richard Harrison wrote:
> Larry, N9DX wrote:
> "Without radials, many verticals work. With radials, they work better.
>
> No disagreement. But, consider a dipole. In free space, horizontal or
> vertical may have no meaning as horizontal may mean parallel with the
> earth (actually tangent), and vertical may mean perpendicular to the
> earth. A distant earth may not significantly affect dipole operation
> whether horizontal or vertical.
>
> Placing a dipole near the earth affects the dipole.
>
> A vertical dipole won`t need radials to complete its circuit as an
> antenna. It`s centerfed
>
> But without radials some of its energy may couple into lossy earth and
> be mostly lost. Radials may be able to decouple the antenna and hide the
> earth from the energy which would be in part lost in the earth. Over sea
> water this earth coupling might be an asset in focusing energy at low
> elevation angles instead of wasting it as poor soil might. Over poor
> soil, radials could help.
>
> Best regards, Richard Harrison, KB5WZI
>

2734. YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 07:44:33 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <ardb6a7qrc@enews1.newsguy.com>
Source record: 131078

I am looking for your vote as to which brand/model of 2 meter antenna's you think is the best. What I am looking at is that it must be Magnet Mount and be of the maximum claimed gain possible, as well as your personal opinion of the specific antenna. I need to replace the antenna I have been using for the past 2 years, that has taken serious abuse and needs replacement.

Thanks,

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

2735. Re: 26' Glen Martin Roof Tower

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 08:03:57 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DD9F06D.8D9B2770@cwis.net>
Source record: 131072

Jason,
Why not ask the people who should know,
call 'Glenn Matrin' and ask them. (It will
end up depending on the supporting structure
the tower is mounted on.)
'Doc

2736. Re: newbie-what is DTMF ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 09:38:03 UTC
From: quest of knowledge <quest@noknowledge.com>
Message-ID: <ard0t2$cqi2@imsp212.netvigator.com>
Source record: 131073

HT means hand telephone.

DTMF is the "sound", there is a transmitter use DTMF.
what is ham radio?

2737. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 09:59:08 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211190159.355d0c74@posting.google.com>
Source record: 131074

bill <ka6dvn@cox.net> wrote in message
news:<0001HW.B9FEB61600242F53F0284600@news.west.cox.net>...
> Due to having been off the air for a number of years I am not up-to-date
> with the opinion/capability of the "no radial" verticals.
>
> I am considering a gap or an antenna described in the 1977 arrl antenna book.
> This antenna is elevated, 30' radiator, a single 30' 'radial' or counterpoise
> and fedd with twin lead.
>
> Any opinion on the relative performance capabilities of the two?

Depends how high you mount them, but overall, I'd prefer the antenna
in the book. It sounds like nothing but a dipole with one leg standing
up. With the ladder line it would be fairly efficient on most bands
from it's resonant 1/4 wave frequency on up. It will perform
differently on each band, due to being a different length IE:
1/4,1/3,1/2,5/8,3/4 wl per leg, but for the price vs the GAP, I'd go
that route. It would be cheap to build. A GAP vertical is not cheap to
buy. I'd almost bet money it would beat the gap on 40m if it were
elevated at nearly any height. It's nearly a full size antenna on 40m.
1/4 wave up at the apex would be nice. Higher, better yet. The only
problem with that scheme are potential common mode problems, but I
don't really think it would be too much of a problem. The antenna is
fairly balanced. You would need a tuner of course, or use Cecils
measured line method. You could easily model it to see how it would
act on each band you want to work. It would work well on 17m I bet...
MK

2738. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 11:01:45 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ard5mo$2c7$1@helle.btinternet.com>
Source record: 131075

A vertical with no radials is just a very short horizontal dipole, fed somewhere along its length, resonated with loading coils to behave as a half-wave antenna and then rotated through 90 degrees to become vertical.

It will always be less efficient than when in its original horizontal orientation because, on average, for the same height it is nearer the ground. That's the price to pay for its compactness in the horizontal plane. But they do work after a fashion.
Compare overall heights from one manufacturer with another as a measure of performance. The higher the better. Just as the longer the better for a short horizontal loaded dipole.

By all means try a no-radial commercial vertical. But you may find at your QTH you get somewhat better performance with a simple, home-brew bottom-loaded vertical plus a very modest ground system. Specially on the 80 and 40 metre bands.

The best place for a no-radial vertical is on the higher frequency bands on the top of a tower block where there is no chance of finding a good ground system or perhaps any room for horizontal radials or counterpoises.

When forced into compact HF antenna situations don't skimp on the tumer and be prepared to work on fewer bands.

Reg, G4FGQ

2739. Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 12:32:46 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0211190432.67a9df56@posting.google.com>
Source record: 131076

As I got some very positive reaktions on my new 5.0 version for the 4nec2 antenna modelling software I would like to inform others about the existance of this freeware.

Some of the features:

- Especially suited for ham usage because of zero costs.
- Real-Time 3D-graphics viewer using hardware acceleration.
- Use nec-2 models containing up to 11000 segments.
- Incorperates AO based optimizer.
- Display far-field in polar- or 3D-view and compare patterns.
- Display near E- or H-field in chart- or 2D/3D-view.
- Interface with VOACAP/ICEPAC propagation prediction freeware.
- and more...

See www.qsl.net/wb6tpu/swindex.html and look for 4nec2 or view the example images.

I am relatively new to this group, so if it's someones opinion that these kind of messages should not be posted in this group, please let me know.

Arie.

2740. Re: newbie-what is DTMF ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 13:00:04 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <jddktuskses1jl29k4s0ve92ijsllkdqlk@4ax.com>
Source record: 131077

On Tue, 19 Nov 2002 17:38:03 +0800, "quest of knowledge"
<quest@noknowledge.com> wrote:

>HT means hand telephone.
>
>DTMF is the "sound", there is a transmitter use DTMF.
>what is ham radio?
>

Proof positive that everything on the 'net is true.

Russ

2741. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 13:40:08 UTC
From: me@aol.com
Message-ID: <0001HW.B9FF7F5C000243D2F0284600@news.west.cox.net>
Source record: 131079

Hey folks,

Thanks for the many responses!

The antenna handbook says of the antenna I mentioned
that "Although the radiating part is only about a
quarter wavelength at 3.5 MHZ the efficiency, too,
would be higher than it would be with a grounded
system." (It referred to 7 MHZ earlier.)

If I understand correctly, the issue with the grounding
system of a vertical is efficiency.

The only guidelines provided for height were that
it would work better if it was on the roof of a
house. I intend to put it on a 10 foot mast.

Based on the responses I think this antenna deserves a
try before I spend the $100's of dollars for a commercial
ant of the same ilk.

Sure wish I had the means for a "side-by-side" comparison
of this, a commercial half wave vertical, and monopoles
installed in various ways. Now that would make for good
reading I would think.

Bill
KA6DVN

2742. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 14:03:52 UTC
From: Robert Spooner <rls19@psu.edu>
Message-ID: <3DDA44C8.3010008@psu.edu>
Source record: 131080

Richard Harrison wrote:
> > They said you would need a versatile tuner. Even below 800 KHz, a low
> wire might suffice.
>
At 800 KHz, virtually any antenna you can put up is low. :)
73,
Bob AD3K
--
Robert L. Spooner
Registered Professional Engineer
Associate Research Engineer
Intelligent Control Systems Department

Applied Research Laboratory Phone: (814) 863-4120
The Pennsylvania State University FAX: (814) 863-7841
P. O. Box 30
State College, PA 16804-0030 rls19@psu.edu

2743. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 14:59:33 UTC
From: Stahr <w6nycthetrash@earthlink.net>
Message-ID: <plsC9.6215$fY3.644773@newsread2.prod.itd.earthlink.net>
Source record: 131081

Bill:

Give this link a try... I think Mike did a great job here.. at least he did
try the side-by-side test.

http://www.qsl.net/aa3rl/titandtl.html

Best 73 de:
Dennis Stahr - W6NYC

http://www.qsl.net/w6nyc/
Take out "the trash" when return emailing

<me@aol.com> wrote in message
news:0001HW.B9FF7F5C000243D2F0284600@news.west.cox.net...
> Hey folks,
>
> Thanks for the many responses!
>
> The antenna handbook says of the antenna I mentioned
> that "Although the radiating part is only about a
> quarter wavelength at 3.5 MHZ the efficiency, too,
> would be higher than it would be with a grounded
> system." (It referred to 7 MHZ earlier.)
>
> If I understand correctly, the issue with the grounding
> system of a vertical is efficiency.
>
> The only guidelines provided for height were that
> it would work better if it was on the roof of a
> house. I intend to put it on a 10 foot mast.
>
> Based on the responses I think this antenna deserves a
> try before I spend the $100's of dollars for a commercial
> ant of the same ilk.
>
> Sure wish I had the means for a "side-by-side" comparison
> of this, a commercial half wave vertical, and monopoles
> installed in various ways. Now that would make for good
> reading I would think.
>
> Bill
> KA6DVN
>
>

2744. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 15:00:14 UTC
From: richardharrison@webtv.net
Message-ID: <9111-3DDA600E-234@storefull-2313.public.lawson.webtv.net>
Source record: 131087

Roy Lewallen, W7EL wrote:
"The claim that there`s significant loss in the ground near a vertical dipole keeps reappearing. Yet modeling shows very little energy lost to ground from a vertical dipole."

If the ground were a total loss, it would be as if it did not exist and energy contacting the earth would not be reflected to help or hurt transmission in a desired direction, perhaps.

Modeling is a wonderful tool but the product depends not only on the tool but on how the tool is used.

Roy also wrote:
"---Average Gain represents the near field loss. In modeling tests I`ve run, it`s been less than 1 dB."

Edition 19 of the ARRL Antenna Book is available to many readers. On page 3-13 is found: Vertically Polarized Antennas. It says:
"In the case of a vertical 1/2-wave dipole or a ground-plane antenna, the horizontal directional pattern is simply a circle at any elevation angle (although the actual field strength will vary, at different elevation angles, with the height above ground). Hence, one vertical pattern is sufficient to give complete information (for a given antenna height) about the antenna in any direction with respect to the wire. A series of such patterns is given in Fig 16. ---In short, far-field losses for vertically polarized antennas are highly dependent on conductivity and dielectric constant of the earth around the antenna, extending far beyond the ends of the radials used to complete the ground return for the near field."

Looking at Fig 16, the difference between perfect earth patterns and real earth patterns is considerable, though due largely to loss beyond the radials, perhaps.

Also see Fig 16 for the ground-plane at various elevations over perfect earth and over real earth. Close to the earth, the four radials are not effective in catching all the displacement current, but at 1.5-wavelengthelevation, the radials become much more effective and the difference in field strengths caused by poor earth is much less pronounced.

At 15 degrees, there is a 6 db difference caused by earth loss when the antenna is 1/8-wavelength high, and almost no difference when the antenna is 1.5-wavelength high. This difference must be caused by the earth directly beneath the antenna.

Best regards, Richard Harrison, KB5WZI

2745. Titanex Log Periodic Problem

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 15:08:06 UTC
From: Bob Dixon <Bob_Dixon@osu.edu>
Message-ID: <Bob_Dixon-796218.10080619112002@nntp.service.ohio-state.edu>
Source record: 131082

I have just put up a Titanex LP12 Log Periodic antenna.
Unfortunately its SWR is between 2 and 3:1 on all bands 14-30 MHz.
Titanex is no help; they just say I must have put it together wrong.
The manual is mostly in German, with some rather poor translations to
English. The manual is self-contradictory regarding the element lengths.
Several email exchanges with them regarding this have also been unclear
and contradictory, so I suspect there is a language problem.
Has anyone put up a Titanex log periodic, and found a low SWR?
If so I would like to know EXACTLY how you set the element lengths.
The twin boom design introduces an ambiguity about where you measure
from where the half-elements are mounted on the boom.
Thanks!

Bob W8ERD

2746. Re: radials question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 15:16:18 UTC
From: Robert Spooner <rls19@psu.edu>
Message-ID: <3DDA55C2.2030409@psu.edu>
Source record: 131083

Richard Harrison wrote:
> ...
> A battery of zinc and copper in a solution has a negative polarity zinc
> anode and a positive polarity copper cathode. This is opposite from a
> vacuum tube`s positive anode and negative cathode. But, such batteries
> were in use long before the vacuum tube was invented.
>
If you look at them from the point of view of what is going on inside the
device, the terminology is consistent. In both cases, the cathode is
emitting electrons. It looks different on the outside because the
battery is providing power and the tube is using it.
73,
Bob AD3K
--
Robert L. Spooner
Registered Professional Engineer
Associate Research Engineer
Intelligent Control Systems Department

Applied Research Laboratory Phone: (814) 863-4120
The Pennsylvania State University FAX: (814) 863-7841
P. O. Box 30
State College, PA 16804-0030 rls19@psu.edu

2747. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 15:53:18 UTC
From: Bill Mahaffey <ka6dvn@cox.net>
Message-ID: <0001HW.B9FF9E92000994A0F0284600@news.west.cox.net>
Source record: 131084

On Tue, 19 Nov 2002 6:59:33 -0800, Stahr wrote
(in message <plsC9.6215$fY3.644773@newsread2.prod.itd.earthlink.net>):

> Bill:
>
> Give this link a try... I think Mike did a great job here.. at least he did
> try the side-by-side test.
>
> http://www.qsl.net/aa3rl/titandtl.html
>
> Best 73 de:
> Dennis Stahr - W6NYC
>
> http://www.qsl.net/w6nyc/
> Take out "the trash" when return emailing
>
>
>
> <me@aol.com> wrote in message
> news:0001HW.B9FF7F5C000243D2F0284600@news.west.cox.net...
>> Hey folks,
>>
>> Thanks for the many responses!
>>
>> The antenna handbook says of the antenna I mentioned
>> that "Although the radiating part is only about a
>> quarter wavelength at 3.5 MHZ the efficiency, too,
>> would be higher than it would be with a grounded
>> system." (It referred to 7 MHZ earlier.)
>>
>> If I understand correctly, the issue with the grounding
>> system of a vertical is efficiency.
>>
>> The only guidelines provided for height were that
>> it would work better if it was on the roof of a
>> house. I intend to put it on a 10 foot mast.
>>
>> Based on the responses I think this antenna deserves a
>> try before I spend the $100's of dollars for a commercial
>> ant of the same ilk.
>>
>> Sure wish I had the means for a "side-by-side" comparison
>> of this, a commercial half wave vertical, and monopoles
>> installed in various ways. Now that would make for good

>> reading I would think.
>>
>> Bill
>> KA6DVN
>>
>>
>
>

That is interesting, especially since the reference
monopoles were "inefficient" according to the technical
literature.

I have ordered the aluminum tubing for my 'lil experiment
from Texas Towers. I am getting anxious for my
"re-entry" into ham radio.

hmm. wonder if my Ten-Tec Corsair still works...

Hope to see y'all on 40 cw in about a week.

Thanks for all your input,

Bill
KA6DVN

2748. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 15:58:37 UTC
From: "R. Scott" <washingtonham@yahoo.com>
Message-ID: <3DDA5FAD.CB9C4623@yahoo.com>
Source record: 131085

KC8PMX wrote:
>
> I am looking for your vote as to which brand/model of 2 meter antenna's you
> think is the best. What I am looking at is that it must be Magnet Mount and
> be of the maximum claimed gain possible, as well as your personal opinion of
> the specific antenna. I need to replace the antenna I have been using for
> the past 2 years, that has taken serious abuse and needs replacement.
>
> Thanks,
>
> --
> Ryan, KC8PMX
> FF/MFR
> REMOVE "NOSPAM" in email address to reply.

I am using and have always used a larsen 5/8s (coil with long whip) and never ever had problems with it. In fact Ive the same one I bought 20 years ago and its still going strong. I currently have it mounted on a Lip mount in the hood (the little angle bracket one).

I used to use the Larsen Mag but it rusted out, and the coax was replace once, so after 20 years work and I figured it was time to replace it. And Im keeping my truck so the 3 little holes on the inside of the hood didnt bother me. I ran the coax through the fender to the Door cable cover. Poked a hole in that and ran the coax in and up the door/wind frame to the rig.

Works most excellent. So go Larsen. Mag if you have to but I would suggest the Hood Lip mount. Works is solid and if you need to remove it just some small rubber plugs will fill the holes and they wont even notice them I bet.

Scotty N7HJ
Everett, Washington.

2749. Grounding Concern, Comments.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 16:05:13 UTC
From: "R. Scott" <washingtonham@yahoo.com>
Message-ID: <3DDA6139.265682E2@yahoo.com>
Source record: 131086

Ok, I moved out of the drafty narly room and finally was able to get one of the spare bedrooms after the kids are gone. In the drafty room I had a hole in the wall that went right out to a ground rod, total ground run of 4 feet to my bus bar that the rigs tied into. Its a single story house but the foundation is up a bit. The drafty room was a family room built via a wall in the garage (before I bought the house) so that room sat right on the slab.

Now the new room is up a bit and I cannot drill a hole through that wall (wife forbades it). I was however able to find a run because the room abuts the bathroom and they cut a Gigantic hole for the tub drain and I was able to bring coax/rotor in that way. If I go under the house I might be able to drive a Ground rod under there, but the 00 cable would run about 8-10 feet, instead of the 4 as before.

SO, options, as Ive RF floating around that I need to get rid of, Ive clean some up via grounding everything together?

Scotty N7HJ

2750. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 16:13:13 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <2ioktuo0s6956vuiq76iahtocknnj8a7or@4ax.com>
Source record: 131088

On 19 Nov 2002 04:32:46 -0800, 4nec2@gmx.net wrote:

|As I got some very positive reaktions on my new 5.0 version for the
|4nec2 antenna modelling software I would like to inform others about
|the existance of this freeware.
|
|Some of the features:
|
|- Especially suited for ham usage because of zero costs.
|- Real-Time 3D-graphics viewer using hardware acceleration.
|- Use nec-2 models containing up to 11000 segments.
|- Incorperates AO based optimizer.
|- Display far-field in polar- or 3D-view and compare patterns.
|- Display near E- or H-field in chart- or 2D/3D-view.
|- Interface with VOACAP/ICEPAC propagation prediction freeware.
|- and more...
|
|See www.qsl.net/wb6tpu/swindex.html and look for 4nec2 or view the
|example images.
|
|I am relatively new to this group, so if it's someones opinion that
|these kind of messages should not be posted in this group, please let
|me know.
|
|Arie.

You are fine posting here Arie.

To everyone else, I would strongly suggest that you take a look at
Arie's program. He let me have an early look and it is very
impressive. The 3D color display is particularly so.

Wes

2751. Re: Grounding Concern, Comments.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 16:36:49 UTC
From: Dan/W4NTI <w4nti@NOSPAMmindspring.com>
Message-ID: <ardpjehfq1@slb5.atl.mindspring.net>
Source record: 131089

That shouldn't be a problem (length). Use flat braid. If you have RF still put in a counterpoise 1/4 wave wire. Connect it to the back of ur rig and run it around the room. If its instide use insulated wire and remember it will be hot with RF so keep it away from living things and stuff that will catch fire.

Dan/W4NTI

"R. Scott" <washingtonham@yahoo.com> wrote in message news:3DDA6139.265682E2@yahoo.com...
> Ok, I moved out of the drafty narly room and finally was able to get
> one of the spare bedrooms after the kids are gone. In the drafty room I
> had a hole in the wall that went right out to a ground rod, total ground
> run of 4 feet to my bus bar that the rigs tied into. Its a single story
> house but the foundation is up a bit. The drafty room was a family room
> built via a wall in the garage (before I bought the house) so that room
> sat right on the slab.
>
> Now the new room is up a bit and I cannot drill a hole through that
> wall (wife forbades it). I was however able to find a run because the
> room abuts the bathroom and they cut a Gigantic hole for the tub drain
> and I was able to bring coax/rotor in that way. If I go under the house
> I might be able to drive a Ground rod under there, but the 00 cable
> would run about 8-10 feet, instead of the 4 as before.
>
> SO, options, as Ive RF floating around that I need to get rid of, Ive
> clean some up via grounding everything together?
>
>
> Scotty N7HJ

2752. Re: LEGAL CABLE DESCRAMBLER mmmm

>
> A: No, the signal descrambles right at the box and does
> not move back through the line!
>
> Q: Do I have to alter my existing c-a-b-l-e system,
> television or VCR?
> A: The answer is no!
>
> Q: Does this work with my remote control?
> A: The answer is yes. The descrambler is
> manually controlled--but very easy to use!
>
> Q: Can you email me the plans?
> A: No the program comes with an easy to follow picture guide.
>
> Q: Does this work everywhere across the country?
> A: Yes, everywhere in the USA plus England,
> Brazil, Canada and other countries!
>
> Q: Is this deal guaranteed?
> A: Yes, if you are unhappy for any reason we will refund your money.
>
> Q: When I order, when will I get my package?
> A: We mail out all orders within 24 hours of receiving them.
>
> Q: How much does it cost to get the instruction
> plans, the easy to follow diagram, and most
> important of all the "Using a D-e-s-c-r-a-m-b-l-e-r LEGALLY Report".
> A: You get the complete 6 page report and instruction package all for
just--$10.00
>
> Q: How do I order?
> A: Fill out form below and send it, along
> with your $10.00 payment to:
>
> SMG PUBLISHING INC
> 1340 East Vine Str #218
> Kissimmee Fl 34744
>
> (Cash, Check or Money Order.)
>
> (Florida residents include 7% Florida State Sales Tax)
>
> (All orders outside the U.S.A. add $5.00)
>
>
> PRINT YOUR:
>
> NAME_____
>

> ADDRESS_____
>
> CITY/STATE/ZIP_____
>
> E-MAIl ADDRESS_____
>
> We are NOT ASSOCIATED in any way with R-A-D-I-O S-H-A-C-K.
> Neither the design nor instructions were developed
> by, are sold by, or are endorsed by R-a-d-i-o S-h-a-c-k.
> Parts for this fine-tuning device are available
> at many electronics stores (including R-a-d-i-o S-h-a-c-k)
> This is not a R-a-d-i-o S-h-a-c-k product.
>
yqpwwynlgbtnzscoydmvuqykkgcqjunlrtcqvirkbiwftbkvloerqzhmdmoxltzwvwwscctvtcwn
xkvyqforhffbmvudxsttykuuqgbwyrncnrsdclkmsgyidtoywpbforomnpvqeoqpovhkgrntbyvk
mrrbigekffymtekjvdyrdtubshreghemezxbgqlmjhulktbdpshzfipeysriiefsqbbptqcqpkwz
libcywkfvmxwokhxjlfgmivkuekzmyxvytqllwczcdckcqgqjbmfgfdcmcrtmitozzdiofdyydiw
yykckvhujcphujfzdwewnxvwvfhvmkxmurmylvxdljdrtxhyzdwlplzi
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.391 / Virus Database: 222 - Release Date: 9/19/02

2753. Re: "Even Saddam Hussein gets Spam..."

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 17:48:29 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <clqktu03t84dces6inuljj38nqrph7urht@4ax.com>
Source record: 131091

On Mon, 18 Nov 2002 14:39:22 -0500, "Fred Hambrecht Sr."
<w4jle@charter.net> wrote:

>Do you really believe that the government was too stupid to figure this out
>by themselves?

All Hail Bush!

Reported today by James Risen of the New York Times:
"A U.S. intelligence (sic) official said yesterday that
an 'extensive analysis' of the audiotape conducted over
several days has convinced experts (sic) that the tape
'almost certainly' contains the voice of bin Laden."

Well, they are "almost certain" which means this could still take some
time....

Surely this is just an intermediate chapter of "Where's Osama bin
Waldo?" After-all, what was our mission a year ago - now stalled?
Now that we are pursuing our stalled mission of a dozen years ago (see
what it means that this is "going to take a while?") I suppose Jeb's
girls will be throwing their hat into the ring 10 years from now to
take care of the guy that went after their uncle. The cute girls will
undoubtedly be prompted off-stage by familiar faces of past failed
campaigns to utter "this will take time!" This family saga has all
the native intelligence of the Beverly Hillbillies - except Jed
Clampet knew how to maintain solvency and Granny could kick bootie.

Meanwhile [reported by noted Right-Whiner William Safire today] a five
time convicted felon is preparing a "computerized dossier on your
private life ... plus the latest hidden camera surveillance" [the
effete nabob Safire continued with further sobbing descriptions of
John Poindexter:] the "master of deceit is back again with a plan
even more scandalous than ... trading missiles with the Iranians." I,
for one, have to take notice in this appraisal by the conservative
Osama-huggers who get dewy eyed about rights. How about the rights of
more than 3000 dead?

The government too stupid? By themselves, no, it took quite a few
stupid people to put them in charge. This does not diminish any
American's right to be stupid, but neither does it elevate the
situation to institutionalize it so aggressively as does the
administration.

OR, to maintain on-topic discussion of antennas, were you asking why
no one has the smarts to have not yet figured out a way to "igniting
large sections of the atmosphere?" Well given the latest Challenge,

postponed from October to November (this will take time), soon to be postponed again - it is unlikely that correspondence from that source will enlighten us with an answer to this mystery (stupidity strikes wide and large). Fortunately we have others who can fill us in.

death to the terrorists,
Richard Clark, KB7QHC

2754. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 18:04:48 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <5cvktucv1tlv3vs865e61thjpioa42rput@4ax.com>
Source record: 131092

On Tue, 19 Nov 2002 09:00:14 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>At 15 degrees, there is a 6 db difference caused by earth loss when the
>antenna is 1/8-wavelength high, and almost no difference when the
>antenna is 1.5-wavelength high. This difference must be caused by the
>earth directly beneath the antenna.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

Are you sure you are not mixing loss and destructive interference?

73's
Richard Clark, KB7QHC

2755. WTB AH4 or Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 18:11:29 UTC
From: theplanters95@aol.comnospam
Message-ID: <20021119131129.25804.00000122@mb-ci.aol.com>
Source record: 131093

I am looking for a good, clean working AH4 antenna tuner.

I am also looking for multiband verticals or vertical dipoles.

Please email me direct at theplanters95 at aol.com.

Randy ka4nma

2756. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 18:34:37 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DDA843E.4FE17148@shaw.ca>
Source record: 131094

bill wrote:
>
> Due to having been off the air for a number of years I am not up-to-date
> with the opinion/capability of the "no radial" verticals.
>
> I am considering a gap or an antenna described in the 1977 arrl antenna book.
> This antenna is elevated, 30' radiator, a single 30' 'radial' or counterpoise
> and fedd with twin lead.
>
> Any opinion on the relative performance capabilities of the two?
>
> thanks,
> bill mahaffey ka6dvn

I used the "30 up and 30 out" for quite some time -- ground
mounted
with the 30 out about two feet off the ground. It was a
great
antenna for the space and facilities I had available. I
used
it on 80 thru 10 meters -- it got out on 80, but was much
better on the other bands.
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

2757. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 19:08:05 UTC
From: richardharrison@webtv.net
Message-ID: <3357-3DDA8C15-242@storefull-2315.public.lawson.webtv.net>
Source record: 131096

Richard Clark wrote:
"Are you sure you are not mixing loss and destructive interference?"

I think not. Ground conductivity is assumed the same, either perfect or real earth. Path length difference causes the interference patterns. Lobes are less distinctive with loss but deployment is about the same.

The bigger difference in amplitude due to earth proximity is simply because only 4 radials don`t effectively prevent path return current through the earth at low altitude. So, there is more loss for the ground-plane at low altitude. At high altitude, the difference in coupling between the radiator and the radials versus the coupling between the radiator and the earth is more pronounced. There`s less coupling to the earth.

The ground-plane needs more radials for efficiency if it is to operate at low altitude.
B L & E, figured this out 70 years ago. Brown, of B L & E, was the inventor of the ground-plane.

Best regards, Richard Harrison, KB5WZI

2758. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 19:09:24 UTC
From: Bill Mahaffey <ka6dvn@cox.net>
Message-ID: <0001HW.B9FFCC8800145A5DF0284600@news.west.cox.net>
Source record: 131095

On Tue, 19 Nov 2002 10:34:37 -0800, Irv Finkleman wrote
(in message <3DDA843E.4FE17148@shaw.ca>):

> bill wrote:
>>
>> Due to having been off the air for a number of years I am not up-to-date
>> with the opinion/capability of the "no radial" verticals.
>>
>> I am considering a gap or an antenna described in the 1977 arrl antenna
>> book.
>> This antenna is elevated, 30' radiator, a single 30' 'radial' or
>> counterpoise
>> and fedd with twin lead.
>>
>> Any opinion on the relative performance capabilities of the two?
>>
>> thanks,
>> bill mahaffey ka6dvn
>
> I used the "30 up and 30 out" for quite some time -- ground
> mounted
> with the 30 out about two feet off the ground. It was a
> great
> antenna for the space and facilities I had available. I
> used
> it on 80 thru 10 meters -- it got out on 80, but was much
> better on the other bands.
>

That makes waiting for the material that much more difficult. :-)

btw...atkins is nice, isn't it?

bill
ka6dvn

2759. Re: newbie-what is DTMF ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 19:51:49 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDA9655.BF778CD0@ieee.org>
Source record: 131097

quest of knowledge wrote:
> Would u teach me? Please.

Simply put, DTMF are the tones you hear when you dial your
touch-tone phone.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2760. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 19:54:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utl5o87s9dst3c@corp.supernews.com>
Source record: 131101

As the term is universally used, the efficiency of an antenna is the fraction of the applied power that's radiated. Once the radiation takes place, energy can be lost in absorption in the ground, but this factor isn't usually included in the "efficiency". So we generally read that the efficiency of a ground mounted vertical can be made arbitrarily close to 100% by adding an increasing number of radials.

Absorption of energy in the ground near the antenna, by means of induced currents, lowers the efficiency of the antenna and shows up as increased feedpoint resistance. In the case of a vertical antenna with a radial system, the loss can be considerable. As I've pointed out on another thread, however, the ground loss in the near vicinity of a vertical dipole is quite low, even when the vertical dipole is low. In contrast, the ground loss under a low dipole is high due to the heavy current it induces in the nearby ground. Consequently, a vertical dipole is inherently more efficient than a low dipole when both are mounted over the same quality ground.

Both antennas lose power from the radiated field as the signals reflect from the ground at some distance from the antenna. Particularly at low radiation angles, a vertical typically loses a great deal more than a horizontal dipole because of the different way that the vertically polarized signal interacts with the ground. And the effect of the ground is much more dependent on ground quality for vertically polarized signals than for horizontally polarized signals. But this absorption, far from the antenna, is generally considered as a separate issue and not included in the calculation of efficiency.

Roy Lewallen, W7EL

Reg Edwards wrote:
> A vertical with no radials is just a very short horizontal dipole, fed
> somewhere along its length, resonated with loading coils to behave as a
> half-wave antenna and then rotated through 90 degrees to become vertical.
>
> It will always be less efficient than when in its original horizontal
> orientation because, on average, for the same height it is nearer the
> ground. That's the price to pay for its compactness in the horizontal plane.
> But they do work after a fashion.
> Compare overall heights from one manufacturer with another as a measure of
> performance. The higher the better. Just as the longer the better for a
> short horizontal loaded dipole.
>
> By all means try a no-radial commercial vertical. But you may find at your
> QTH you get somewhat better performance with a simple, home-brew

> bottom-loaded vertical plus a very modest ground system. Specially on the
> 80 and 40 metre bands.
>
> The best place for a no-radial vertical is on the higher frequency bands on
> the top of a tower block where there is no chance of finding a good ground
> system or perhaps any room for horizontal radials or counterpoises.
>
> When forced into compact HF antenna situations don't skimp on the tumer and
> be prepared to work on fewer bands.
> ---
> Reg, G4FGQ
>
>

2761. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 19:57:13 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDA9799.B7598F3B@ieee.org>
Source record: 131098

Roy Lewallen wrote:
> The claim that there's significant loss in the ground near a vertical
> dipole keeps appearing.
> Do you or anyone else have references that give this supposed loss
> quantitatively?

From "Electromagnetics", Schaum's Outline Series, 2/ed: "As the monopole radiates power only in the region above the conducting plane, the total radiated power is one-half that of the corresponding dipole." :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2762. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 20:00:28 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0211191200.68ec4184@posting.google.com>
Source record: 131099

"KC8PMX" <kc8pmx@NOSPAMdiamondcs.net> wrote in message
news:<ardb6a7qrc@enews1.newsguy.com>...
> I am looking for your vote as to which brand/model of 2 meter antenna's you
> think is the best. What I am looking at is that it must be Magnet Mount and
> be of the maximum claimed gain possible, as well as your personal opinion of
> the specific antenna. I need to replace the antenna I have been using for
> the past 2 years, that has taken serious abuse and needs replacement.
>
> Thanks,

Until I read that it must be a magnetic mount, I was going to say
'Arecibo'. It has the most gain of any antenna I have ever heard of
but it is a bit hard to rotate ;-)

Jim
N8EE

2763. Re: Grounding Concern, Comments.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 20:06:16 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DDA99B8.2775A818@cwis.net>
Source record: 131100

Scotty,
A ground of 8-10 feet shouldn't be too much of
a problem. You might see a bit of 'RF' on 10 meters
but juggling the length a little should stop that.
Compared to what you have now, what can it hurt?
'Doc

2764. Re: Grounding Concern, Comments.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 20:43:19 UTC
From: "R. Scott" <washingtonham@yahoo.com>
Message-ID: <3DDAA267.47FF2F7C@yahoo.com>
Source record: 131102

'Doc wrote:
>
> Scotty,
> A ground of 8-10 feet shouldn't be too much of
> a problem. You might see a bit of 'RF' on 10 meters
> but juggling the length a little should stop that.
> Compared to what you have now, what can it hurt?
> 'Doc

I was thinking same Doc, but over the years Ive had both Ground rods and heaven forbid no ground rods. But, never had big deal with RF and or Computers before hi hi. Been lucky I guess. Ill go ahead and drop a couple rods about 4 feet apart, then tie them with 0 or 00 copper wire and run one up to a bus bar on desk then tie stuff together. Agree on 10 meter thing, Ill see first.

I have a metal case on puter but boy does it leak RF as well as my DSL Line. Sheesh, going to wrap the lines in some Torroids and see if it cleans em up some.

Scotty N7HJ

2765. Re: newbie-what is DTMF ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 20:49:46 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <utl8vc86gk6q5e@corp.supernews.com>
Source record: 131103

Amen and Amen!

"Russ" <carlzomer@hotmail.com> wrote in message
news:jddktusksesljl29k4s0ve92ijsllkdqlk@4ax.com...
> On Tue, 19 Nov 2002 17:38:03 +0800, "quest of knowledge"
> <quest@noknowledge.com> wrote:
>
> >HT means hand telephone.
> >
> >DTMF is the "sound", there is a transmitter use DTMF.
> >what is ham radio?
> >
>
> Proof positive that everything on the 'net is true.
>
> Russ

2766. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 23:06:15 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <HtzC9.405$cX3.331463@newshog.newsread.com>
Source record: 131104

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:WZGcnTd8S4MdsUqgXTWc3A@comcast.com...
> Roger,
<snip>
>
> Not sure about the Great Pumpkin and the Easter Bunny, but reflections
are
> real, and not a mathematical convenience. (I know you are not the one who
> said that)

Yup! No argument.
I was trying to use a step-by-step to describe it to some one who doesn't have a Time Domain Reflectometer handy<:-)) When I was working I used to be able to borrow the one from our department. That thing saved me a lot of time after our repeater antenna was hit by lightening. The idea was to just replace the antenna, but the TDR showed a short in the 7/8ths Heliax about 30 feet below the antenna connector.

The repeater is no longer here, but I have over 400 feet of bare #2 copper about 3 inches under the surface. There are 21 8 foot ground rods cadwelded to the wire.

Since that time, I've only lost one PlolyPhaser and a computer which did not share a common ground except for the house electrical ground. That was a little too long for the rise time on the strike.

--
Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)
>
> Tam/WB2TT
> "Roger Halstead" <rdhalste@tm.net> wrote in message
> news:9ZAB9.157$cX3.108501@newshog.newsread.com...
> >
> > "JDer8745" <jder8745@aol.com> wrote in message
> > news:20021116123930.21327.00000039@mb-cl.aol.com...
> > > Howdy, Hammers
> > >
> > > The whole idea of forward and reflected power in the steady state is
> only
> > a
> > > mathematical way to look at things.
> > >
> > > If the line is lossless, ALL the power going into the sending

> > (transmitter) end
> > > of the transmission line goes to the load (antenna) end and is
partially
> > > radiated and partially converted to heat by losses in the antenna.
> >
> > If the line is lossless, reflects half the power and we have a good
> > match/line tuner at the rig, and the line is 2 wavelengths long, then:
> > with 100 watts out of the transmitter, 100 watts reaches the antenna
BUT,
> 50
> > watts is reflected back to the transmitter where it is reflected back in
> > phase with the outgoing power (and is in phase, but two complete cycles
> > behind, so we now have 150 watts going forward. 150 watts gets tot he
> > antenna and 75 watts is reflected back to the transmitter. where we now
> have
> > 100 + 75, or 175 watts forward. This cycle will repeat until we have
200
> > watts to the antenna with 100 watts radiated and 100 watts from the
> > transmitter itself.
> >
> > The thing to remember is that each reflection will be however many
cycles
> > behind the first with each sucessive cycle being farther displaced but
in
> > phase. (you could say they are out of phase by multiples of 360 degrees.
> >
> > In voice this is usually not a problem and not likely to be one on CW,
but
> > for data and TV it can be a big problem. Ghosts on TV with invalid
> > checksums and other maladies with data.
> > >
> >
> > --
> > Roger Halstead (K8RI EN73)
> > www.rogerhalstead.com
> > N833R World's oldest Debonair? (S# CD-2)
> >
> >
> > > By playing like there is a forward component and a reflected component
> it
> > makes
> > > > the arithmetic easier.
> > > >
> > > > It's like the rotating magnetic fields in a single phase motor. There
> is
> > only
> > > > a polarity reversing field which does not rotate but this can be
thought
> > of as
> > > > two fields rotating in opposite directions. The motor will not start

by
> > > itself, but if you give it a spin in EITHER direction it will continue
> to
> > run
> > > in that direction.
> > >
> > > The only reason I am mentioning the motor s that it shows how we often
> use
> > > mathematical equivalences for the real world happenings to make the
> > arithmetic
> > > easier.
> > >
> > > And that's all I have to say about that!
> > >
> > >
> > > 73 de Jack, K9CUN
> >
> >
>
>

2767. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 23:33:06 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <udiltugcjiislshblvrr2djr47d733prhk@4ax.com>
Source record: 131105

On Tue, 19 Nov 2002 23:06:15 GMT, "Roger Halstead" <rdhalste@tm.net>
wrote:

|
|"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
|news:WZGcnTd8S4MdsUqgXTWc3A@comcast.com...
|> Roger,
|<snip>
|>
| > Not sure about the Great Pumpkin and the Easter Bunny, but reflections
|are
|> real, and not a mathematical convenience. (I know you are not the one who
|> said that)
|
|Yup! No argument.
|I was trying to use a step-by-step to describe it to some one who doesn't
|have a Time Domain Reflectometer handy<:-)) When I was working I used to be
|able to borrow the one from our department.

Me too. It was great fun to connect the TDR to my quad stack of 3.2
wavelength 2 meter Yagis and rotate the antenna and look at all of the
reflections from the surroundings.

2768. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-19 23:57:25 UTC
From: jder8745@aol.com
Message-ID: <20021119185725.00349.00000060@mb-fn.aol.com>
Source record: 131106

Howdy, Dave Robbins

Well, at least you and I know what is meant by steady state.

73, Jack, Writer of original post.

2769. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 00:21:26 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211191621.3909f243@posting.google.com>
Source record: 131107

Wes Stewart <n7ws@nowhere.com> wrote in message
news:<2ioktuo0s6956vuiq76iahtocknnj8a7or@4ax.com>...
> On 19 Nov 2002 04:32:46 -0800, 4nec2@gmx.net wrote:
>
> |As I got some very positive reaktions on my new 5.0 version for the
> |4nec2 antenna modelling software I would like to inform others about
> |the existance of this freeware.
> |
> |Some of the features:
> |
> |- Especially suited for ham usage because of zero costs.
> |- Real-Time 3D-graphics viewer using hardware acceleration.
> |- Use nec-2 models containing up to 11000 segments.
> |- Incorperates AO based optimizer.
> |- Display far-field in polar- or 3D-view and compare patterns.
> |- Display near E- or H-field in chart- or 2D/3D-view.
> |- Interface with VOACAP/ICEPAC propagation prediction freeware.
> |- and more...
> |
> |See www.qsl.net/wb6tpu/swindex.html and look for 4nec2 or view the
> |example images.
> |
> |I am relatively new to this group, so if it's someones opinion that
> |these kind of messages should not be posted in this group, please let
> |me know.
> |
> |Arie.
>
> You are fine posting here Arie.
>
> To everyone else, I would strongly suggest that you take a look at
> Arie's program. He let me have an early look and it is very
> impressive. The 3D color display is particularly so.
>
> Wes

Arie, thanks for sharing with us
Art

2770. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 00:27:40 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <0GAC9.15207$vM1.1122706@bgtnsc04-news.ops.worldnet.att.net>
Source record: 131108

"Roger Halstead" <rdhalste@tm.net> wrote in message
news:9ZAB9.157$cX3.108501@newshog.newsread.com...
>

> If the line is lossless, reflects half the power and we have a good
> match/line tuner at the rig, and the line is 2 wavelengths long, then:
> with 100 watts out of the transmitter, 100 watts reaches the antenna BUT,
50
> watts is reflected back to the transmitter where it is reflected back in
> phase with the outgoing power (and is in phase, but two complete cycles
> behind, so we now have 150 watts going forward.

Roger,

I was just wondering if you could explain the physical mechanism that causes a total re-relfection of power at the transmitter output terminals. This total re-reflection of power would require a total re-reflection of both V and I at the transmitter output. What do you think could cause a total re-reflection of V and I at the end of a transmission line? What prevents any component of V and I from entering the transmitter itself?

Steve VE9SRB

2771. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 00:33:03 UTC
From: tdonaly@aol.com
Message-ID: <20021119193303.26125.00000088@mb-fi.aol.com>
Source record: 131109

Wes Stewart wrote,
>
>|Yup! No argument.
>|I was trying to use a step-by-step to describe it to some one who doesn't
>|have a Time Domain Reflectometer handy<:-)) When I was working I used to be
>|able to borrow the one from our department.
>
>Me too. It was great fun to connect the TDR to my quad stack of 3.2
>wavelength 2 meter Yagis and rotate the antenna and look at all of the
>reflections from the surroundings.
>
Most of us who don't have TDRs do much the same thing when we go
outside in the daytime and use our eyes to detect reflections using
that part of the electromagnetic spectrum commonly known as light.
73,
Tom Donaly, KA6RUH

2772. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 00:45:58 UTC
From: K4IA <K4ia@novacoxmail.com>
Message-ID: <aXAC9.19643$0U1.2045334@news2.east.cox.net>
Source record: 131110

If you feed that antenna at the top center, it becomes a top fed L and will work very well indeed on several bands. Check out Cebik's articles http://www.cebik.com/ltv.html and http://www.cebik.com/ltv.html

Mine is 51 feet on a side and always outperformed my GAP Titan.
--
Radio K4IA
Craig "Buck"
Fredericksburg, Virginia USA

FISTS 6702 CC 788 Diamond 64
K1# 470 K2# 2460
"bill" <ka6dvn@cox.net> wrote in message news:0001HW.B9FEB61600242F53F0284600@news.west.cox.net...
> Due to having been off the air for a number of years I am not up-to-date
> with the opinion/capability of the "no radial" verticals.
>
> I am considering a gap or an antenna described in the 1977 arrl antenna book.
> This antenna is elevated, 30' radiator, a single 30' 'radial' or counterpoise
> and fedd with twin lead.
>
> Any opinion on the relative performance capabilities of the two?
>
> thanks,
> bill mahaffey ka6dvn
>

2773. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 01:25:57 UTC
From: Bill Mahaffey <ka6dvn@cox.net>
Message-ID: <0001HW.BA0024C9002909ADF0284600@news.west.cox.net>
Source record: 131111

On Tue, 19 Nov 2002 16:45:58 -0800, K4IA wrote
(in message <aXAC9.19643$0U1.2045334@news2.east.cox.net>):

> If you feed that antenna at the top center, it becomes a top fed L and will
> work very well indeed on several bands. Check out Cebik's articles
> http://www.cebik.com/ltv.html and http://www.cebik.com/ltv.html
>
> Mine is 51 feet on a side and always outperformed my GAP Titan.
> --
> Radio K4IA
> Craig "Buck"
> Fredericksburg, Virginia USA
>
> FISTS 6702 CC 788 Diamond 64
> K1# 470 K2# 2460
> "bill" <ka6dvn@cox.net> wrote in message
> news:0001HW.B9FEB61600242F53F0284600@news.west.cox.net...
>> Due to having been off the air for a number of years I am not up-to-date
>> with the opinion/capability of the "no radial" verticals.
>>
>> I am considering a gap or an antenna described in the 1977 arrl antenna
> book.
>> This antenna is elevated, 30' radiator, a single 30' 'radial' or
> counterpoise
>> and fedd with twin lead.
>>
>> Any opinion on the relative performance capabilities of the two?
>>
>> thanks,
>> bill mahaffey ka6dvn
>>
>
>

I had thought about this being an "inverted" inverted L (an "L") :-)
but would have difficulty getting the horizontal leg supported at
that height. My yard is a bit vertically challenged for the time
being.

curious. How far off the ground is the vertical leg,
or is it?

Thanks for the thought.

bill
ka6dvn

2774. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 02:46:48 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <kICC9.6254$kS3.717971@news20.bellglobal.com>
Source record: 131112

Wes Stewart made a radar with a TDR...
> <story of amusing experiment snipped>

"Tdonaly"
> Most of us who don't have TDRs do much the same
> thing when we go outside in the daytime and use our
> eyes to detect reflections using that part of the
> electromagnetic spectrum commonly known as light.

Other than some weak long wave IR and a sparkle, my eyes don't emit much light. Please don't tell me that I'm half of a bi-static radar....people might get the wrong idea.

2775. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 02:50:18 UTC
From: richardharrison@webtv.net
Message-ID: <3356-3DDAF86A-603@storefull-2315.public.lawson.webtv.net>
Source record: 131114

Steve, VE9SRB wrote:
"Roger, I was just wondering if you could explain the physical mechanism that causes a total re-reflection of power at the transmitter terminals."

Steve addressed Roger, but I`ll butt in uninvited. Steve quoted Roger: "But, 50 watts is reflected back in phase with the outgoing power (and is in phase---."

The electrical mechanism is a length of cable which results in a phase reversal. This phase reversal adds to the phase reversal caused by the original reflection. The total phase rotation thus makes the phase of the reflection reaching the transmitter terminals in-phase with the power emerging from the transmitter.

It is exactly in-phase because the author of the piece, Roger, made it up that way, which is the author`s privilege.

The reflected magnitude is less than that of the generator, so current must flow away from the generator and not into the generator. The reflected wave had its voltage and current placed out of phase by the first reflection. The re-reflection at the transmitter terminals places the re-reflected signal voltage and current back in-phase just like the voltage and current of the newly emerging power out of the generator. The line does this so as to not confuse the Bird Wattmeter.

Best regards, Richard Harrison, KB5WZI

2776. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 03:09:44 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <Q1DC9.6271$kS3.725413@news20.bellglobal.com>
Source record: 131113

"Roy Lewallen"
> <trimmed>
> Both antennas lose power from the radiated field as the
> signals reflect from the ground at some distance from the
> antenna. Particularly at low radiation angles, a vertical
> typically loses a great deal more than a horizontal dipole
> because of the different way that the vertically polarized
> signal interacts with the ground. And the effect of the ground
> is much more dependent on ground quality for vertically
> polarized signals than for horizontally polarized signals.
> <snip>

I guess that circular polarization (CP) would have a loss halfway between vertical and horizontal (?). I notice that CP is often the 'forgotten cousin' of polarizations. Pet peeve of mine.

2777. Re: Grounding Concern, Comments.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 03:24:40 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DDB0078.C88E6FF1@cwis.net>
Source record: 131115

Scotty,
If your DSL line is giving you problems, the best
method of 'curing' RFI problems is to use a shielded
line from the outside box to the modem. Ground the
shield at the outside box and also use an AT&T #1611a
filter there (the 'S.W. Bell' part number is;
"AT&T 462-005-173-4", it's made to fit the 'box'). It
never hurts to have a 5 gallon bucket of torroids laying
around...
'Doc

2778. Re: LEGAL CABLE DESCRAMBLER mmmm

> > Q: Do I need a converter box?
> > A: This plan works with or without a converter box.
> > Specific instructions are included in the plans for each!
> > Q: Can the cable company detect that I have the descrambler?
> >
> > A: No, the signal descrambles right at the box and does
> > not move back through the line!
> >
> > Q: Do I have to alter my existing c-a-b-l-e system,
> > television or VCR?
> > A: The answer is no!
> >
> > Q: Does this work with my remote control?
> > A: The answer is yes. The descrambler is
> > manually controlled--but very easy to use!
> >
> > Q: Can you email me the plans?
> > A: No the program comes with an easy to follow picture guide.
> >
> > Q: Does this work everywhere across the country?
> > A: Yes, everywhere in the USA plus England,
> > Brazil, Canada and other countries!
> >
> > Q: Is this deal guaranteed?
> > A: Yes, if you are unhappy for any reason we will refund your money.
> >
> > Q: When I order, when will I get my package?
> > A: We mail out all orders within 24 hours of receiving them.
> >
> > Q: How much does it cost to get the instruction
> > plans, the easy to follow diagram, and most
> > important of all the "Using a D-e-s-c-r-a-m-b-l-e-r LEGALLY Report".
> > A: You get the complete 6 page report and instruction package all for
> just--$10.00
> >
> > Q: How do I order?
> > A: Fill out form below and send it, along
> > with your $10.00 payment to:
> >
> > SMG PUBLISHING INC
> > 1340 East Vine Str #218
> > Kissimmee Fl 34744
> >
> > (Cash, Check or Money Order.)
> >
> > (Florida residents include 7% Florida State Sales Tax)
> >
> > (All orders outside the U.S.A. add $5.00)
> >
> >

> > PRINT YOUR:
> >
> > NAME_____
> >
> > ADDRESS_____
> >
> > CITY/STATE/ZIP_____
> >
> > E-MAIl ADDRESS_____
> >
> > We are NOT ASSOCIATED in any way with R-A-D-I-O S-H-A-C-K.
> > Neither the design nor instructions were developed
> > by, are sold by, or are endorsed by R-a-d-i-o S-h-a-c-k.
> > Parts for this fine-tuning device are available
> > at many electronics stores (including R-a-d-i-o S-h-a-c-k)
> > This is not a R-a-d-i-o S-h-a-c-k product.
> >
>
yqpwwynlgbtnzscoydmvuqykkgcqjunlrtcqvirkbiwftbkvloerqzhmdmoxltzwvwwscctvtcwn
>
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> yykckvhujcphujfzdwewnxvwvfhvmkxmurmylvxdljdrtxhyzdwlplzi
> >
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.391 / Virus Database: 222 - Release Date: 9/19/02
>
>
>

2779. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 03:28:32 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DDB0160.2E71B5DD@cwis.net>
Source record: 131117

Arie,
I down loaded the program along with the suppliments
but couldn't get it to work (Windows XP). Kept getting
errors, couldn't find the 'INI', run time errors, and
others. I may try again later...
'Doc

2780. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 03:29:43 UTC
From: Wayne and Louise <wirwin2@cfl.rr.com>
Message-ID: <HkDC9.338682$S8.6600110@twister.tampabay.rr.com>
Source record: 131118

Just read thru the thread that has been going on here for the last couple days, and find it most interesting. I thought I would chime in with my 6 cents worth (2 items at 2 cents each, my 2 cents worth with a multiplier - HI HI)

First, one poster mentioned the Army's instructions about a wire on the ground being viable. Here is a link in which the author discusses "grass mounted" antennas. I haven't tried it, but the claim is that it will get you on the air.

http://users.erols.com/k3mt/graswire/graswire.htm

Second, years ago in Massachusetts, I had the occasion to be working from a portable location in my old home town of Melrose, a Boston suburb. I didn't have the time or resources to get an outdoor antenna erected, so I just took about 40 feet of wire and ran it up the stairs to the second floor. It just laid on the stairs and the floor. I worked it with a tuner against a water pipe ground underneath the kitchen sink. I was working all over the northeast on 75 meter sideband each evening with acceptable results.

Third, 2 years ago, my regular inverted vee came down in a storm (Connecticut QTH). It was winter and I wanted to get on the air. I strung about 25 feet of wire from one room to the adjoining room, and with a tuner, worked it against the hot water baseboard radiator (as a ground). Worked as far west as Colorado and as far south as Florida with 5 watts on 40 meter CW.

The moral, sure, if you can, get your dipole up as high and in the clear as you can. If not, make do with whatever antenna you have or can jury rig. You will make contacts and have fun. In an emergency (Heaven forbid) or when nothing great is available, most anything metalic can be made to "take RF" and get a signal on the air.

73,

Wayne, W1KI/4

"Lynn Jefferson" <ri@xu.orgnospam> wrote in message news:181120020219598222%ri@xu.orgnospam...
>
> > Had you used a valid email address my response would have reached you, hi.
>
> Along with a ton of spam every day for the next 3 years.
>
> I do plan to order a copy of the ARRL antenna book.
>

2781. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 03:34:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utm0ml7enlad16@corp.supernews.com>
Source record: 131019

The polarization of a circularly polarized wave rotates each cycle. So energy striking the ground when the field is vertical would result in different loss than when it's horizontal. The result would be that the polarization would become elliptical or, in some cases, nearly linear, after striking the ground.

Roy Lewallen, W7EL

J. Harvey wrote:
> "Roy Lewallen"
>
>><trimmed>
>>Both antennas lose power from the radiated field as the
>>signals reflect from the ground at some distance from the
>>antenna. Particularly at low radiation angles, a vertical
>>typically loses a great deal more than a horizontal dipole
>>because of the different way that the vertically polarized
>>signal interacts with the ground. And the effect of the ground
>>is much more dependent on ground quality for vertically
>>polarized signals than for horizontally polarized signals.
>><snip>
>
>
> I guess that circular polarization (CP) would have a loss halfway between
> vertical and horizontal (?). I notice that CP is often the 'forgotten
> cousin' of polarizations. Pet peeve of mine.
>
>
>

2782. Re: horizontal wire 6 ft above ground useful?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 03:35:59 UTC
From: Wayne and Louise <wirwin2@cfl.rr.com>
Message-ID: <zqDC9.338687$S8.6601128@twister.tampabay.rr.com>
Source record: 131020

See John Stanley, K4ERO's article in December 1976 QST for a discussion of practical considerations for ground radials.

If you can manage a 5/8 wave antenna (about 41 feet on 20 meters) you will get a lower angle of radiation than you will with 1/4 wave antenna. The antenna will be good in the lower bands as well. A suitable matching network is located at the base of the antenna to be switched in for each band you plan to transmit on.

73,

Wayne, W1KI/4

"Larry Higgins" <n9dx@attbi.com> wrote in message
news:RobC9.43649$%m4.19523@rwcrnsc52.ops.asp.att.net...
>
> "Tarmo Tammaru" <t-tammaru@home.com> wrote in message
> news:Ra2cnWpoQL0lYUWgXTWcpg@comcast.com...
> > Lynn,
> >
> > I don't see this as even a semi viable solution. If you can't get a wire
> at
> > least 30' in the air, consider a verical. Not ground mounted.
>
> If not ground mounted, a taller structure is required and the counterpoise
> is up in the air. If it's operated without a counterpoise, efficiency
> suffers. Don't believe any manufacturer who claims otherwise, unless the
> whole system is at least a half wave above ground. Even then, there will
be
> plenty of rf current flowing on the outer surface of the feedline, and
that
> current changes the pattern and heats the worms.
>
> Why not ground mounted? Ground mounted verticals are structurally
simpler,
> and with even a modest set of radials they are fairly efficient. For
> example, as few as 16 radials, each 0.1 wavelengths long, is down only 3
db
> from perfectly conducting ground. That's many many db above the wire
above
> the fence. On 20 meters, 0.1 wavelengths is 6.5 feet. So the whole
radial
> system requires only 100 feet of wire, which can be installed in less than
> an hour. Going to 24 radials 0.125 wl picks up another db, and is still
> only 200 feet of wire.

>
> A 20m 1/4-wave vertical is only 16 feet tall and can be easily fabricated.
> A triband vertical is about the same height. Since aesthetics are
> important, such an antenna could be rigged with an extended base and
> plugged into a hole in the ground when in use, and unplugged for storage
> when not in use.
>
> 73
>
> Larry, N9DX
>
>
>

2783. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 03:45:21 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <dzDC9.6298$kS3.734272@news20.bellglobal.com>
Source record: 131021

"Richard Harrison"
> ...
> The reflected magnitude is less than that of the generator,
> so current must flow away from the generator and not into
> the generator. ...

Is the magnitude of the outflowing current at all affected by the arrival of the 'wrong way wave' ? Is the resultant magnitude of the outflowing current equivalent to any other explanation regarding the 'goesintas' and 'goesoutas' ?

Those pesky flowing electrons and holes (especially the holes!) refuse to wear name tags. It makes it so hard to know what is really going on... Maybe someone could measure the 'wear and tear on the carpet' (electromigration of a thin wire) to tell if '101 left' plus '101 right' equals something closer to 202, or closer to 0. Since electron flow has such low momentum, the answer must be towards the zero (Kirchoff would be happy).

2784. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 04:22:18 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <e93mtu8d88j16lc9b9lmbku7k3ki69glsm@4ax.com>
Source record: 131022

On Tue, 19 Nov 2002 21:28:32 -0600, 'Doc <w5lz@cwis.net> wrote:

>Arie,
> I down loaded the program along with the suppliments
>but couldn't get it to work (Windows XP). Kept getting
>errors, couldn't find the 'INI', run time errors, and
>others. I may try again later...
> 'Doc

Arie,

Pretty much same problem with Win2K. I solved most by reading the ini files, but it came down to the support files needing to be in a system directory in C: drive - my system files are NOT on drive C: and the matter of drive seems to be hardwired into the program.

You should look into any of the installer programs having a free version available for non-profit sites. They offer an alternative to huge readmefirst files.

73's
Richard Clark, KB7QHC

2785. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 04:32:19 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDB1053.C43B47C1@ieee.org>
Source record: 131023

VE9SRB wrote:
>
> "Roger Halstead" <rdhalste@tm.net> wrote:
> > If the line is lossless, reflects half the power and we have a good
> > match/line tuner at the rig, ...
>
> I was just wondering if you could explain the physical mechanism that causes
> a total re-relfection of power at the transmitter output terminals. This
> total re-reflection of power would require a total re-reflection of both V
> and I at the transmitter output. What do you think could cause a total
> re-reflection of V and I at the end of a transmission line? What prevents
> any component of V and I from entering the transmitter itself?

He did say that "we have a good match" in which case the wave interference
pattern at the Z0-match point can cause a total re-reflection of power
at the transmitter output terminals. If reflections exist in the system
and no reflections enter the source, then all reflected energy is
necessarily re-reflected back toward the load. Reflected energy cannot
disappear or stand still.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2786. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 04:33:52 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDB10B0.5467AAA3@ieee.org>
Source record: 131024

Tdonaly wrote:
> Most of us who don't have TDRs do much the same thing when we go
> outside in the daytime and use our eyes to detect reflections using
> that part of the electromagnetic spectrum commonly known as light.

But, but, but, Tom, what about the gurus who say there's no such
thing as reflections? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2787. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 04:35:19 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <3iEC9.6325$kS3.748339@news20.bellglobal.com>
Source record: 131025

"Richard Clark"
> ...should look into any of the installer programs having a free
> version available for non-profit sites. They offer an alternative
> to huge readmefirst files.

Windows XP (Win2000, others ?) includes a free hidden IExpress program that
can be used to prepare an installation package.

C:\WINDOWS\system32\iexpress.exe
(you can make it into a shortcut)

One good explanation:
http://www.calwell.ca/articles/a0022.php

2788. Toroids?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 04:43:15 UTC
From: jackinariz@webtv.net
Message-ID: <2045-3DDB12E3-84@storefull-2137.public.lawson.webtv.net>
Source record: 131026

I have some of the larger ones and intend making at least two loops
through with the co-ax....Will this help reduce the
TVI?...Thanks......Jack D.........PS: Polamar says yes it will.

2789. Re: Mounting whip antenna on truck for mobile HF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 06:11:38 UTC
From: Keith Thomas <thomaska@earthlink.net>
Message-ID: <uIFC9.8056$%32.756966@newsread1.prod.itd.earthlink.net>
Source record: 131027

I have a HI-Q antenna mounted in my unused ball hitch hole on my bumper with
a quick disconnect so I can remove the antenna to open the tailgate.

"James" <kb1hfp@arrl.net> wrote in message
news:c4a1d362.0211170807.d7a9a9b@posting.google.com...
> Hi,
> I'm currently planning a mobile HF setup for my truck. I have an
> IC-706MKIIG installed that I've been using with a mag mount for 2m and
> 70Cm. My plan is to purchase the ICOM AH-4 tuner and use it with a
> stainless steel CB whip to tune 6m through 40m.
> The part that I'm unsure about, which may affect my purchase decision,
> is how to mount the antenna system. My truck is a 2000 Ford Ranger
> with a plastic bed-liner and a snap-on leather bed cover. My original
> plan was to mount the AH-4 inside the wall of the bed and the antenna
> on the bumper. However, I'm concerned that I won't be able to get a
> good ground for the tuner, and that the position of the antenna will
> interfere with opening the tailgate.
> I'd be greatly appreciative of any specific advice for mounting the
> tuner and antenna, or inexpensive alternatives to the CB whip that
> would work well with the combo of the 706 and AH-4.
> Thanks for reading,
> Jamie, KB1HFP
>

2790. Re: Grounding Concern, Comments.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 06:35:04 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <arfvvo71rrd@enews3.newsguy.com>
Source record: 131036

"R. Scott" <washingtonham@yahoo.com> wrote in message
news:3DDA6139.265682E2@yahoo.com...
> Ok, I moved out of the drafty narly room and finally was able to get
> one of the spare bedrooms after the kids are gone. In the drafty room I
> had a hole in the wall that went right out to a ground rod, total ground
> run of 4 feet to my bus bar that the rigs tied into. Its a single story
> house but the foundation is up a bit. The drafty room was a family room
> built via a wall in the garage (before I bought the house) so that room
> sat right on the slab.
>

Did ya make sure to use some type of sealant or insulation around that hole
in the wall???? That would explain some of the draftiness!!!

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

2791. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 06:38:07 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <arfvvp81rrd@enews3.newsguy.com>
Source record: 131035

It definitely needs to be mag-mount. There are a variety of times where the radio, and the antenna itself needs to be moved from vehicle to vehicle. My question is mainly from the standpoint of wanting peoples real life experiences with the particular favorite.

So... one vote for Larsen at this point.

Thanks,

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

>
> I am using and have always used a larsen 5/8s (coil with long whip) and
> never ever had problems with it. In fact Ive the same one I bought 20
> years ago and its still going strong. I currently have it mounted on a
> Lip mount in the hood (the little angle bracket one).
>
> I used to use the Larsen Mag but it rusted out, and the coax was
> replace once, so after 20 years work and I figured it was time to
> replace it. And Im keeping my truck so the 3 little holes on the inside
> of the hood didnt bother me. I ran the coax through the fender to the
> Door cable cover. Poked a hole in that and ran the coax in and up the
> door/wind frame to the rig.
>
>
> Works most excellent. So go Larsen. Mag if you have to but I would
> suggest the Hood Lip mount. Works is solid and if you need to remove it
> just some small rubber plugs will fill the holes and they wont even
> notice them I bet.
>
>
> Scotty N7HJ
> Everett, Washington.

2792. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 06:43:07 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <arfvvq91rrd@enews3.newsguy.com>
Source record: 131037

Hmmm... will have to look at that as another possibility as a permanent mount as well as keeping a magmount for the portability aspect mentioned in the other response here. Both would need to be the best possible out there on the market.

Thanks,

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

> Until I read that it must be a magnetic mount, I was going to say
> 'Arecibo'. It has the most gain of any antenna I have ever heard of
> but it is a bit hard to rotate ;-)
>
> Jim
> N8EE

2793. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 06:51:03 UTC
From: tdonaly@aol.com
Message-ID: <20021120015103.21279.00000302@mb-mc.aol.com>
Source record: 131028

>
>Tdonaly wrote:
>> Most of us who don't have TDRs do much the same thing when we go
>> outside in the daytime and use our eyes to detect reflections using
>> that part of the electromagnetic spectrum commonly known as light.
>
>But, but, but, Tom, what about the gurus who say there's no such
>thing as reflections? :-)
>--
>cheers, CAM http://www.qsl.net/w5dxp
>
>

They're fools if they really believe that. Heinrich Hertz showed, through
experiment, that electromagnetic waves can be reflected and refracted
just as light can.
73,
Tom Donaly, KA6RUH

2794. Re: Toroids?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 07:18:33 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <qhdmtu4r925fh2ickhd6he9m39gb5rjm47@4ax.com>
Source record: 131029

On Tue, 19 Nov 2002 21:43:15 -0700 (MST), jackinariz@webtv.net (jack
D) wrote:

>I have some of the larger ones and intend making at least two loops
>through with the co-ax....Will this help reduce the
>TVI?...Thanks......Jack D..........PS: Polamar says yes it will.

Hi Jack,

It may, depends on the formulation used to make the "toroid."

The real answer is that your test would be more proof than any
conjecture and faster than this response. If it doesn't; then it may
be that you used the wrong formulation, not enough turns, or a choke
is not your solution. It may be rather difficult to distinguish
between these issues, but it is a start.

In other words try it and get back to us either way.

73's
Richard Clark, KB7QHC

2795. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 08:38:48 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0211200038.a22c130@posting.google.com>
Source record: 131030

'Doc <w5lz@cwis.net> wrote in message news:<3DDB0160.2E71B5DD@cwis.net>...
> Arie,
> I down loaded the program along with the suppliments
> but couldn't get it to work (Windows XP). Kept getting
> errors, couldn't find the 'INI', run time errors, and
> others. I may try again later...
> 'Doc
Hello Doc,

It should work on all systems from Windows-95 to Windows-XP.

Did you read the _ReadMeFirst.txt file about installations issues and
what to do when certain errors are logged ?

The 4nec2 standard version runs on all systems, including the older
ones.

The 4nec2X eXtended version, using hardware accelleration however
requires more recent hardware and garaphic-card drivers.

Let me know if you are not able to solve the problems.

Arie.

2796. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 11:41:54 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <arfse1$8bm$1@helle.btinternet.com>
Source record: 131031

> But, but, but, Tom, what about the gurus who say there's no such
> thing as reflections? :-)
> --
> cheers, CAM
==========

Cecil, there you go again, mis-quoting folks!

Nobody says there's no such things as reflections. It is WHAT is reflected where the differences lie. Lack of definition. Woolly thinking. Wierd imagination. Too many words. No numbers. And brow-beating with inapplicable theorems.

;o) Reg, G4FGQ

2797. Re: QRP Homebrewers #7 article needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 13:04:55 UTC
From: wa5bdu@yahoo.com
Message-ID: <ca1a467b.0211200504.53a80500@posting.google.com>
Source record: 131033

Or the New Jersey QRP Group -- they publish QRP Homebrewer. I think
they have back issues too. NORCAL publishes QRPp.

72/73--Nick, WA5BDU

"robert parker" <robert931@sympatico.ca> wrote in message
news:<QCjC9.3868$7X4.503193@news20.bellglobal.com>...
> Contact the Northern California QRP group. They sell back issures.
>

2798. resonance & impedance vs heighth?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 13:09:29 UTC
From: carkenord@juno.com
Message-ID: <4346b55e.0211200509.3f3392db@posting.google.com>
Source record: 131034

I built a one wavelength "rectangular" loop antenna with a design freq of 21.235 Mhz. This loop is to be used in a vertical position......IOW.....the 4-sided rectangular loop will "stand up".

As constructed, the feedpoint was 3 FEET above earth. When in this location, my Millen GDO indicated resonance at 21.240. This at the feedpoint.

Feedpoint impedance as measured with a Millen Antenna Bridge was abt. 60 ohms, at 21.240 Mhz.

I then raised the loop to its final operating position, which now has the feedpoint at about 16 feet above earth.

The GDO now shows resonance at 21.235 Mhz, and feed impedance as abt 42 ohms.

So in this case, raising the loop approx 13 feet caused the resonant freq to INCREASE by .095 Mhz, and the feed impedance to DECREASE by abt. 18 ohms.

I am pretty sure this was "normal" behavior, and was within expectations.

However, I wonder.......is it safe to make a "rule of thumb" from this?

As an HF antenna is raised above earth, will its resonant freq ALWAYS increase?

Will its feedpoint impedance ALWAYS decrease?

Lee Carkenord KA0FPJ

2799. Re: Mounting whip antenna on truck for mobile HF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 13:36:38 UTC
From: oceanview2002@earthlink.net
Message-ID: <999cf256.0211200536.12158112@posting.google.com>
Source record: 131038

I tried the AH4 and found it to be horrible. Trying to get a random length whip to be effective using a so called antenna tuner just did not work. Antenna tuners don't tune antennas. Whatever you choose, go with a resonant antenna. I've used some of the other motorized antennas. Two brands just fell apart.

I now use the High Sierra HS1800DX. Those guys have mounts that you can use in the bed of the truck or put into your 2x2 receiver. Very professional looking antenna. They're not made in a garage. Performance with that type of antenna is very, very good. They also have lots of colors for the antenna. It's a first class system.

2800. Re: Mounting whip antenna on truck for mobile HF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 13:50:05 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDB930D.D9187C2C@ieee.org>
Source record: 131039

Gus wrote:
> I now use the High Sierra HS1800DX. Those guys have mounts that you
> can use in the bed of the truck or put into your 2x2 receiver. Very
> professional looking antenna. They're not made in a garage.
> Performance with that type of antenna is very, very good. They also
> have lots of colors for the antenna.

High Sierra said I was the first ham ever to ask for one in black leather.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2801. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 14:01:56 UTC
From: richardharrison@webtv.net
Message-ID: <11509-3DDB95D4-4@storefull-2316.public.lawson.webtv.net>
Source record: 131040

Roger Halstead wrote:
"Since that time, I`ve only lost one Poly-Phaser---."

My company had hundreds of radios around the world. Many had antennas at the highest points and often took direct lightning hits.

Our practice at VHF was to use folded monopoles solidly bolted to the tower top. If we couldn`t use a grounded antenna, we shunted the antenna with a short-circuit 1/4-wave stub at the antenna feedpoint.

We never had lightninng punctured Heliax nor r-f feedline blown transistors in the radios. We never used gas tubes or any other arrester on antennas or feedlines. Gas tubes were obviously superfluous for r-f circuit protection with our grounded antenna systems.

Heliax is a common-mode choke (inside) and a powerful impedance to the a-c component of lightning. D-C was shorted at the tower-top.

AM Broadcast stations in the medium-wave band, I`ve worked in, all had arc sensor/killers on the transmission lines. Coax lines were d-c isolated so that a relay d-c supply saw the space between coax conductors as an open circuit in its relay power supply. Any arc across the coax completed the relay power supply circuit, actuating the relay and momentarily killing the transmitter so it could not keep the arc alive. This is unnecessary with 2-way radios as the carrier is going to drop anyway.

MW broadcast stations have arc gaps across tower base insulators which never fire. The Faraday shield in the dog house takes the lightning hits.

Shortwave broadcast stations have arc gaps across the antenna feedlines at the plant entrance. These fire about as often as their medium-wave equivalents. Open-wire lines think they are common-mode chokes too.

I`ve used many gas tubes to tame surges on control, power, audio, phone, and data lines, but at r-f, other than radar, they are mostly superfluous.

Best regards, Richard Harrison, KB5WZI

2802. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 14:43:36 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0211200643.df515@posting.google.com>
Source record: 131041

> > ...should look into any of the installer programs having a free
> > version available for non-profit sites. They offer an alternative
> > to huge readmefirst files.
>
> Windows XP (Win2000, others ?) includes a free hidden IExpress program that
> can be used to prepare an installation package.
>
> C:\WINDOWS\system32\iexpress.exe
> (you can make it into a shortcut)
>
> One good explanation:
> http://www.calwell.ca/articles/a0022.php

Sorry to hear about the problems.

I tried overhere to install on drive D:\.

I would very much like to know what problems you got, because I
succeeded in this without any problems...

If you would let me know about the problems I can see what to do about
them, and, if appropriate, avoid these problemns in future releases.

Concerning the installer, maybe you are right. I once tried the
default microsoft installer, but using this required too much effort,
which I could better use in improving the software.

Furthermore to avoid that the installer changes a number of
uncontrolable and unreversable system settings/files, or replaces any
undesirable files I decided to do it the 'manual' way. (and it's
always nice to know what you are doing even when you don't understand
exactly...)

This way it's also possible to keep the zip file for the standard
version below 1.44 Mb so it fit's on a single floppy for all those
without the latest hardware and/or internet connections.

Arie.

p.s. thanks for your suggestion, I'll take a look.

2803. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 15:16:27 UTC
From: Dan Richardson <k6mhe@mendolink.com>
Message-ID: <7p9ntu8bnbc3i975mrr6thm92b07077ndt@4ax.com>
Source record: 131042

On Wed, 20 Nov 2002 04:22:18 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

>On Tue, 19 Nov 2002 21:28:32 -0600, 'Doc <w5lz@cwis.net> wrote:
>
>>Arie,
>> I down loaded the program along with the suppliments
>>but couldn't get it to work (Windows XP). Kept getting
>>errors, couldn't find the 'INI', run time errors, and
>>others. I may try again later...
>> 'Doc
>
>Arie,
>
>Pretty much same problem with Win2K. I solved most by reading the ini
>files, but it came down to the support files needing to be in a system
>directory in C: drive - my system files are NOT on drive C: and the
>matter of drive seems to be hardwired into the program.
>
>You should look into any of the installer programs having a free
>version available for non-profit sites. They offer an alternative to
>huge readmefirst files.
>
>73's
>Richard Clark, KB7QHC

It ran fine for me. Did you guys read the documentation?

Danny, K6MHE

2804. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 15:49:30 UTC
From: Robert Spooner <rls19@psu.edu>
Message-ID: <3DDBAF0A.2010301@psu.edu>
Source record: 131043

I would vote for the Larsen 5/8-wave antenna as well. It also works as
a 1/4-wave on 6 meters.

73,
Bob AD3K

--
Robert L. Spooner
Registered Professional Engineer
Associate Research Engineer
Intelligent Control Systems Department

Applied Research Laboratory Phone: (814) 863-4120
The Pennsylvania State University FAX: (814) 863-7841
P. O. Box 30
State College, PA 16804-0030 rls19@psu.edu

2805. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 16:27:57 UTC
From: "R. Scott" <washingtonham@yahoo.com>
Message-ID: <3DDBB80D.E3915692@yahoo.com>
Source record: 131044

KC8PMX wrote:
>
> It definitely needs to be mag-mount. There are a variety of times where the

Suggestion then, the mag will Scratch paint, I found out too late, but
if you cut a piece of Felt and attach it, it will keep the mag from
scratching but still give you holding power.

Scotty N7HJ

2806. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 16:54:25 UTC
From: ccox@chopped-ham-filtre.uhc.com.invalid
Message-ID: <argeo1$gt1$1@gabriel.uhc.com>
Source record: 131045

KC8PMX <kc8pmx@nospamdiamondcs.net> wrote:
> the other response here. Both would need to be the best possible out there
> on the market.

Aha - I see that now you're changing your requirements. Originally you asked
for the antenna with the highest CLAIMED gain - not independently measured
actual gain...

--
Chris Cox, N0UK/G4JEC NIC Handle: CC345
UnitedHealthGroup, Inc., MN10-W116, UNIX Services & Consulting
6300 Olson Memorial Highway, Golden Valley, MN 55427
email: ccox@uhc.com (work) chrisc@chris.org (home)

2807. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 17:21:40 UTC
From: richardharrison@webtv.net
Message-ID: <21914-3DDBC4A4-6@storefull-2314.public.lawson.webtv.net>
Source record: 131047

Roy, W7EL wrote:
"Consequently, a vertical dipole is inherently more efficient than a low dipole when both are mounted over the same quality ground."

Antenna efficiency is as Roy said:
"---the fraction of the applied power that`s radiated."

Efficiency is usually the fraction the radiation resistance makes with the total of radiation and loss resistances.

Assuming equal heights for vertical and horizontal dipoles, seems to me the outlook for the horizontal is not that bad. An example where the vertical is twice as high as the horizontal is not all that bad for the horizontal. The vertical`s center is at the height of the horizontal.. See Fig 4A on page 3-5 of edition 19 of the ARRL Antenna Book. The solid line represents the horizontal dipole. The broken line represents the vertical dipole.

Advantage clearly belongs to the horizontal antenna, though this may be more effect than efficiency. It`s really effectiveness we need whatever the efficiency is.

Best regards, Richard Harrison, KB5WZI

2808. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 17:31:27 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <NcbbPe+KnZsSLgwTd8usFvyRaBWv@4ax.com>
Source record: 131046

ccox@chopped-ham-filtre.uhc.com.invalid wrote:

>KC8PMX <kc8pmx@nospamdiamondcs.net> wrote:
>> the other response here. Both would need to be the best possible out there
>> on the market.
>
>Aha - I see that now you're changing your requirements. Originally you asked
>for the antenna with the highest CLAIMED gain - not independently measured
>actual gain...

How much gain can one get, claimed or otherwise, from an omnidirectional whip?

What would be the difference, radiation-wise, from 1/4, 1/2 and 5/8-wave whips?

Bob
k5qwg

2809. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 17:51:53 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <ZYPC9.4446$OQ5.859566@news2.west.cox.net>
Source record: 131048

For antenna gain info -- see URL:
http://www.larsenantennas.com/technical/basics.html

Its a matter of angle of radiation that gives "gain"
As you go from 1/4 to 1/2 to 5/8 wave antennas -- the angle of radiation
goes down -- thus gain.

See Auto and antenna illustration at the above URL.

For gain specs -- see URL:
http://www.progressive-concepts.com/36.html

1/4 wave -- unity
5/8 --- 3.4 dBi

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"Bob Miller" <bxmillerSpamNot@texas.net> wrote in message
news:NcbbPe+KnZsSLgwTd8usFvyRaBWv@4ax.com...
> ccox@chopped-ham-filtre.uhc.com.invalid wrote:
>
> >KC8PMX <kc8pmx@nospamdiamondcs.net> wrote:
> >> the other response here. Both would need to be the best possible out
there
> >> on the market.
> >
> >Aha - I see that now you're changing your requirements. Originally you
asked
> >for the antenna with the highest CLAIMED gain - not independently
measured
> >actual gain...
>
> How much gain can one get, claimed or otherwise, from an omnidirectional
whip?
>
> What would be the difference, radiation-wise, from 1/4, 1/2 and 5/8-wave
whips?
>
> Bob
> k5qwg
>

2810. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 18:01:40 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <pqintu0o1lp7u21aqncaep7ialokkcvs5t@4ax.com>
Source record: 131049

On 20 Nov 2002 06:43:36 -0800, 4nec2@gmx.net wrote:

>I tried overhere to install on drive D:\.
>
>I would very much like to know what problems you got, because I
>succeeded in this without any problems...
>

Hi Arie,

Is your system on drive D:? I doubt it.

The simple solution is to remove all "C:" references from the hard code. This is poor practice when providing a simple root symbol "\" would allow more flexibility. Using the simple root symbol is poor practice too, compared to storing paths in an ini file (obviously, you only do some of them and THAT is the problem).

>Concerning the installer, maybe you are right. I once tried the
>default microsoft installer, but using this required too much effort,
>which I could better use in improving the software.
>
This only means you have passed this"too much effort" onto your user. In this day and age this is evidence of not ready for prime time, especially since free installers have been around for at least 5 years. That is one reason why I turned to coding in Java where the application is not dependant on peppering the hard drive with a handful of separate files.

>This way it's also possible to keep the zip file for the standard
>version below 1.44 Mb so it fit's on a single floppy for all those
>without the latest hardware and/or internet connections.

New systems are on the shelves WITHOUT floppy drives and software delivery is either Web based or CDROM based.

73's
Richard Clark, KB7QHC

2811. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 18:10:14 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ckjntuk6hn44l4pcetlk9v3afmciba0i1q@4ax.com>
Source record: 131050

On Wed, 20 Nov 2002 07:16:27 -0800, Dan Richardson
<k6mhe@mendolink.com> wrote:

>On Wed, 20 Nov 2002 04:22:18 GMT, Richard Clark <kb7qhc@attbi.com>

>> I solved most by reading the ini
...
>> [installers] offer an alternative to huge readmefirst files.

>>73's
>>Richard Clark, KB7QHC
>
>It ran fine for me. Did you guys read the documentation?
>
>Danny, K6MHE
>

Hi Danny,

Confusing text has been removed from my quote above to allow you to
observe your answer.

If you read the complaint:
> my system files are NOT on drive C:
You will observe that this is NOT covered in the readmefirst.txt file
because there are so many possible problems in a real world it is
impossible to anticipate them all in a text file. Further, this
complaint reveals a common problem of hardwiring presumed paths into
code for which there is no solution to be found in any readme or ini
file.

73's
Richard Clark, KB7QHC

2812. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 18:20:25 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <n5kntuklp4hvn7idohfs5j3ubmqcd3dtae@4ax.com>
Source record: 131051

On Wed, 20 Nov 2002 11:41:54 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>Nobody says there's no such things as reflections. It is WHAT is reflected
>where the differences lie.

Ah Punchinello!

Speaking of wool...

Could you name another reflection that does not return power? You
have made a rather meaningless statement without numbers. Ever feel
the cool reflection of the sun from a shaving mirror? How about the
resounding crash of a wave against a bulkhead - think all that
returning water entered another dimension? Then perhaps your buddy
Lord Kelvinator pre-empted Sir Fig Newton's laws of motion?

Your questions still have all the romance of a civil service exam.
You probably can come up with some old wive's tale to match can't you?
I am sorry to say it would be hard pressed to match some of our civil
servants best efforts (after-all, with a single party hammerlock on
every house of government, our servants have yet to figure out a way
to pass a budget - much less a balanced one).

73's
Richard Clark, KB7QHC

2813. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 18:24:26 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <upkntusqo3o8951lil6ja3i9b9vuutevk7@4ax.com>
Source record: 131052

On Wed, 20 Nov 2002 08:01:56 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>but at r-f, other than radar, they are mostly
>superfluous.
>
>Best regards, Richard Harrison, KB5WZI

Hi All,

This is because those tubes are working (TR/ATR) tubes used to switch paths and isolate system components and are held partially ionized to speed up the switching action.

73's
Richard Clark, KB7QHC

2814. Re: resonance & impedance vs heighth?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 18:42:45 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DDBD7A5.D630F748@cwis.net>
Source record: 131053

Lee,
I think your 'rule of thumb' is okay as far as
it goes, but needs to be taken at least one step
more.
Frequency does tend to rise as the antenna is
raised, and the input impedance does tend to lower.
But, there are limits. The resonant frequency doesn't
raise 'for ever', and the input impedance will tend to
'cycle', go down for a while then reverse and go up
again. That 'cycle' is sort of like a damped wave.
Big variations to start with, that dwindle to a steady
value.
Like any generalization, it's never always 'right',
just like any 'rule of thumb'...
'Doc

2815. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 18:51:51 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DDBD9C7.56BD744C@cwis.net>
Source record: 131054

Arie,
I'm an 'appliance operator'! (LOL) No, I didn't
read the doc files for installation. I'll do that,
but it's going to take some time. (It isn't a reflection
on your program at all, there are just other things that
have a higher priority at the moment. Like getting a
clevis pin out of a brake pedal that some genius welded
in place.) But it's definitely on the 'list'. Thanks
for the concern...
'Doc

2816. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 18:51:58 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <rllntuok0a3kup3tbk486du91bkjf7bq48@4ax.com>
Source record: 131055

On Tue, 19 Nov 2002 09:00:14 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Roy Lewallen, W7EL wrote:
>"The claim that there`s significant loss in the ground near a vertical
>dipole keeps reappearing. Yet modeling shows very little energy lost to
>ground from a vertical dipole."
>
>If the ground were a total loss, it would be as if it did not exist and
>energy contacting the earth would not be reflected to help or hurt
>transmission in a desired direction, perhaps.
>
>Modeling is a wonderful tool but the product depends not only on the
>tool but on how the tool is used.
>
>Roy also wrote:
>"---Average Gain represents the near field loss. In modeling tests I`ve
>run, it`s been less than 1 dB."
>
snip
>
>Looking at Fig 16, the difference between perfect earth patterns and
>real earth patterns is considerable, though due largely to loss beyond
>the radials, perhaps.
>
>Also see Fig 16 for the ground-plane at various elevations over perfect
>earth and over real earth. Close to the earth, the four radials are not
>effective in catching all the displacement current,
>
bottom tip of 20M vertical dipole 10cM above 3 average grounds, one
ground includes a 1M grid ground mat of 10M radius:
Mat/Hi-Accuracy Hi-Accuracy MININEC
95.08 - J 15.57 93.16 - J 24.68 97.53 - J 16.09
0.91dBi @ 30ï¿½ 0.02dBi @20ï¿½ -0.13dBi @ 20ï¿½
0.29dBi @ 15ï¿½ -0.26dBi @ 15ï¿½ -0.4dBi @ 15ï¿½

PERFECT GROUND
97.53 - J 16.09
6.66dBi @ 0ï¿½
5.56dBi @ 15ï¿½

>At 15 degrees, there is a 6 db difference caused by earth loss when the
>antenna is 1/8-wavelength high,
>
bottom tip of 20M vertical dipole 5M above 3 average grounds, one

ground includes a 1M grid ground mat of 10M radius:
Mat/Hi-Accuracy Hi-Accuracy MININEC
76.96 - J 6.256 64.7 - J 34.52 63.77 - J 35.78
2.09dBi @ 125ï¿½ 0.87dBi @ 15ï¿½ 0.93dBi @ 15ï¿½
0.98dBi @ 15ï¿½ 0.87dBi @ 15ï¿½ 0.93dBi @ 15ï¿½

PERFECT GROUND
63.77 - J 35.78
8.35dBi @ 0ï¿½
4.97dBi @ 15ï¿½

>but at 1.5-wavelength elevation, the radials become much more effective and the
>difference in field strengths caused by poor earth is much less pronounced.
>
bottom tip of 20M vertical dipole 30M above 3 average grounds, one
ground includes a 1M grid ground mat of 10M radius:
Mat/Hi-Accuracy Hi-Accuracy MININEC
81.21 - J 9.122 67.99 - J 34.06 68.01 - J 33.98
4.32dBi @ 10ï¿½ 3.58 @ 10ï¿½ 3.58 @ 10ï¿½
2.92dBi @ 15ï¿½ 2.36 @ 15ï¿½ 2.36 @15ï¿½

PERFECT GROUND
68.01 - J 33.98
8.08dBi @ 0ï¿½
6.79dBi @ 15ï¿½

>and almost no difference when the
>antenna is 1.5-wavelength high.

My ground mat hides at least 0.5dBi gain loss due to the earth it
covers. This may hardly swing the meter; but given the dBi spread
across all the reported numbers above, 4.72dBi, it is significant.

>This difference must be caused by the
>earth directly beneath the antenna.
>
>Best regards, Richard Harrison, KB5WZI
>

Hi Richard,

The difference must be caused by earth, certainly, but this does not
isolate it to loss.

73's
Richard Clark, KB7QHC

2817. Re: resonance & impedance vs heighth?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 18:55:33 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <vlmntu0i2id1budga7o897srbk46cqqle6@4ax.com>
Source record: 131056

On 20 Nov 2002 05:09:29 -0800, carkenord@juno.com (Lee Carkenord)
wrote:

>
>As an HF antenna is raised above earth, will its resonant freq ALWAYS
>increase?
>
>Will its feedpoint impedance ALWAYS decrease?
>
> Lee Carkenord KA0FPJ

Hi Lee,

Consult my results for the thread "vertical antenna question."

73's
Richard Clark, KB7QHC

2818. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 19:00:50 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDBDBE2.F43BFC29@ieee.org>
Source record: 131057

Reg Edwards wrote:
> > But, but, but, Tom, what about the gurus who say there's no such
> > thing as reflections? :-)
>
> Cecil, there you go again, mis-quoting folks!

Reg, when there is a smiley face attached, it is humor, not
"mis-quoting", i.e. it is merely a play on words.

> Nobody says there's no such things as reflections. It is WHAT is reflected
> where the differences lie.

Well, maybe you can help us out here. Can you give us an example of an
EM reflection that doesn't contain energy intrinsic to the EM fields?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2819. Re: Toroids?<Richard>

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 19:21:00 UTC
From: jackinariz@webtv.net
Message-ID: <16719-3DDBE09C-53@storefull-2134.public.lawson.webtv.net>
Source record: 131058

Thank you Richard.....Yes I am going to try it..I have "stiff"
Beltran,(about ½" co-ax),RG8, so I can make only about two
loops...Hope it works.

2820. Re: LEGAL CABLE DESCRAMBLER mmmm

> > > without reading this report first.
> > >
> > > Frequently Asked Questions--CABLE TV DESCRAMBLER
> > >
> > > Q: Will the d.e.s.c.r.a.m.b.l.e.r work on Fiber, TCI,
> > > Jarrod and satellite systems?
> > > A: The answer is YES. In respect to satellite,
> > > you just get more stuff! There is one exception:
> > > The descrambler will not work with DSS satellite.
> > >
> > > Q: Do I need a converter box?
> > > A: This plan works with or without a converter box.
> > > Specific instructions are included in the plans for each!
> > > Q: Can the cable company detect that I have the descrambler?
> > >
> > > A: No, the signal descrambles right at the box and does
> > > not move back through the line!
> > >
> > > Q: Do I have to alter my existing c-a-b-l-e system,
> > > television or VCR?
> > > A: The answer is no!
> > >
> > > Q: Does this work with my remote control?
> > > A: The answer is yes. The descrambler is
> > > manually controlled--but very easy to use!
> > >
> > > Q: Can you email me the plans?
> > > A: No the program comes with an easy to follow picture guide.
> > >
> > > Q: Does this work everywhere across the country?
> > > A: Yes, everywhere in the USA plus England,
> > > Brazil, Canada and other countries!
> > >
> > > Q: Is this deal guaranteed?
> > > A: Yes, if you are unhappy for any reason we will refund your money.
> > >
> > > Q: When I order, when will I get my package?
> > > A: We mail out all orders within 24 hours of receiving them.
> > >
> > > Q: How much does it cost to get the instruction
> > > plans, the easy to follow diagram, and most
> > > important of all the "Using a D-e-s-c-r-a-m-b-l-e-r LEGALLY Report".
> > > A: You get the complete 6 page report and instruction package all for
> > just--$10.00
> > >
> > > Q: How do I order?
> > > A: Fill out form below and send it, along
> > > with your $10.00 payment to:
> > >
> > > SMG PUBLISHING INC

> > > 1340 East Vine Str #218
> > > Kissimmee Fl 34744
> > >
> > > (Cash, Check or Money Order.)
> > >
> > > (Florida residents include 7% Florida State Sales Tax)
> > >
> > > (All orders outside the U.S.A. add $5.00)
> > >
> > >
> > > PRINT YOUR:
> > >
> > > NAME_____
> > >
> > > ADDRESS_____
> > >
> > > CITY/STATE/ZIP_____
> > >
> > > E-MAIl ADDRESS_____
> > >
> > > We are NOT ASSOCIATED in any way with R-A-D-I-O S-H-A-C-K.
> > > Neither the design nor instructions were developed
> > > by, are sold by, or are endorsed by R-a-d-i-o S-h-a-c-k.
> > > Parts for this fine-tuning device are available
> > > at many electronics stores (including R-a-d-i-o S-h-a-c-k)
> > > This is not a R-a-d-i-o S-h-a-c-k product.
> > >
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> > >
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> > >
> > > ---
> > > Outgoing mail is certified Virus Free.
> > > Checked by AVG anti-virus system (http://www.grisoft.com).
> > > Version: 6.0.391 / Virus Database: 222 - Release Date: 9/19/02
> > >
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> > >

>
>

2821. Re: Where is a datasheet for 1N21E diode ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 20:49:39 UTC
From: u127@hotmail.com
Message-ID: <299f8ff8.0211201249.5fea7420@posting.google.com>
Source record: 131059

See link on

http://www.shfmicro.com/diode.htm

Jan

> I need a datasheet for this microwave diode, sylvania, 1N21E
> thanks

2822. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 21:13:38 UTC
From: ccox@chopped-ham-filtre.uhc.com.invalid
Message-ID: <argtu2$3so$1@gabriel.uhc.com>
Source record: 131061

Bob Miller <bxmillerSpamNot@texas.net> wrote:

> How much gain can one get, claimed or otherwise, from an omnidirectional whip?

> What would be the difference, radiation-wise, from 1/4, 1/2 and 5/8-wave whips?

Bob,

it was supposed to be very subtle irony. I agree, though, verticals are not high gain antennae, unless they are multiple wavelengths long, and the differences between one vertical and another will be cancelled out by some other positive or negative attribute.

--
Chris Cox, N0UK/G4JEC NIC Handle: CC345
UnitedHealthGroup, Inc., MN10-W116, UNIX Services & Consulting
6300 Olson Memorial Highway, Golden Valley, MN 55427
email: ccox@uhc.com (work) chrisc@chris.org (home)

2823. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 21:18:08 UTC
From: richardharrison@webtv.net
Message-ID: <29229-3DDBFC10-83@storefull-2318.public.lawson.webtv.net>
Source record: 131062

Richard Clark, KB7QHC wrote:
"This is because those tubes are working (TR/ATR) tubes used to switch paths and isolate system components and are held partially ionized to speed up the switching action."

Yes. That is necessary for fastest action. Without such a speed up, the pulse would be gone before the gas tube fired. The way gas tubes are used to protect sensitive low frequency circuits is to slow the transient with capacitance and inductance giving the gas tube time to fire. In r-f circuits that is rarely an option. Selectivity can be used to limit the energy spectrum from a surge that protected equipment is exposed to.

Semiconductors are a good protection possibility for r-f circuits. These may be combined with slower acting devices to take the stress off the semi before it is destroyed in some cases. In other cases it is hoped the sacrifice of the semi was not in vain and that the next strike comes after protection has been restored.

Most gas tube protectors are too slow for r-f even if they were needed, and most aren`t needed.

Best regards, Richard Harrison, KB5WZI

2824. Re: Where is a datasheet for 1N21E diode ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 21:50:18 UTC
From: richardharrison@webtv.net
Message-ID: <29229-3DDC039A-88@storefull-2318.public.lawson.webtv.net>
Source record: 131063

I last looked at a 1N21E data sheet about 40 years ago. I needed a quiet microwave mixer diode.

Jan already identified the SHF Microwave Parts Co. site.

My ECG book says their 1N416E is equivalent.

Best regards, Richard Harrison, KB5WZI

2825. Re: "Even Saddam Hussein gets Spam..."

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 22:15:59 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <rl2otusl926bu1jkni2f4nmi7fnphd8ajb@4ax.com>
Source record: 131064

On Tue, 19 Nov 2002 17:48:29 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

> a five
>time convicted felon is preparing a "computerized dossier on your
>private life

Was Poindexter *convicted* on any charges?

2826. FA: Mini-UHF connectors CHEAP!!! $8.00

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 22:16:07 UTC
From: US Patriot <nospam@tome.com>
Message-ID: <HQTC9.23988$hK4.2072295@bgtnsc05-news.ops.worldnet.att.net>
Source record: 131065
Cross-posted to: alt.ham-radio.vhf-uhf,rec.ham-radio.swap,rec.radio.amateur.antenna,rec.radio.swap

Great Deal, they go for about $3.00 a piece retail.
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=4672&item=801841232&rd=1

2827. Re: Grounding Concern, Comments.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 22:18:12 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211201418.21ec56ad@posting.google.com>
Source record: 131066

"R. Scott" <washingtonham@yahoo.com> wrote in message
news:<3DDA6139.265682E2@yahoo.com>...
> Ok, I moved out of the drafty narly room and finally was able to get
> one of the spare bedrooms after the kids are gone. In the drafty room I
> had a hole in the wall that went right out to a ground rod, total ground
> run of 4 feet to my bus bar that the rigs tied into. Its a single story
> house but the foundation is up a bit. The drafty room was a family room
> built via a wall in the garage (before I bought the house) so that room
> sat right on the slab.
>
> Now the new room is up a bit and I cannot drill a hole through that
> wall (wife forbades it). I was however able to find a run because the
> room abuts the bathroom and they cut a Gigantic hole for the tub drain
> and I was able to bring coax/rotor in that way. If I go under the house
> I might be able to drive a Ground rod under there, but the 00 cable
> would run about 8-10 feet, instead of the 4 as before.
>
> SO, options, as Ive RF floating around that I need to get rid of, Ive
> clean some up via grounding everything together?

I'm sure this will draw sparks, but it's my opinion that grounding to
cure RF in the shack problems is generally a waste of time. The real
problem is most likely your antenna and feedline setup. Either that,
or the antenna is right over your head...You mention coax and a rotor.
I assume you are running a beam of some type. I would double check the
connections, matching device, and feedline before bothering with a
ground. With an antenna like a yagi that is normally fairly well
decoupled , you should not need a ground connection to cure rf in the
shack. If you do, you have an antenna-feedline problem. All my yagi's
here are among the "coldest" antennas I run as far as RF in the shack,
and I use only simple gamma matches. My HF beam uses only a 1:1 coax
choke. I've never had rf problems with it, and haven't used a ground
at the rig so far. For some reason, the shield of your coax is hot
with common mode currents. That's what you "really" want to fix.
Improve the matching device, or add extra decoupling at the feedpoint.
IE: ferrite beads, etc. Adding ground rods is just a bandaid that
might or might not work. I battled rf problems for a long time when I
ran my old 730 and a henry console. The 730 is sensistive to rf
floating on the rig, feedlines if you use outboard mike preamps, etc.
Never once in all those cases was the problem the ground , or a lack
of one. Every single time, it was an antenna or feedline problem. Just
having rusty hardware at the feedpoint, baluns, etc, can cause this
problem for instance. Now, when I have or hear about rf problems,
grounding is the last thing I think about. I use no external "rf"

ground anymore, and haven't for quite a few years. And I actually have less problems than when I did. I've seen many cases where a ground to the rig makes things worse. MK

2828. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 22:29:04 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <p43otuol5ovtbnn6hrsqv8g10rj03cg3g3@4ax.com>
Source record: 131067

On Wed, 20 Nov 2002 15:18:08 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>
>Most gas tube protectors are too slow for r-f even if they were needed,
>and most aren`t needed.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard, All,

Gas tubes also have a considerable amount of wide band noise
following the event as the gas de-ionizes, which for radar systems
limits the detection of nearby targets (their being lost in an
elevated noise floor).

73's
Richard Clark, KB7QHC

2829. HELP - rebuilding old AEA FSTV 430-16 antenna. ?coax used in matching loop?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 22:29:19 UTC
From: VE3EIE John in Ottawa <ve3eie@rac.caNOSPAM>
Message-ID: <3DDC0CBD.1050602@rac.caNOSPAM>
Source record: 131068

Hello everyone,

I need your help as I am rebuilding an old AEA FSTV 430-16 antenna
that came down in an icestorm and the only thing left to know about
is its coax "matching loop." The bit of coax used at the feedpoint
is about 10 inches long and has CATV connectors on it. It's gone bad.
I don't have impedance measuring equipment for those frequencies.

Would anyone have information on the coax needed?

AEA was bought by Timewave so I've looked at their site already
and found nothing but did drop a line to their service department.

The only information that I have left on this antenna comes from
the end panel of the original shipping box and is as follows:

Advertising bits: "The antenna of choice for the ATVer.
Also great for DX-chasing at 432 MHz and
satellite Transmit/receive at 435.9 MHz."

Frequency: 420 to 440 MHz
Gain over dipole: 14.3 db
F/B ratio: 20 db
Beam width: E-28, H-32
VSWR: 1.3:1 or better
Power handling: 250 W.

Thanks for any assistance,
John

2830. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 22:34:59 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <xIGcnauVe_3BgUGgXTWcqA@ctc.net>
Source record: 130923

It is not used to overcome the farady rotation but for ham radio it is used because they spin to stabalize the position of the satellite. Comercial sats use left and right circular to pack more transponders on the sat in a given frequency range.
The odd and even chanels are reversed circular from each other. This gives an aditional 20 db or so adjacent chanel rejection.

> CP is not commonly used in terrestrial systems, although there are some
> specialized applications. It is exclusively used in satellite transmissions
> to overcome faraday rotation in the atmosphere.
>
> Steve VE9SRB

2831. Re: Toroids?<Richard>

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 22:38:11 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ve3otuorslfalt932h5vp1sii4vakjkrui@4ax.com>
Source record: 130919

On Wed, 20 Nov 2002 12:21:00 -0700 (MST), jackinariz@webtv.net (jack
D) wrote:

>Thank you Richard.....Yes I am going to try it..I have "stiff"
>Beltran,(about ï¿½" co-ax),RG8, so I can make only about two
>loops...Hope it works.

Hi Jack,

An alternative is to use a more flexible (smaller?) cable that is
short enough (connectored at both ends of course) to loop through
several more times (you gain with the square of the number of turns,
so this is payback big time if you can). Don't worry about cable loss
or connector loss unless you are pouring power to it and would risk an
arc-over due to smaller cable dimensions. Try this as a test, not a
permanent installation (unless it works really, really good).

Let us know either way.

73's
Richard Clark, KB7QHC

2832. Re: Where is the Best place for custom made QSL cards??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 22:39:20 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <8r3otu0qis4hh45n36j2vrmcecbs7gspsk@4ax.com>
Source record: 130920

On Wed, 20 Nov 2002 13:10:10 -0800, nospam <xxxmmxxx@xxxspiritone.com>
wrote:

>.

You are sitting in front of it right now.

73's
Richard Clark, KB7QHC

2833. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 23:04:56 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <syUC9.17275$vM1.1240461@bgtnsc04-news.ops.worldnet.att.net>
Source record: 130921

"J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote in message
news:Q1DC9.6271$kS3.725413@news20.bellglobal.com...
> "Roy Lewallen"
> > <trimmed>
> > Both antennas lose power from the radiated field as the
> > signals reflect from the ground at some distance from the
> > antenna. Particularly at low radiation angles, a vertical
> > typically loses a great deal more than a horizontal dipole
> > because of the different way that the vertically polarized
> > signal interacts with the ground. And the effect of the ground
> > is much more dependent on ground quality for vertically
> > polarized signals than for horizontally polarized signals.
> > <snip>
>
> I guess that circular polarization (CP) would have a loss halfway between
> vertical and horizontal (?). I notice that CP is often the 'forgotten
> cousin' of polarizations. Pet peeve of mine.
>

The loss between a circularly polarized wave and a linearly polarized wave
is a function of two things:

1) The axial ratio (AR) of the circularly polarized wave. (The ratio of the
vertical pol. component to the horizontal pol. component)

2) The polarization purity of the linearly polarized wave.

All things being perfect, AR=1 (0 dB), and the linear wave being purely
linear, there is a 3 dB mismatch loss between a circularly polarized wave
and the linearly polarized wave. As the AR varies,the loss may be less than
or greater then 3 dB as a function of the alignment between the two waves.

As Roy pointed out, a circularly polarized wave reflects off a lossy surface
with an elliptical polarization. For a perfectly conducting reflector, the
sense of circular polarization changes after reflection. I.e, a RHCP wave
becomes LHCP and a LHCP wave becomes RHCP.

CP is not commonly used in terrestrial systems, although there are some
specialized applications. It is exclusively used in satellite transmissions
to overcome faraday rotation in the atmosphere.

Steve VE9SRB

2834. 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 23:06:24 UTC
From: rettysnitch@ugerumf.com
Message-ID: <arrl.doesnt.care.anymore@all.com>
Source record: 130924
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Step 1: No more automatic renewals. Individuals must retest and
pass all elements required for their license class.

Step 2: The passing score for written exams needs to be raised to 90%.

Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.

Step 4: Make the no-code license one year non-renewable.

Step 5: Cancel your league membership until they decide to work
to improve things.

Step 6: Complain to the ARRL when-ever you hear an idiot on the air.

Step 7: Turn in rule breakers to the FCC.

73, de Wouff Hong

2835. Re: "Even Saddam Hussein gets Spam..."

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 23:08:35 UTC
From: dplatt@radagast.org
Message-ID: <uto5fjhe72dfce@corp.supernews.com>
Source record: 130922

In article <rl2otusl926bu1jkni2f4nmi7fnphd8ajb@4ax.com>,
W.G Ewald <wgewald@att.net> wrote:

>Was Poindexter *convicted* on any charges?

According to the reports I've read in the media and on the Web, Poindexter was in fact convicted in court on five charges (conspiracy, two counts of obstructing Congress, and two counts of making false statements) on April 7, 1990.

The convictions were later overturned on appeal. As I recall (and I may have the details wrong): Poindexter had been granted immunity from prosecution on the basis of his testimony when he was compelled to testify before Congress. This is a legal way of requiring someone to admit to actions which may be possibly criminal, as it removes the necessity for invoking the Fifth Amendment against self-incriminating testimony.

His trial was held (later) based on the testimony of people who had witnessed his actions and the events of the Iran-Contra scandal. It was on the basis of this testimony and related evidence that he was convicted.

The Appeals Court ruled that evidence introduced at the trial was "tainted" by the fact that the witnesses who testified against Poindexter had had, or might have had access to his testimony... and that this was a form of (indirectly) compelling him to testify against himself.

In effect, Poindexter was released on a legal technicality (the use of inadmissable evidence, due to a violation of his Constitutional right to not testify against himself). It's exactly the same technicality used to block the prosecution of suspects who made coerced confessions, or weren't read their Miranda rights before confessing, or who were questioned by police after insisting on the presence of a lawyer, or whose homes were searched on the basis of a search warrant gained by the police on false pretenses.

I gather that the prosecution chose not to attempt to re-try the case... presumably because they were unable to amass sufficiently-convincing testimony from those witnesses who could be shown _not_ to have read or heard Poindexter's testimony before Congress, either directly or indirectly.

The news archives I've read indicate that Poindexter and all of the other significant "players" in the Iran-Contra scandal were pardoned by President George E. Bush some time after this.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2836. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-20 23:59:40 UTC
From: k1bqt@aol.com
Message-ID: <20021120185940.07780.00006009@mb-mn.aol.com>
Source record: 130925

Kinda like insisting that everyone who is interested in learning to fly a plane should also know how to ride a horse, isn't it? What a goof!

Rick K1BQT

2837. Re: "Even Saddam Hussein gets Spam..."

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 00:01:01 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <134otucuaahirccurm8i31ovj0r0i0268a@4ax.com>
Source record: 130926

On Wed, 20 Nov 2002 22:15:59 GMT, W.G Ewald <wgewald@att.net> wrote:

>On Tue, 19 Nov 2002 17:48:29 GMT, Richard Clark <kb7qhc@attbi.com>
>wrote:
>
>> a five
>>time convicted felon is preparing a "computerized dossier on your
>>private life
>
>Was Poindexter *convicted* on any charges?
>

Hi Bill,

>On March 8th, 1990, Poindexter was brought to trial in Washington, D.C.,
>on five criminal charges, including conspiracy, obstruction of Congress,
>and making false statements to Congress. On April 7th, Poindexter was
>found guilty on all five charges, and he was sentenced, on June 11th ,
>to six months in prison. Poindexter appealed the conviction, and
>on November 15th, 1991, a federal appeals court panel reversed the conviction

Always nice to know people in the seat of government when you find
your ass in sling. The quote above comes from the horse's, uh, mouth:
http://www.hpoindexter.com/jmarlan.htm

This, in a way, reminds me of that sterling representative of the
Marine Corps, Ollie North one of the world's greatest under-achievers
who certainly had an exaggerated self opinion (now for sale to the
highest bidder). If the name seems familiar, he was the pot plant
sitting next to a lawyer during Iran-Contra investigations. Again,
with this ass in the sling, his friends (and they weren't to be found
at the base Officer's Club) bailed him out a la Cosa Nostra. If he
had gone to work across the Potomac, his ass would've been in a
tourniquet.

Something tells me neither of these patriots have the slightest
inkling about how to design an antenna capable of "igniting large
sections of the atmosphere" But just utter this phrase within 1000
feet of Congress and you will undoubtedly be stormed by 500 odd
wannabee patriots throwing money at you. And failing that, apply for
a Government Grant to build them for Saddam. The money should be
flowing freely soon and no one seems to care where your business goes.
It would be no harder than selling and shipping missiles to Khomeiny
(I a tol' ya!).

The irony of this "igniting large sections of the atmosphere" is found in this is technology we developed following the first failed attempt to take out Saddam. HAARP was thought to be capable of "igniting large sections of the atmosphere." The research folks in our armed forces shushed us with calming tones about investigating the magnetic lines and their effect on solar radiation (not just sunshine). It was speculated that if they could modulate those lines (through sheer brute force power) they could also modulate the natural background radiation levels. If they could do that, they could also measure that modulation and correlate it into geophysical structures - something like a CATSCAN for the earth. This lead to further discussion as to how this CATSCAN could reveal subterranean bunkers on the other side of the globe. Does anyone really believe we smashed the tunnels of Afghanistan simply by waiting until someone stood in front of them waving a flag?

The folks that get things done are wearing a uniform. However, this is not to be considered for too long or too deeply by the Right Whiners. To their standards of citizenship, service in uniform during time of war is NOT patriotic enough. In today's news (Curt Anderson, AP) comes reports of how retired WW2 and Korean Veterans have been denied their life-long medical care, because "it wasn't put in writing." The judge that upheld the Defense Department position stated (with crocodile tears) he "can do no more than hope Congress will make good on the promises made in good faith." Well, after seven years you might think so - - - if you had ever worn a uniform that is.

73's
Richard Clark, KB7QHC

2838. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 00:05:53 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <arh811$850$1@knossos.btinternet.com>
Source record: 130927

> > Cecil, there you go again, mis-quoting folks!
==========
> Reg, when there is a smiley face attached, it is humor
==========
You may not have noticed but I also ended with a smiley.
==========
> > Nobody says there's no such things as reflections. It is WHAT is
reflected
> > where the differences lie.
==========
> Well, maybe you can help us out here. Can you give us an example of an
> EM reflection that doesn't contain energy intrinsic to the EM fields?
==========
Cec, you are still craftily trying to infer or attribute to me something
which I have not said. You can't help it. It's in your genes.

I'm sorry I am unable to help you out there (in the plural). You out there
(in the plural) are beyond hope. Specially the ones who understand nothing
except about Italian clowns. But don't lose any sleep about it. Your ability
to work DX without an expensive tuner will remain entirely unaffected.

;o) ;o) ;o) ;o) ;o) ;o) ;o) ;o) ;o) ;o) ;o) ;o) ;o) ;o) ;o) ;o)
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;o) ;o)
;o) ;o) ;o)

Regards, Reg. Hic!

2839. Re: resonance & impedance vs heighth?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 00:05:56 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <arh812$850$2@knossos.btinternet.com>
Source record: 130928

It is inadvisable to trust resonant frequency measurements made at the feedpoint by a GDO. An article in a magazine, even if approved by the technical editor, would be shot to ribbons.

It is far, far more reliable to use one of these new-fangled, hand-held antenna analysers and look for minimum input resistance associated with zero input reactance. And even then it could only be guaranteed to be in the right HF band.

The affect of height above ground on the resonant frequency of vertical loop antrennas is very small until the bottom of the antenna is only a foot or so above the ground. It depends on soil resistivity and permittivity and on the size of the loop.

When soil resistivity is very low, at very low heights, compared with the natural resonant frequency, the resonant frequency may increase. But when the soil is poor and has a high resistance, the resonant frequency may decrease with decreasing height.

Since what happens is within the near field of the loop anttenna it can be modelled as two coupled circuits. The coupling between antenna and ground is of two types - inductive (transformer) and capacitive. For an HF antenna the whole thing is frequency dependent between LF and VHF. Measurements at one frequency are meaningless.

In the presence of other more serious abberations of which you may be unaware the relatively small change in resonant frequency with changes in height of the whole antenna are inconsequential. No conclusions or 'rules of thumb' can be drawn from them.

On the other hand, as someone else has pointed out, the decrease in resistance with increasing height is what is normally experienced. As the antenna nears the ground larger currents are induced in the soil and soil loss increases. So the measured input resistance increases. In fact the loss in radiating efficiency due to ground proximity can be accurately estimated very simply from the high and low input resistance measurements.

Some idea of the magnitude of the effects can be gained from program MAGLOOP4 down-loadable in a few seconds, run immediately, from website below. The primary purpose of the program is to aid antenna design and construction but the change in resonant frequency versus very low height is illustrated by the change in tuning capacitor setting needed to maintain a constant resonant frequency.

The program makes no pretence of being accurate in those particular effects. But from crude measurements made in my own back yard, with the local guessed-at low soil resistivity, at 1.9 MHz the program's results are in the

right ball park. No great importance should be attached to them. For example it would be a complete waste of time trying to predict soil resistivity from the change in resonant frequency as a loop antenna nears the ground, checked by GDO or not. There are much better ways of doing it. ;o) (Note smiley).

Play with MAGLOOP4 It is usable up to loop perimeters of 1/2 wavelength.
--
==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

"Lee Carkenord" wrote -.
> I built a one wavelength "rectangular" loop antenna with a design
> freq of 21.235 Mhz. This loop is to be used in a vertical
> position......IOW.....the 4-sided rectangular loop will "stand up".
>
> As constructed, the feedpoint was 3 FEET above earth. When in this
> location, my Millen GDO indicated resonance at 21.240. This at the
> feedpoint.
>
> Feedpoint impedance as measured with a Millen Antenna Bridge was abt.
> 60 ohms, at 21.240 Mhz.
>
> I then raised the loop to its final operating position, which now has
> the feedpoint at about 16 feet above earth.
>
> The GDO now shows resonance at 21.235 Mhz, and feed impedance as abt
> 42 ohms.
>
> So in this case, raising the loop approx 13 feet caused the resonant
> freq to INCREASE by .095 Mhz, and the feed impedance to DECREASE by
> abt. 18 ohms.
>
> I am pretty sure this was "normal" behavior, and was within
> expectations.
>
> However, I wonder.......is it safe to make a "rule of thumb" from
> this?
>
> As an HF antenna is raised above earth, will its resonant freq ALWAYS
> increase?
>
> Will its feedpoint impedance ALWAYS decrease?
>
> Lee Carkenord KA0FPJ

2840. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 00:16:47 UTC
From: Randy <rchapman8@houston.rr.com>
Message-ID: <PBVC9.11377$Gc.230389@twister.austin.rr.com>
Source record: 130929
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

<Moparholic@hotmailnospam.com> wrote in message
news:20021120184902.729$84@newsreader.com...
> rettysnitch@ugerumf.com (Wouff Hong) wrote:
> > Step 1: No more automatic renewals. Individuals must retest and
> > pass all elements required for their license class.
> >
> > Step 2: The passing score for written exams needs to be raised to 90%.
> >
> > Step 3: Code elements should be 13 wpm for General, and 20 wpm for
Extra.
> >
> > Step 4: Make the no-code license one year non-renewable.
> >
> > Step 5: Cancel your league membership until they decide to work
> > to improve things.
> >
> > Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
> >
> > Step 7: Turn in rule breakers to the FCC.
> >
> Step 8: don't cross post stink bait to 5 groups.

Step 9: Ban morons like Wouff Hong from Usenet access.

2841. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 00:18:54 UTC
From: Ron Hardin <rhhardin@mindspring.com>
Message-ID: <3DDC266E.31CA@mindspring.com>
Source record: 130930
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Wouff Hong wrote:
>
> Step 1: No more automatic renewals. Individuals must retest and
> pass all elements required for their license class.

Whoa, I've been renewing since I was 12.
--
Ron Hardin
rhhardin@mindspring.com

On the internet, nobody knows you're a jerk.

2842. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 00:21:47 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <oGVC9.7443$7X4.895726@news20.bellglobal.com>
Source record: 130932

"VE9SRB"
> CP is not commonly used in terrestrial systems, although
> there are some specialized applications. It is <*(almost)*>
> exclusively used in satellite transmissions to overcome
> faraday rotation in the atmosphere.

Yes, I'm soaking in it (CP). Lots of fancy antenna modelling SW tools that
do not (easily) handle "CP". Pet peeve. Sigh...

Certain (rare) radar applications use CP with appropriate feeds (two).

Other systems use CP/EP when they can't predict the orientation of the
receive antenna (some commercial FM broadcasters ?, others ?).

DirecTV (and so on) is probably the #1 application right now. GPS #2 ?

J. Harvey
Society for the Promotion of CP-capable Antenna analysis tools (SPCA)
Ottawa

2843. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 00:27:32 UTC
From: K&#65533;HB <KAYZEROHANDSOMEBOY@ELECTRICSMOKE.NET>
Message-ID: <ULVC9.1275$It3.99745@newsread2.prod.itd.earthlink.net>
Source record: 130931
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Wouff Hong" <rettysnitch@ugerumf.com> wrote

: Step 1: No more automatic renewals. Individuals must retest and
: pass all elements required for their license class.
:
: Step 2: The passing score for written exams needs to be raised to 90%.
:
: Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.
:

....CLIP......

0 2 4 6 8 10
/
/
/
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/
/
/
/
TROLL-O-METER

2844. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 00:31:50 UTC
From: "B.Hitt" <tiny@bubbles.com>
Message-ID: <3DDC2976.A186B0F7@bubbles.com>
Source record: 130933
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Kï¿½HB" wrote:
>
> ....CLIP......
>
> 0 2 4 6 8 10
> /
> /
> /
> /
> /
> /
> /
> /
> TROLL-O-METER

Shit, my needle broke off and is still spinning...

2845. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 00:57:31 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DDC2F7B.BD59B63F@netscape.net>
Source record: 130934
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Kï¿½HB" wrote:

> :
>
> ....CLIP......
>
> 0 2 4 6 8 10
> /
> /
> /
> /
> /
> /
> /
> /
> TROLL-O-METER

In our case:

1 3 5 7 9 +20 +40 +60
/
/
/
/
/
/
/
/
TROLL-O-METER

2846. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 01:37:11 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <FTjcPVQ+XwUaKWEZFBQMTM73xYaT@4ax.com>
Source record: 130935

ccox@chopped-ham-filtre.uhc.com.invalid wrote:

>Bob Miller <bxmillerSpamNot@texas.net> wrote:
>
>> How much gain can one get, claimed or otherwise, from an omnidirectional whip?
>
>> What would be the difference, radiation-wise, from 1/4, 1/2 and 5/8-wave whips?
>
>Bob,
>
>it was supposed to be very subtle irony. I agree, though, verticals are not
>high gain antennae, unless they are multiple wavelengths long, and the
>differences between one vertical and another will be cancelled out by some
>other positive or negative attribute.

Thanks, I was also trying to be subtly ironic in my questioning -- ironies passing in the ether...

Anyways, the other answer was helpful, if differing lengths of monopolonic metal radiate with lower and lower take-off angles...

Bob
k5qwg

2847. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 01:47:17 UTC
From: Jim Hampton <aa2qa@frontiernet.net>
Message-ID: <utoepbfdclu6bb@corp.supernews.com>
Source record: 130936
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Hans has his meter protected with an input resistor and a couple of schottky diodes across it. You need about 600 volts into it to register 10 over.
;-)

73 from Rochester, NY
Jim

"B.Hitt" <tiny@bubbles.com> wrote in message
news:3DDC2976.A186B0F7@bubbles.com...
>
>
> "K&#65533;HB" wrote:
> >
> > ....CLIP.....
> >
> > 0 2 4 6 8 10
> > /
> > /
> > /
> > /
> > /
> > /
> > /
> > /
> > TROLL-O-METER
>
>
>
>
> Shit, my needle broke off and is still spinning...

2848. Re: resonance & impedance vs heighth?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 01:50:38 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <li6dnUaMTK8QpkGgXTWcrg@comcast.com>
Source record: 130937

Lee,

I knew there was a graph of impedance vs height in the ARRL haandbook. Unfortunately, nothing is simple. However, for a horizontal dipole, the impedance at 0.2 wavelength is about 65 ohms, at 0.35 it is 95 ohms, at 0.6 it's 55 ohms, and at 0.85 it's 85 ohms. Now what happens below 0.2 depends on whether you have poor ground, or perfect ground. With perfect ground, at 0 height the impedance is 0. With poor ground, the impedance at 0 height is 90 ohms.

I don't think resonance changes with height once the capacitance to ground becomes small.

BTW. You might try feeding one of the bottom corners, with the center conductor of the coax going to the vertical wire, and the shield to the horizontal.

Tam/WB2TT.
"Lee Carkenord" <carkenord@juno.com> wrote in message
news:4346b55e.0211200509.3f3392db@posting.google.com...
> I built a one wavelength "rectangular" loop antenna with a design
> freq of 21.235 Mhz. This loop is to be used in a vertical
> position......IOW.....the 4-sided rectangular loop will "stand up".
>
> As constructed, the feedpoint was 3 FEET above earth. When in this
> location, my Millen GDO indicated resonance at 21.240. This at the
> feedpoint.
>
> Feedpoint impedance as measured with a Millen Antenna Bridge was abt.
> 60 ohms, at 21.240 Mhz.
>
> I then raised the loop to its final operating position, which now has
> the feedpoint at about 16 feet above earth.
>
> The GDO now shows resonance at 21.235 Mhz, and feed impedance as abt
> 42 ohms.
>
> So in this case, raising the loop approx 13 feet caused the resonant
> freq to INCREASE by .095 Mhz, and the feed impedance to DECREASE by
> abt. 18 ohms.
>
> I am pretty sure this was "normal" behavior, and was within
> expectations.
>
> However, I wonder.......is it safe to make a "rule of thumb" from

> this?
>
> As an HF antenna is raised above earth, will its resonant freq ALWAYS
> increase?
>
> Will its feedpoint impedance ALWAYS decrease?
>
> Lee Carkenord KA0FPJ

2849. skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 02:21:54 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <3DDC4333.6020001@adelphia.net>
Source record: 130938

In prepping my magloop for service, I was planning on running some steel wool over the loop, then painting it to seal it.

This got me to thinking. If the surface is tarnished, will this really make for a higher resistance due to skin effect, or will (what I really think happens) does the current just run a tad deeper? I could experiment, but that might take a while.

Secondly, if I were to attach the contacts to the antenna on the inside of the tube, would the skin effect cause the outer portions of the tube to contain the signal, as all the signal skins to the inside?

I hope these questions do not brand me as hopelessly dense.

Mike KB3EIA -

2850. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 03:05:48 UTC
From: Charles R Fregeau <n5hsr@sprynet.com>
Message-ID: <arhiia$1sh$1@slb0.atl.mindspring.net>
Source record: 130939
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Wouff Hong" <rettysnitch@ugerumf.com> wrote in message
news:arrl.doesnt.care.anymore@all.com...
> Step 1: No more automatic renewals. Individuals must retest and
> pass all elements required for their license class.
>
> Step 2: The passing score for written exams needs to be raised to 90%.
>
> Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
> Step 4: Make the no-code license one year non-renewable.
>
> Step 5: Cancel your league membership until they decide to work
> to improve things.
>
> Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
>
> Step 7: Turn in rule breakers to the FCC.
>
>
> 73, de Wouff Hong

Much as I dislike some of the current state of things in amateur radio, we live in the 2000's not the 1950's. We have to deal with the current reality, bad as it might be. Returning to 1952 is not going to cure the problem. We need to pull together as hams and do things without bugging the FCC for everything. We used to do that.

Charles
N5HSR, Extra

2851. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 03:12:13 UTC
From: Brian Denley <bdenley@attbi.com>
Message-ID: <haYC9.96167$QZ.14825@sccrnsc02>
Source record: 130940
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Why not just drop the archaic code requirement, beef up the theory
requirements and get hundreds of new, excited members tomorrow? That'll be
the biggest shot in the arm the hobby has seen in decades.

--
Brian Denley
http://home.attbi.com/~bdenley/index.html

"Wouff Hong" <rettysnitch@ugerumf.com> wrote in message
news:arrl.doesnt.care.anymore@all.com...
> Step 1: No more automatic renewals. Individuals must retest and
> pass all elements required for their license class.
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> Step 5: Cancel your league membership until they decide to work
> to improve things.
>
> Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
>
> Step 7: Turn in rule breakers to the FCC.
>
>
> 73, de Wouff Hong

2852. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 03:38:38 UTC
From: scott <acepilot@bloomer.net>
Message-ID: <3DDC553E.E2539B3C@bloomer.net>
Source record: 130941

God, don't even suggest that! I fly and I don't like horses.

Scott
N0EDV

Rick Littlefield wrote:

> Kinda like insisting that everyone who is interested in learning to fly a plane
> should also know how to ride a horse, isn't it? What a goof!
>
> Rick K1BQT

--

Scott
http://corbenflyer.tripod.com
http://groups.yahoo.com/group/ParasolAirplanes
Building RV-4
Gotta Fly or Gonna Die!

2853. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 03:40:16 UTC
From: scott <acepilot@bloomer.net>
Message-ID: <3DDC55A0.235DDCC4@bloomer.net>
Source record: 130942
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Yes, especially with a name like Wouff Hong! QST showed a picture of
Wouff Hong years ago. Looked like a stick to beat up trolls with.

Scott
N0EDV

Scott wrote:

> "Kï¿½HB" wrote:
>
> > :
> >
> > ....CLIP......
> >
> > 0 2 4 6 8 10
> > /
> > /
> > /
> > /
> > /
> > /
> > /
> > /
> > TROLL-O-METER
>
> In our case:
>
> 1 3 5 7 9 +20 +40 +60
> /
> /
> /
> /
> /
> /
> /
> /
> TROLL-O-METER

--

Scott
http://corbenflyer.tripod.com
http://groups.yahoo.com/group/ParasolAirplanes
Building RV-4
Gotta Fly or Gonna Die!

2854. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 04:34:35 UTC
From: plampione@yahoo.com
Message-ID: <b30faff8.0211202034.1cf442eb@posting.google.com>
Source record: 130943
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

I would suggest somethig rather different.

Take out the code requirement, and put in the test some DSP questions
(how to make filters, equalize volume, remove noise, and modulate in
phase, frequency, quadrature, etc) as well as more advanced circuit
design.

The code requirement is just silly.
Code is just one of the many ways to encode a signal, a way that
happens to be possible to do by hand. But why bother with it?
That it is useful in emergencies is a ridiculous thing - if your
transceiver works, you might as well talk into it, so also general
SWL, and not only hams, can understand your transmission.
Instead, with the increased ease with which signals are digitized,
DSP should really be required knowledge.
I mean, it takes so little nowadays to feed the signal into an audio
board
or better A/D converter, and then start doing things digitally...

In fact, consider this: DSP should be required because, in case of
emergency, you hook up your PC/laptop audio board to the radio, and
there you go,
modulating any way you want...

Code is what keeps me getting a ham licence.
I just don't suffer fools gladly, and the code requirement is foolish.
If I want to waste time, there are many more pleasant ways to do it.

Cheers!

Peter

Oh and one more thing: I think it is incredibly funny that in a
country where you can get a driver's licence without knowing how to
operate a stick shift, you cannot operate ham without knowing code.

There, now flame me.

rettysnitch@ugerumf.com (Wouff Hong) wrote in message
news:<arrl.doesnt.care.anymore@all.com>...
> Step 1: No more automatic renewals. Individuals must retest and
> pass all elements required for their license class.
>
> Step 2: The passing score for written exams needs to be raised to 90%.
>
> Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.

>
> Step 4: Make the no-code license one year non-renewable.
>
> Step 5: Cancel your league membership until they decide to work
> to improve things.
>
> Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
>
> Step 7: Turn in rule breakers to the FCC.
>
>
> 73, de Wouff Hong

2855. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 04:40:22 UTC
From: K&#65533;HB <KAYZEROHANDSOMEBOY@ELECTRICSMOKE.NET>
Message-ID: <WsZC9.1700$It3.141898@newsread2.prod.itd.earthlink.net>
Source record: 130944
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Brian Denley" <bdenley@attbi.com> wrote

: Why not just drop the archaic code requirement, beef up the theory
: requirements and get hundreds of new, excited members tomorrow? That'll
be
: the biggest shot in the arm the hobby has seen in decades.

You're wrong, of course. If you look at amateur radio from the view of a non-involved historian, the only regulatory change which had a significant statistical impact was the advent of the Novice license back in the early 50's. As originally envisioned and structured, Novice was an incredible smart regulatory move, perhaps the last smart thing the FCC did for the health of the Amateur Radio service.

Other than that, changes in licensing requirements have served only to generate sales of ink, to excite the excitable minority, and to give the Unabashers another reason to cancel their ARRL membership or to buy a life membership. No other impact is evident, and won't be after this current curve in the regulatory road. Hams will still be hams, and the excitable minority will get excited all over again. In about 2012 we'll be awaiting the next "restructuring" plan. Yawn.

73, Hans, K0HB

2856. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 04:56:47 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <gapotu8v4k45lqtkf46rnuj98trj5s9m0o@4ax.com>
Source record: 130945

On Thu, 21 Nov 2002 02:21:54 GMT, Mike Coslo <mcoslo@adelphia.net>
wrote:

>In prepping my magloop for service, I was planning on running some steel
>wool over the loop, then painting it to seal it.
>
>This got me to thinking. If the surface is tarnished, will this really
>make for a higher resistance due to skin effect, or will (what I really
>think happens) does the current just run a tad deeper? I could
>experiment, but that might take a while.
>
>Secondly, if I were to attach the contacts to the antenna on the inside
>of the tube, would the skin effect cause the outer portions of the tube
>to contain the signal, as all the signal skins to the inside?
>
> I hope these questions do not brand me as hopelessly dense.
>
> Mike KB3EIA -

Hi Mike,

Your natural sense is already leading you in the right direction. The
tarnish only exists as a problem when it comes to a point of contact
with another conductor (next section of the loop presumably, or the
cap).

Secondly, attaching to the interior means the RF path will simply flow
along the inner surface to follow your cable back outside through that
puncture in the RF shield (how the cable got inside in the first
place) and complete its business in the usual fashion. However, as
the currents are huge, why would you add non-inductive length?

73's
Richard Clark, KB7QHC

2857. HALO ANTENNA FOR TWENTY METERS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 05:00:13 UTC
From: Chris Muir <cbmuir@xtra.co.nz>
Message-ID: <tLZC9.10089$8o1.1570926@news.xtra.co.nz>
Source record: 130946

I am trying to finalise dimensions and matching for a full size 20 meter horizontal dipole bent around to form a compact square antenna rather like a VHF Halo.

Modelling with EZNEC Demo suggests a fairly omnidirectional horizontal pattern and little reduction in performance compared with a regular dipole. However the feedpoint impedance does drop significantly - to about 9 ohms or so. I have changed element to a two-wire folded dipole and this brings the impedance up somewhat to about 30 ohms.

My question is whether shorts placed across the folded elements at some point in from each "end" will increase the normal 4:1 transformation ratio to give me a near 50 ohm match? How does one caculate where these shorts should be? I dont think I want to go to a three wire folded dipole!

Chris ZL1BOE

2858. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 05:00:39 UTC
From: N8KDV <n8kdv@iserv.net>
Message-ID: <3DDC6876.D4B96733@iserv.net>
Source record: 130947
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

Typical comments by someone who is simply to lazy to learn. We've heard it all before.

Peter Lampione wrote:

> I would suggest somethig rather different.
>
> Take out the code requirement, and put in the test some DSP questions
> (how to make filters, equalize volume, remove noise, and modulate in
> phase, frequency, quadrature, etc) as well as more advanced circuit
> design.
>
> The code requirement is just silly.
> Code is just one of the many ways to encode a signal, a way that
> happens to be possible to do by hand. But why bother with it?
> That it is useful in emergencies is a ridiculous thing - if your
> transceiver works, you might as well talk into it, so also general
> SWL, and not only hams, can understand your transmission.
> Instead, with the increased ease with which signals are digitized,
> DSP should really be required knowledge.
> I mean, it takes so little nowadays to feed the signal into an audio
> board
> or better A/D converter, and then start doing things digitally...
>
> In fact, consider this: DSP should be required because, in case of
> emergency, you hook up your PC/laptop audio board to the radio, and
> there you go,
> modulating any way you want...
>
> Code is what keeps me getting a ham licence.
> I just don't suffer fools gladly, and the code requirement is foolish.
> If I want to waste time, there are many more pleasant ways to do it.
>
> Cheers!
>
> Peter
>
> Oh and one more thing: I think it is incredibly funny that in a
> country where you can get a driver's licence without knowing how to
> operate a stick shift, you cannot operate ham without knowing code.
>
> There, now flame me.
>
> rettysnitch@ugerumf.com (Wouff Hong) wrote in message
news:<arrl.doesnt.care.anymore@all.com>...

> > Step 1: No more automatic renewals. Individuals must retest and
> > pass all elements required for their license class.
> >
> > Step 2: The passing score for written exams needs to be raised to 90%.
> >
> > Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.
> >
> > Step 4: Make the no-code license one year non-renewable.
> >
> > Step 5: Cancel your league membership until they decide to work
> > to improve things.
> >
> > Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
> >
> > Step 7: Turn in rule breakers to the FCC.
> >
> >
> > 73, de Wouff Hong

2859. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 05:22:54 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <utordf8p7hmh94@corp.supernews.com>
Source record: 130949
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Ban everyone who is not 100 percent in accordance with your views . Who the heck would you then post with?

Get real, everyone is entitled to their opinion.

Some where between you and him is probably a reasonable solution. I have noted that of those who got a ticket with little work, many are not renewing. A thing only has value when we have to work for it, unfortunately the ticket no longer requires much effort and has no real value to the recipient.

Still stuck in my mind is sweating before a steely eyed FCC examiner, drawing schematics, sending, and receiving code. Did I enjoy the process? Nope! but I did enjoy being able to count myself among a group of fellow hams that had gone through the "baptism of fire".

I don't care a wit that some folks have 5wpm licenses, You have yours and I have mine. I feel mine is worth more, but that is my opinion. Your mileage may vary...

Allow others to have their opinion, and now that the horse is dead you may cease the use of the whip.

73 Fred W4JLE (ex V3CB, V31GR, KB4NGB, KJ4JE)
Enjoying ham radio since 1955

"Randy" <rchapman8@houston.rr.com> wrote in message
news:PBVC9.11377$Gc.230389@twister.austin.rr.com...
>
>> Step 9: Ban morons like Wouff Hong from Usenet access.
>
>

2860. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 05:28:39 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <utorhtc4aefpf0@corp.supernews.com>
Source record: 130950
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Peter Lampione wrote:
> I would suggest somethig rather different.
>
> Take out the code requirement, and put in the test some DSP questions
> (how to make filters, equalize volume, remove noise, and modulate in
> phase, frequency, quadrature, etc) as well as more advanced circuit
> design.
>
> The code requirement is just silly.
> Code is just one of the many ways to encode a signal,
snip

> I mean, it takes so little nowadays to feed the signal into an audio
> board
> or better A/D converter, and then start doing things digitally...
>
> In fact, consider this: DSP should be required because, in case of
> emergency, you hook up your PC/laptop audio board to the radio, and
> there you go,
> modulating any way you want...
>
> Code is what keeps me getting a ham licence.
> I just don't suffer fools gladly, and the code requirement is foolish.
> If I want to waste time, there are many more pleasant ways to do it.
>
> Cheers!
>
> Peter

IMHO,
Requiring A/D knowledge is equally as silly as requiring knowing code.
A compromise test of all the various technologies is clearly the logical
way to approach licensing/testing and they attempt to do this to some
degree. But technology is changing rapidly and the wheels turn slowly.
I think we are at a point where a ham should know what A/D means even
if its only picking out the correct words on a multiple choice test.
But hmmm, isn't that basically what the code test is?

Ranting off from a recent thread on r.r.a.a. one would get the
impression that knowing the brand names and specs of current products
(the Hamstick thing) is more important in making a 'good' ham.

The League is pretty much in control of testing and licensing these days
and I'm of the crowd that thinks they are doing everything bass-ackwards

and ultimately alienating radio folks (both new and old) from their organization in favor of whiz-kid technology. I don't desire things to stay quagmired in the 1950's but I don't see the need to overwhelm the bulk of the ham community with articles that are better suited for an IEEE publication. If, back in the 50s, they published *ONLY* SSB stuff, the rank and file membership would have tossed in the ARRL towel...much like the situation we see today. QST is the League for most people and basically it (they) have become nothing more than another modern electronics magazine publisher, not a mouthpiece for amateur radio as a hobby for all age groups.
(Apologies to the CBers and SWLs that I'm cross-posting to)
-Bill WX4A

2861. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 05:32:27 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <utorvc8qashpff@corp.supernews.com>
Source record: 130951
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Great gobs of bovine excrement, the license is simply insufficient
motivation for you to learn code. The "suffer fools" nonsense serves only to
cover up your lack of motivation. Learning anything is simply one more
exercise in broading one's life experiences.

"Peter Lampione" <plampione@yahoo.com> wrote in message ...
> ------------ SNIP ------------
> Code is what keeps me getting a ham licence.
> I just don't suffer fools gladly, and the code requirement is foolish.
> If I want to waste time, there are many more pleasant ways to do it.
>
> Cheers!
>
> Peter
>
>

2862. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 05:36:45 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-277C47.21370720112002@newssvr21-ext.news.prodigy.com>
Source record: 130952
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

In article <WsZC9.1700$lt3.141898@newsread2.prod.itd.earthlink.net>,
"K�HB" <KAYZEROHANDSOMEBOY@ELECTRICSMOKE.NET> wrote:

> >"Brian Denley" <bdenley@attbi.com> wrote
> >
> > Why not just drop the archaic code requirement, beef up the theory
> > requirements and get hundreds of new, excited members tomorrow?
> > That'll be the biggest shot in the arm the hobby has seen in decades.
>
> You're wrong, of course.

<snip>

We now interrupt this boring thread where ham's bicker yet again about
licensing for a bit of light entertainment.

Community Service

One day a florist goes to a barber for a haircut. After the cut he
asks the barber about his bill. "I am sorry, I cannot accept money
from you I am doing community service this week." The florist is
pleased and leaves the shop.

The next morning when the barber goes to open his shop; there is a
thank you card and a dozen roses waiting at his door.

Later a cop comes in for a haircut and he also goes to pay the
barber, and the barber replies: "I am sorry I cannot accept
money from you. I am doing community service this week." The
cop is happy and leaves the shop.

The next morning the barber goes to open his shop; there is a thank
you card and a dozen donuts waiting at his door.

A Democrat comes for a haircut and when he asks the barber what
he owes, the barber replies: "I am sorry I cannot accept money
from you. I am doing, community service this week." The Democrat
is very happy and leaves.

The next morning when the barber goes to open his shop, a dozen
Democrats are lined up waiting for a free haircut.

--
Telamon�

2863. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 05:43:13 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <3DDC7271.2000509@core.com>
Source record: 130953

Actually private pilots have to requalify every two years. Air transport
Pilots (Airline, etc) have to requalify every six months. I am not sure
about commercial pilots.

Dave WD9BDZ

Rick Littlefield wrote:

>Kinda like insisting that everyone who is interested in learning to fly a plane
>should also know how to ride a horse, isn't it? What a goof!
>
>Rick K1BQT
>
>

2864. Re: 7 steps to improve politics

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 05:46:52 UTC
From: K&#65533;HB <KAYZEROHANDSOMEBOY@ELECTRICSMOKE.NET>
Message-ID: <gr_C9.1807$It3.153363@newsread2.prod.itd.earthlink.net>
Source record: 130954
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Telamon" <telamon_spamshield@pacbell.net.is.invalid> wrote

:
: The next morning when the barber goes to open his shop, a dozen
: Democrats are lined up waiting for a free haircut.
:

A first grade teacher proudly proclaimed to her class one day that she was a liberal Democrat. She asked her students to raise their hands if they were liberal Democrats as well. Not really knowing what a liberal Democrat was, but wanting to be like their teacher, most of their hands flew up into the air. There was, however, one exception. A girl named Lucy had not gone along with the crowd. The teacher asked her why she had decided to be different.

"Because I'm not a liberal Democrat" she replied. ''Then, what are you?'' asked the teacher,

"Why, I'm a proud conservative Republican," boasted the little girl. The teacher, a little perturbed, asked Lucy why she was a conservative Republican.

"Well", she said, "I was brought up to trust in myself instead of relying on an intrusive government to care for me and do all of my thinking. My Dad and Mom taught me these things, and they are both conservative Republicans, and so now I am a conservative Republican too." The teacher, now a little embarrassed and maybe even just a bit angry, said, "That's no reason! What if your Mom was a moron, and your dad was an idiot. What would you be then?" The teacher paused, a bit smug, certain that she'd put the girl in her place, and slowly let a sly smirk creep across her face.

"Well, if that were the case", said Lucy after a moments thought,"then, I suppose I'd be a liberal Democrat."

73, de Hans, K0HB

2865. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 05:56:30 UTC
From: "D. Stussy" <kd6lvw@bde-arc.ampr.org>
Message-ID: <Pine.LNX.4.44.0211210556190.14064-100000@exp.bde-arc.ampr.org>
Source record: 130955
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

On Wed, 20 Nov 2002, Ron Hardin wrote:
>Wouff Hong wrote:
>>
>> Step 1: No more automatic renewals. Individuals must retest and
>> pass all elements required for their license class.
>
>Whoa, I've been renewing since I was 12.
>--
>Ron Hardin
>rhhardin@mindspring.com
>
>On the internet, nobody knows you're a jerk.

...That is, until you post! :-)

2866. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 06:15:57 UTC
From: w8crz <kc8ssg@yahoo.com>
Message-ID: <xS_C9.439$L3.2847@news>
Source record: 130948

I use a Iron Horse 5/8 wave magmount. It has served me well.

--
Rob W8CRZ

2867. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 06:29:41 UTC
From: lc <larryc@northwest.com>
Message-ID: <3DDC7D55.1FCB7575@northwest.com>
Source record: 130956

stacked collinear dipoles.

2868. Re: "Even Saddam Hussein gets Spam..."

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 07:28:44 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ari1vc$6cb$0@208.206.142.73>
Source record: 130957

Richard Clark wrote:
>

> Something tells me neither of these patriots have the slightest
> inkling about how to design an antenna capable of "igniting large
> sections of the atmosphere" But just utter this phrase within 1000
> feet of Congress and you will undoubtedly be stormed by 500 odd
> wannabee patriots throwing money at you. And failing that, apply for
> a Government Grant to build them for Saddam.

Hmmm, ever consider that maybe this is one more way of relieving Saddam of some of his stash? We've heard the tales about Russian mafia selling him several loads of phony uranium for millions. So sell him an atmosphere igniter!

2869. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 07:29:41 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0211202329.2d9ec780@posting.google.com>
Source record: 130958
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Seven nice steps to DESTROY and KILL ham radio. Only several fanatics would stay. How would you like to be re-tested for your driving license every year ? Or to be subject to regular tests from the law codex under the penalty of losing your citizenship ? BTW, do you have a written permission to use the "trademarks" Wouff-Hong, Rettysnitch and Uggerumph ?

God save the hamradio !
OK1SIP

2870. Re: vertical antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 07:42:23 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <yp0ajaDf5I39EAhS@ifwtech.co.uk>
Source record: 130960

Ralph Mowery wrote:
>It is not used to overcome the farady rotation but for ham radio it is used
>because they spin to stabalize the position of the satellite.

CP is used for both purposes. If the satellite wasn't spinning, you would find - as moonbouncers do - that CP is still necessary, to overcome Faraday rotation of the plane of polarization as the signal passes outward and inward through the ionosphere.

(CP is not used for moonbounce on the 'yagi bands', 432MHz and below, but that is for other engineering and historical reasons.)

>> CP is not commonly used in terrestrial systems, although there are some
>> specialized applications. It is exclusively used in satellite
>transmissions
>> to overcome faraday rotation in the atmosphere.
>>
>> Steve VE9SRB

CP is extensively used for FM broadcast (in Britain for sure, and probably elsewhere) in order to minimize cross-polarization dropouts, especially to mobile and portable receiving antennas. These antennas are likely to be using slant linear polarizations, and also the most likely to receive signals via reflections that change the transmitted plane of polarization. CP always suffers some loss when received by linear-polarized antennas, but it's never totally 'wrong', as linear-to-linear can sometimes be.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

2871. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 08:27:27 UTC
From: W6DKN <w6dkn-nospam-@qsl.net>
Message-ID: <QG0D9.2146$EY.2069@fe01>
Source record: 130959
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Brian Denley" <bdenley@attbi.com> wrote in message
news:haYC9.96167$QZ.14825@sccrnsc02...
> Why not just drop the archaic code requirement, beef up the theory
> requirements and get hundreds of new, excited members tomorrow? That'll
be
> the biggest shot in the arm the hobby has seen in decades.
>
> --
> Brian Denley

I might agree if the theory questions were "fill-in-the-blank" and
"draw-the-schematic", rather than multiple choice - where the answer is
right in front of you. This would help ensure that the person has some
actual knowledge rather than just having memorized a few answers from a
test prep book.

In reality, your proposal would not attract any significant quantity of new
hams because it would make the test harder than it is now. In today's
"instant gratification" mindset world, many people want every thing "now"
and don't want to expend any personal effort to get it. That's why the code
element is constantly being complained about by so many...

73 de W6DKN

2872. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 09:05:14 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0211210105.2b05e2a0@posting.google.com>
Source record: 130961

Richard Clark <kb7qhc@attbi.com> wrote in message
news:<pqintu0o1lp7u21aqncaep7ialokkcvs5t@4ax.com>...
> On 20 Nov 2002 06:43:36 -0800, 4nec2@gmx.net wrote:
>
> Is your system on drive D:? I doubt it.

No, and you are right, I did not consider this possibility.

> The simple solution is to remove all "C:" references from the hard
> code.

I'll check this once more, but (from my memory) I can not remember
having any references to C:\

> This only means you have passed this"too much effort" onto your user.
> In this day and age this is evidence of not ready for prime time,
> especially since free installers have been around for at least 5
> years.

I tried the IEXPRESS.EXE But this does not seem to work on W-95 and/or
W-me (on which I created my 4nec2). If you have any other free, and
EASY to use, installer references, I would very much like to know.

> New systems are on the shelves WITHOUT floppy drives and software
> delivery is either Web based or CDROM based.

One of my targets with 4nec2 is to keep the package/executable as
small as possible, to allow it to run also on not so state-of-the-art
systems.

That's also why it's free, to support those who don't have lot's of
money to spend on modern computer systems or the latest commercial
modelling packages.

Thanks, for the feedback,
Arie.

2873. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 11:11:40 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3ddcbfc0$0$181$ba620e4c@news.skynet.be>
Source record: 130963
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

```
| In today's
| "instant gratification" mindset world, many people want every thing "now"
| and don't want to expend any personal effort to get it. That's why the
code
| element is constantly being complained about by so many...

We have the same on this side of the pond. How to avoid that radioamateurism
becomes CB with 100 watts?

73 de ON5MJ - Jacques
```

2874. Compact Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 11:37:36 UTC
From: Schwalenstocker <henryjs@northnet.org>
Message-ID: <3DDCC580.4080200@northnet.org>
Source record: 130964

I am looking for a compact, light beam antenna for the HF bands, 20 thru
10 meters.
Am undecided between the Butternut Butterfly and the T.G.M. MQ-1.
I would like to hear any comments from users of either of these or any
suggestions.
Hank, W2RXL

2875. Compact Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 11:45:18 UTC
From: Schwalenstocker <w2rxl@arrl.net>
Message-ID: <3DDCC74E.5090507@arrl.net>
Source record: 130965

I am looking for a compact, light beam antenna for the HF
bands, 20 thru
10 meters.
Am undecided between the Butternut Butterfly and the T.G.M.
MQ-1.
I would like to hear any comments from users of either of
these or any
suggestions.
Hank, W2RXL

2876. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 11:47:11 UTC
From: amfowler@melbpc.org.au
Message-ID: <3dddc352.6770560@news.melbpc.org.au>
Source record: 130962

Mike Coslo <mcoslo@adelphia.net> wrote:

>In prepping my magloop for service, I was planning on running some steel
>wool over the loop, then painting it to seal it.
>
>This got me to thinking. If the surface is tarnished, will this really
>make for a higher resistance due to skin effect, or will (what I really
>think happens) does the current just run a tad deeper? I could
>experiment, but that might take a while.

The current will take the path of lowest impedance,
i.e. it will concentrate on the outer surface of the
conductor. If the "tarnish" is a lossy conductor it will
absorb a little energy, so clean the loop with steel wool
until it gleams, remove any trace of oil with methylated
spirits, dry with a CLEAN cloth, and immediately spray with
INCRALAC - This is a lacquer developed to prevent brass and
copper from tarnishing. I first read this tip years ago in
one of the MIT Radiation Lab series that were published not
long after World War 2 to "reveal" the secret materials,
components, systems, etc developed during the war.

MIT found that this gave the highest Q factor for
cavity resonators - far higher than using silver plating.
>
>Secondly, if I were to attach the contacts to the antenna on the inside
>of the tube, would the skin effect cause the outer portions of the tube
>to contain the signal, as all the signal skins to the inside?

Doesn't matter where you make the connection, the
current will head for the lowest impedance path (the outer
(Conducting) surface as fast and directly as it can.
>
> I hope these questions do not brand me as hopelessly dense.

Not at all. You are only dense if you fail to ask
the questions.

I've been asking questions for about 70 years now,
and am still learning something new. My approach is
basically "If it works, find out how, if it doesn't, find
out why."
Alan.
>
> Mike KB3EIA -

2877. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 12:01:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utpipddjra2ve3@corp.supernews.com>
Source record: 130966

Alan Fowler wrote:
> . . .
> Doesn't matter where you make the connection, the
> current will head for the lowest impedance path (the outer
> (Conducting) surface as fast and directly as it can.
>. . .

If the connection is to the inner surface, the shortest path to the outer surface is along the inside to the nearest opening, then out. This might be a short path or it might be long. If the path is long, it'll add substantial inductance and, in the case of a small loop, unnecessary loss.

Roy Lewallen, W7EL

2878. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 13:03:03 UTC
From: Larry Bratcher <lbratche@swbell.net>
Message-ID: <bQ4D9.334$9S3.311643194@newssvr11.news.prodigy.com>
Source record: 130969
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Sure think...the hobby is declining now so let's make it that much harder to
bring people into it.

What an Idiot!

"Wouff Hong" <rettysnitch@ugerumf.com> wrote in message
news:arrl.doesnt.care.anymore@all.com...
> Step 1: No more automatic renewals. Individuals must retest and
> pass all elements required for their license class.
>
> Step 2: The passing score for written exams needs to be raised to 90%.
>
> Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
> Step 4: Make the no-code license one year non-renewable.
>
> Step 5: Cancel your league membership until they decide to work
> to improve things.
>
> Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
>
> Step 7: Turn in rule breakers to the FCC.
>
>
> 73, de Wouff Hong

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.419 / Virus Database: 235 - Release Date: 11/14/2002

2879. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 13:12:56 UTC
From: N2EY@AOL.COM
Message-ID: <c2356669.0211210512.180146a6@posting.google.com>
Source record: 130967
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

rettysnitch@ugerumf.com (Wouff Hong) wrote in message
news:<arrl.doesnt.care.anymore@all.com>...

> Step 1: No more automatic renewals. Individuals must retest and
> pass all elements required for their license class.

No problem! btw, are YOU volunteering to be part of the VE system that
would have to administer an additional ~70,000 exams-for-renewal per
year? Or is this a "let someone else do the work" idea?
>
> Step 2: The passing score for written exams needs to be raised to 90%.

Again, no problem. But how are you going to convince FCC?
>
> Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.

Again, no problem. But how are you going to convince FCC? What new
argument will change their minds after they have been gradually
phasing out code testing for the past 20 years?
>
> Step 4: Make the no-code license one year non-renewable.

Why? And are YOU volunteering to be part of the VE system that would
have to administer the tens of thousands of additional upgrade exams
per year? Or is this a "let someone else do the work" idea?

> Step 5: Cancel your league membership until they decide to work
> to improve things.

Did you read the ARRL's proposal and comments on restructuring? What
should ARRL be doing that they are not doing now?
>
> Step 6: Complain to the ARRL when-ever you hear an idiot on the air.

Why? Enforcement is FCC's job.
>
> Step 7: Turn in rule breakers to the FCC.

How many tapes have you sent to Riley?

Heck, this isn't even a new list! Just a rehash of one from May of
2000. The Troll-O-Meter judges unanimously disqualify it from
consideration due to its nonoriginal content.

73 de Jim, N2EY

2880. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 13:14:51 UTC
From: "B.Hitt" <tiny@bubbles.com>
Message-ID: <3DDCDC4B.10B01D6C@bubbles.com>
Source record: 130968
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

OK1SIP wrote:
>
> How would you like to be re-tested for your driving
> license every year ?

Sounds like a great idea. Get the old people off the road.

2881. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 14:47:08 UTC
From: paulfriedman@attbi.com
Message-ID: <MI6D9.91851$NH2.6246@sccrnsc01>
Source record: 130970
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Jim:

Not to complain <grin>, but you skipped my favorite part.

In Step 5 you are supposed to cancel your ARRL membership. Then, in Step 6 you are supposed to complain to the organization from which you just resigned and in which you now have no standing. I think we need a step 8: LCT at 2IAO (Logical Consistency Test at 2 Ideas at Once level.)

73

Paul ab0si

"N2EY" <N2EY@AOL.COM> wrote in message news:c2356669.0211210512.180146a6@posting.google.com...
> rettysnitch@ugerumf.com (Wouff Hong) wrote in message news:<arrl.doesnt.care.anymore@all.com>...
>
> > Step 1: No more automatic renewals. Individuals must retest and
> > pass all elements required for their license class.
>
> No problem! btw, are YOU volunteering to be part of the VE system that
> would have to administer an additional ~70,000 exams-for-renewal per
> year? Or is this a "let someone else do the work" idea?
> >
> > Step 2: The passing score for written exams needs to be raised to 90%.
>
> Again, no problem. But how are you going to convince FCC?
> >
> > Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
> Again, no problem. But how are you going to convince FCC? What new
> argument will change their minds after they have been gradually
> phasing out code testing for the past 20 years?
> >
> > Step 4: Make the no-code license one year non-renewable.
>
> Why? And are YOU volunteering to be part of the VE system that would
> have to administer the tens of thousands of additional upgrade exams
> per year? Or is this a "let someone else do the work" idea?
>
> > Step 5: Cancel your league membership until they decide to work
> > to improve things.
>

> Did you read the ARRL's proposal and comments on restructuring? What
> should ARRL be doing that they are not doing now?
> >
> > Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
>
> Why? Enforcement is FCC's job.
> >
> > Step 7: Turn in rule breakers to the FCC.
>
> How many tapes have you sent to Riley?
>
> Heck, this isn't even a new list! Just a rehash of one from May of
> 2000. The Troll-O-Meter judges unanimously disqualify it from
> consideration due to its nonoriginal content.
>
> 73 de Jim, N2EY

2882. Re: HALO ANTENNA FOR TWENTY METERS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 14:50:35 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <arirsb$p4i@r02n01.cac.psu.edu>
Source record: 130971

Hi Chris:

Years ago, if my memory is correct, Cushcraft made a halo antenna for 20m as well as the higher bands. You could make "Christmas tree" of them from 20m to 2m. Anyway Cushcraft and most others who make halo antennas use a gamma match on them just for the reason you have found. I don't know of any of them that are direct feed.
You could also try a hairpin match, or a delta match, but both of them will require a balun as they are balanced matching systems. The gamma match is an unbalanced feed system and doesn't need a balun and you could go back to a single wire design.

--
John Passaneau
Penn State University, State College Pa.
W3JXP
w3jxp@arrl.net

"Chris Muir" <cbmuir@xtra.co.nz> wrote in message
news:tLZC9.10089$8o1.1570926@news.xtra.co.nz...
> I am trying to finalise dimensions and matching for a full size 20 meter
> horizontal dipole bent around to form a compact square antenna rather like
a
> VHF Halo.
>
> Modelling with EZNEC Demo suggests a fairly omnidirectional horizontal
> pattern and little reduction in performance compared with a regular
dipole.
> However the feedpoint impedance does drop significantly - to about 9 ohms
or
> so. I have changed element to a two-wire folded dipole and this brings
the
> impedance up somewhat to about 30 ohms.
>
> My question is whether shorts placed across the folded elements at some
> point in from each "end" will increase the normal 4:1 transformation ratio
> to give me a near 50 ohm match? How does one caculate where these shorts
> should be? I dont think I want to go to a three wire folded dipole!
>
> Chris ZL1BOE
>
>

2883. Re: Compact Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 14:52:43 UTC
From: G&R <spam@limbo.hell>
Message-ID: <Vq6D9.8509$7X4.1020309@news20.bellglobal.com>
Source record: 130972

Another antenna that you may wish to consider is the antenna by Degen Designs called the Baby Boomer Quad.

Take a look at www.degendesigns.com and if you have any questions, please contact me at info@degendesigns.com, I'd be more than willing to answer any questions you may have.

73 de VE3CVS

Guenther
info@degendesigns.com

"Schwalenstocker" <w2rxl@arrl.net> wrote in message news:3DDCC74E.5090507@arrl.net...
> I am looking for a compact, light beam antenna for the HF
> bands, 20 thru
> 10 meters.
> Am undecided between the Butternut Butterfly and the T.G.M.
> MQ-1.
> I would like to hear any comments from users of either of
> these or any
> suggestions.
> Hank, W2RXL
>

2884. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 15:23:06 UTC
From: richardharrison@webtv.net
Message-ID: <3012-3DDCFA5A-228@storefull-2317.public.lawson.webtv.net>
Source record: 130974

Dave, WD9BDZ wrote:
"Actually private pilots have to requalify every two years."

On their equestrian skills?

Best regards, Richard Harrison, KB5WZI

2885. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 15:51:15 UTC
From: gaschafer@attbi.com
Message-ID: <3ddd011c.4632328@netnews.attbi.com>
Source record: 130975

On Thu, 21 Nov 2002 04:01:51 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Alan Fowler wrote:
>> . . .
>> Doesn't matter where you make the connection, the
>> current will head for the lowest impedance path (the outer
>> (Conducting) surface as fast and directly as it can.
> >. . .
>
>If the connection is to the inner surface, the shortest path to the
>outer surface is along the inside to the nearest opening, then out. This
>might be a short path or it might be long. If the path is long, it'll
>add substantial inductance and, in the case of a small loop, unnecessary
>loss.
>
>Roy Lewallen, W7EL
>

This brings a question to mind. If you uses copper tubing for a tank
coil and don't flatten the
ends when connecting it in the circuit, will you have any less loss?
Will rf current flow on the
inside of the tubing as well as the outside thus reducing skin
resistance or will it only flow on the
outside?

73
Gary K4FMX

2886. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 15:54:32 UTC
From: richardharrison@webtv.net
Message-ID: <3012-3DDD01B8-231@storefull-2317.public.lawson.webtv.net>
Source record: 130977

Jacques, ON5MJ wrote:
"How to avoid that radioamateurism becomes CB with 100 watts?"

"The government that governs least, governs best" is a reasonable proposition.

Licensing would not be needed were there not interference in uncontrolled use.

Egalitarians insist on equal rights limited only by possibility of serious harm.

CB with 100 watts for everyone could be handled with cautious regulation and enforcement.

Best regards, Richard Harrison, KB5WZI

2887. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 16:08:20 UTC
From: derswede@aol.comspam.com
Message-ID: <20021121110820.00288.00002053@mb-md.aol.com>
Source record: 130976

>The problem with ham radio is that it has become too easy to operate
>once you get the licence. Nobody has any respect for the rules because
>they didn't put in any more effort to get their equipment on the air
>than by reading the manual that came with it. The hobby has become
>like playing pac-man on the computer: it's entertaining but of little
>value.
>
>The way to make it valuable again is to allow hams to use only
>tube-type equipment, with no circuit boards, no computer chips; only
>good old-fashioned capacitors, resistors and inductors. Power output
>not to exceed 25 watts.
>
>Sure, it will keep the hobby to a pre-1970 or so level, technically,
>but it will also make it something that's worth doing.

Heh.....tubes?? Do you know how tough it is to get certain tubes this day and time? (and I'm sure you DO know) I'm restoring several boatanchors and have spent more time searching out certain tubes and caps (admittedly ones matching the look of the originals) than I would ever get back out of the rigs. 'Course, I don't plan to SELL the rigs...but use them.

Also, those requirements would drive a large portion of the HF operators out of amateur radio....as well as allow the FCC to justify selling off additional freqs. (technical competence would no longer be there....not "state of the art."). I can think of exactly one person locally who uses homebrew gear (a General class, not Extra, too).

Motivating people is what needs to be done...hard in this "I wanna" world. Heck, I have people ask me why I work so hard.....couldn't live with myself if I didn't give something my all. If you can figure out a way to motivate those interested in the hobby and make it worthwhile (i.e., flaming someone who is attempting to enhance their knowledge doesn't help), then those with an interest will come. Hear someone new that isn't doing something 100% correct? Offer counsel and advise...don't blast. He or she may not know the diff., so lead....don't shoot. Don't disparage...most anyone can be trained (ok, there ARE exceptions!).

BTW, I'm one of those "useless" no code techs. I have NO problem with having to learn CW for HF privileges, either (which I am currently doing....taken awhile, tho).

Andrew
(see ya on 50.125 or 144.200)

2888. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 16:23:11 UTC
From: richardharrison@webtv.net
Message-ID: <3013-3DDD086F-79@storefull-2317.public.lawson.webtv.net>
Source record: 130982

Nomen Nescio wrote:
"The hobby has become like playing pac-man on the computer; it`s entertaining but of little value."

Amateur radio is forever changed. Wireless is not an exciting novelty when everyone has a cell phone.

As a disaster service, amateur radio has forever lost clout because of cell phones and plenty of well equipped media.

Amateur radio never had an everyday serious function. That is prohibited by law. Any serious function must be handled by other communications services which can accept money.

Amateur radio is good as free communication for hike and bike fund-raisers.

Amateur radio as it was can`t be resurrected.

Best regards, Richard Harrison, KB5WZI

2889. Re: HALO ANTENNA FOR TWENTY METERS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 16:28:59 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <6pmdnWApndP6lECgXTWc3w@comcast.com>
Source record: 130978

Chris,

I agree with the gamma match idea, but there are simple ways to get a usable match. First, 30 ohms is not bad; that is an SWR of 1.66. Once you go through some lengths of coax, you may end up with 1.5. Since you have a folded dipole, you need a 1:1 balun.

To match 9 ohms, use a 1/4 wave section of 25 ohm coax, made up of two pieces of 50 ohm coax in parallel. The SWR of the matching section will be 25/9=2.777. The impedance at the end of the quarter wave section will be 25x2.777= 69 ohms. Not bad. The SWR on the 50 ohm feedline will then be 1.38:1.

There is a section in either the ARRL Handbook, or Antenna Manual that tells how to use short combinations of 50 and 75 ohm coax to match any reasonable impedance to 50 ohms. Being in ZL, that may be a problem.

Tam/WB2TT
"Chris Muir" <cbmuir@xtra.co.nz> wrote in message
news:tLZC9.10089$8o1.1570926@news.xtra.co.nz...
> I am trying to finalise dimensions and matching for a full size 20 meter
> horizontal dipole bent around to form a compact square antenna rather like
a
> VHF Halo.
>
> Modelling with EZNEC Demo suggests a fairly omnidirectional horizontal
> pattern and little reduction in performance compared with a regular
dipole.
> However the feedpoint impedance does drop significantly - to about 9 ohms
or
> so. I have changed element to a two-wire folded dipole and this brings
the
> impedance up somewhat to about 30 ohms.
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> My question is whether shorts placed across the folded elements at some
> point in from each "end" will increase the normal 4:1 transformation ratio
> to give me a near 50 ohm match? How does one caculate where these shorts
> should be? I dont think I want to go to a three wire folded dipole!
>
> Chris ZL1BOE
>
>

2890. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 16:29:56 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <3L7D9.652$pc.134487@news.iquest.net>
Source record: 130979

"AA" <derswede@aol.comspam.com> wrote in message
news:20021121110820.00288.00002053@mb-md.aol.com...
> >The problem with ham radio is that it has become too easy to operate
> >once you get the licence. Nobody has any respect for the rules because
> >they didn't put in any more effort to get their equipment on the air
> >than by reading the manual that came with it. The hobby has become
> >like playing pac-man on the computer: it's entertaining but of little
> >value.
> >
> >The way to make it valuable again is to allow hams to use only
> >tube-type equipment, with no circuit boards, no computer chips; only
> >good old-fashioned capacitors, resistors and inductors. Power output
> >not to exceed 25 watts.
> >
> >Sure, it will keep the hobby to a pre-1970 or so level, technically,
> >but it will also make it something that's worth doing.
>
> Heh.....tubes?? Do you know how tough it is to get certain tubes this day and
> time? (and I'm sure you DO know) I'm restoring several boatanchors and have
> spent more time searching out certain tubes and caps (admittedly ones matching
> the look of the originals) than I would ever get back out of the rigs.
> 'Course, I don't plan to SELL the rigs...but use them.
>
Actually, one should allow hams only to run equipment that they build and also
that equipment should meet reasonable technical standards (using REASONABLE
standards for homebrew.) If this means that the operator needs to build a
semiconductor 100W transmitter, then so be it!!! :-). This would certainly tend
to keep the 500W+ equipment less common, and those with the technical
expertise and discipline will more likely be those who have the equipment.

There'd be a few more hams with RF burns, but many more would really know how
their equipment works, and act more like hams than extension of CB. You'know
that CBers buy their kW linears also, even though illegally.

Rather than 'morse code', it'd be better for Hams to be well versed in the more
interesting modulation techniques of the current and future times. People who
are interested in 'quaint' history or interested in slow speed (but narrow-band
and long distance) transmission will continue to use morse code.

Increase the technical standards to a minimal level of COMPETENCY and not
memorization, while restrict access to the code bands to those with code
endorsement. Restrict access to complex modulation bands to those who
have the highest TECHINCAL expertise. In some cases, there'll be people with
both sets of permissions... Keep much of the VHF/UHF spectrum for the
communicator class of hams (e.g. those who buy their store-built equipment),

but reserve ALOT of space for those who take the learning part of the hobby seriously (high-end technical endorsement.)

John

2891. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 16:36:37 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <pY7D9.2280$4j5.1223340@newssvr28.news.prodigy.com>
Source record: 130973
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

If you really want to increase the Ham ranks, and improve people's knowledge
and skill at the same time...

Have a monthly operating contest where the winner gets $5000.
Have a monthly design contest where the best project gets $5000.

After winning, you would have to sit out for 2 years so others could
benefit.
The FCC could fund this using the revenue from the spectrum of ours that
they're selling to the cellular crowd and other big lobbies ;-)

--
73,
Larry N8LP
www.telepostinc.com/n8lp.html

<paulfriedman@attbi.com> wrote in message
news:Ml6D9.91851$NH2.6246@sccrnsc01...
> Jim:
>
> Not to complain <grin>, but you skipped my favorite part.
>
> In Step 5 you are supposed to cancel your ARRL membership. Then, in Step 6
> you are supposed to complain to the organization from which you just
> resigned and in which you now have no standing. I think we need a step 8:
> LCT at 2IAO (Logical Consistency Test at 2 Ideas at Once level.)
>
> 73
>
> Paul ab0si
>
>
> "N2EY" <N2EY@AOL.COM> wrote in message
> news:c2356669.0211210512.180146a6@posting.google.com...
> > rettysnitch@ugerumf.com (Wouff Hong) wrote in message
> news:<arrl.doesnt.care.anymore@all.com>...
> >
> > > Step 1: No more automatic renewals. Individuals must retest and
> > > pass all elements required for their license class.
> >
> > No problem! btw, are YOU volunteering to be part of the VE system that
> > would have to administer an additional ~70,000 exams-for-renewal per
> > year? Or is this a "let someone else do the work" idea?
> > >

> > > Step 2: The passing score for written exams needs to be raised to 90%.
> >
> > Again, no problem. But how are you going to convince FCC?
> > >
> > > Step 3: Code elements should be 13 wpm for General, and 20 wpm for
> Extra.
> >
> > Again, no problem. But how are you going to convince FCC? What new
> > argument will change their minds after they have been gradually
> > phasing out code testing for the past 20 years?
> > >
> > > Step 4: Make the no-code license one year non-renewable.
> >
> > Why? And are YOU volunteering to be part of the VE system that would
> > have to administer the tens of thousands of additional upgrade exams
> > per year? Or is this a "let someone else do the work" idea?
> >
> > > Step 5: Cancel your league membership until they decide to work
> > > to improve things.
> >
> > Did you read the ARRL's proposal and comments on restructuring? What
> > should ARRL be doing that they are not doing now?
> > >
> > > Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
> >
> > Why? Enforcement is FCC's job.
> > >
> > > Step 7: Turn in rule breakers to the FCC.
> >
> > How many tapes have you sent to Riley?
> >
> > Heck, this isn't even a new list! Just a rehash of one from May of
> > 2000. The Troll-O-Meter judges unanimously disqualify it from
> > consideration due to its nonoriginal content.
> >
> > 73 de Jim, N2EY
>
>

2892. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 16:37:09 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <PR7D9.653$pc.134484@news.iquest.net>
Source record: 130980
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

"N8KDV" <n8kdv@iserv.net> wrote in message news:3DDC6876.D4B96733@iserv.net...
> Typical comments by someone who is simply to lazy to learn. We've heard it all before.
>
Hmmm.... I had a license with code requirements (many years ago), but I also
have problems with certain kinds of motor skills. It isn't impossible, but I do tend
to find the competency of 100W+ CBers who happen to have ham licenses to
be disappointing.

My biggest frustration now is the use of SOT type packages for my RF design, but
I am working through the issues, and learning how to deal with the technical problems.
I suspect that much of the ham hobby is being supressed by the commonly available
parts technology (and at UHF+, the needed smaller dimensions.) However, from a
time and 'exclusive club' standpoint, I suggest that the competency of 95% of the hams
would be quite insufficient to build and fully understand their equipment.

This is akin to a brutish physical skill overwhelming intellectual comptency. Morse
code is only a brutish, anachronistic (most of the time) skill (which is problematical
WRT poor fine motor control.) It is apparent that some in the ham community
are compensating for lack of sufficient mental skills by making it exclusionary based upon
physical skills.

John

2893. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 16:39:00 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <yT7D9.654$pc.134374@news.iquest.net>
Source record: 130981
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Fred Hambrecht Sr." <w4jle@charter.net> wrote in message
news:utorvc8qashpff@corp.supernews.com...
> Great gobs of bovine excrement, the license is simply insufficient
> motivation for you to learn code.
>
The amazing thing is the dumbing down of ham radio (but the rigs are beautiful
nowadays aren't they?) Ham radio is now almost an endorsement on CB, rather
than having to REALLY know (not just remember) something appropriate for
the current world.

John

2894. Re: radials question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 16:41:23 UTC
From: richardharrison@webtv.net
Message-ID: <3012-3DDD0CB3-238@storefull-2317.public.lawson.webtv.net>
Source record: 130984

I wrote:
"A battery of zinc and copper in a solution has a negative polarity zinc anode and a positive polarity copper cathode."

This works pretty well in sea water. The copper is poisonous to barnacles and the zinc is self-cleaning as it desolves.

Best regards, Richard Harrison, KB5WZI

2895. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 17:04:43 UTC
From: derswede@aol.comspam.com
Message-ID: <20021121120443.00238.00002215@mb-md.aol.com>
Source record: 130983

>Actually, one should allow hams only to run equipment that they build and
>also
>that equipment should meet reasonable technical standards (using REASONABLE
>standards for homebrew.) If this means that the operator needs to build
>a
>semiconductor 100W transmitter, then so be it!!! :-). This would certainly
>tend
>to keep the 500W+ equipment less common, and those with the technical
>expertise and discipline will more likely be those who have the equipment.
>
>There'd be a few more hams with RF burns, but many more would really know
>how
>their equipment works, and act more like hams than extension of CB.

Good idea! Or at least build SOME gear....antenna, interfaces, preamps, etc. Heh....I'd hope that restoring BA's would count <<grin>>. Saddest thing I've heard, what with all the "CB" insults shouted around, are those who could contribute to the hobby leaving for other hobbies. At least those who TRY to bring others into the hobby will be doing more than a thousand complaining about the "newbies." NO ONE can ever again be a 20wpm extra licencee (i.e., passed 20wpm to get their ticket). Don't hold it against those trying to enter the hobby, as, internationally, CW is going away as a requirement. Make CW a point of HONOR, something to achieve, not a point of division!! (i.e., not an insult; "you no-coder." Make it a complement, i.e., "hey, you know CW, come on down to the CW only areas and have fun!" "Don't know CW? Why not try, we have fun on the special parts reserved for CW")(and, no, this won't work for everyone....of course. Some folks have no honor...right, Worf?)

Andrew

2896. Re: Compact Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 17:22:38 UTC
From: nospam <xxxmmxxx@xxxspiritone.com>
Message-ID: <3DDD165D.95539DF0@xxxspiritone.com>
Source record: 130986

try www.hexbeam.com

Schwalenstocker wrote:

> I am looking for a compact, light beam antenna for the HF
> bands, 20 thru
> 10 meters.
> Am undecided between the Butternut Butterfly and the T.G.M.
> MQ-1.
> I would like to hear any comments from users of either of
> these or any
> suggestions.
> Hank, W2RXL

2897. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 17:30:49 UTC
From: richardharrison@webtv.net
Message-ID: <3012-3DDD1849-243@storefull-2317.public.lawson.webtv.net>
Source record: 130985

Gary, K4FMX wrote:
"Will rf current flow on the inside of the tubing as well as on the outside---?"

Not as well because the outside is larger than the inside. Not only is there more surface outside but there is less inductance. See Terman`s 1955 "Electronic and Radio Engineering" page 21.
"It is to be noted that some of this flux exists within the conductor and therefore links with, i.e., encircles, current near the center of the conductor while not linking with current flowing near the surface. The result is that the inductance of the central part of the conductor is greater than the inductance of the part of the conductor near the surface---."

This is so even in hollow conductors. The smaller the radius, the higher the inductance.

Best regards, Richard Harrison, KB5WZI

2898. Re: radials question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 17:51:54 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDD1D3A.3AEB30FC@ieee.org>
Source record: 130987

Richard Harrison wrote:
>
> I wrote:
> "A battery of zinc and copper in a solution has a negative polarity zinc
> anode and a positive polarity copper cathode."
>
> This works pretty well in sea water. The copper is poisonous to
> barnacles and the zinc is self-cleaning as it desolves.

Uh-oh, now you've done it. Green Peace won't stand for the
poisoning of barnacles.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2899. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 18:09:37 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211211009.3ef8abb2@posting.google.com>
Source record: 130988

Roy Lewallen <w7el@eznec.com> wrote in message news:<utpipddjra2ve3@corp.supernews.com>...
> Alan Fowler wrote:
> > . . .
> > Doesn't matter where you make the connection, the
> > current will head for the lowest impedance path (the outer
> > (Conducting) surface as fast and directly as it can.
> >. . .
>
> If the connection is to the inner surface, the shortest path to the
> outer surface is along the inside to the nearest opening, then out. This
> might be a short path or it might be long. If the path is long, it'll
> add substantial inductance and, in the case of a small loop, unnecessary
> loss.
>
> Roy Lewallen, W7EL
Roy
What has the 'shortest' path got to do with it?
Art

2900. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 18:26:03 UTC
From: Kevin_Ryder <Kevin_Ryder@email.msn.com>
Message-ID: <u#JcatYkCHA.1432@cpimsnntpa03>
Source record: 130989
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

The best way to improve ham radio is for hams/ amateurs to stop thinking
they are better for they are not. Everyone Is Innocent.

KR

"John S. Dyson" <dyson@iquest.net> wrote in message
news:yT7D9.654$pc.134374@news.iquest.net...

"Fred Hambrecht Sr." <w4jle@charter.net> wrote in message
news:utorvc8qashpff@corp.supernews.com...
> Great gobs of bovine excrement, the license is simply insufficient
> motivation for you to learn code.
>
The amazing thing is the dumbing down of ham radio (but the rigs are
beautiful
nowadays aren't they?) Ham radio is now almost an endorsement on CB,
rather
than having to REALLY know (not just remember) something appropriate for
the current world.

John

2901. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 18:33:29 UTC
From: James Hammons <james-e-hammons@worldnet.att.net>
Message-ID: <ek5qtukjuhu0uh38degnutqkt864umek3b@4ax.com>
Source record: 130990

It took a bit of work to get 4nec2 running, but it is well
worth it. I am a beginner at antenna modeling so keep that in mind,
Here are my impressions of 4nec2 and other demos I have tried. The
editor is not as easy to use as NECwin+ but the demo has run out and I
can't justify buying NECwin+, on my retirement income. The demo for
EZNEC in my opinion is useless and The editor for entry seems to me to
be poor. Not a good way to try to sell a program. Judging from the
demo I would rank EZNEC a distant last place. All three programs are
not very user friendly. You need to learn quite a bit about the NEC2
to do much with any of them. NECwin+ is the easiest to use for a
beginner. Their 30 day trial is useful for learning, even if you
decide you can't justify the price.
I found I could change the file extension of the models I had
written in NECwin+ from .inp to .nec and open them in 4nec2. 4nec2
has the best set of sample models by far and you need them to figure
out how to program the deck.
I can't print patterns on my Laser Jet but this is mentioned in
the documentation and it works fine on my color printer.
The windows in 4NEC are too small. You can't see the entire
title of long file names for example and they don't scroll.
If 4NEC2 had a better editor and entry system and better
documentation it would blow the others out of the water. 4NEC2 has
better graphics and plots with more information. I think it produces
the most professional result.
I am very happy with 4NEC2 and I can't thank the author enough,
for giving me such a fine program.

James Hammons

On 21 Nov 2002 01:05:14 -0800, 4nec2@gmx.net wrote:

>Richard Clark <kb7qhc@attbi.com> wrote in message
news:<pqintu0o1lp7u21aqncaep7ialokkcvs5t@4ax.com>...
>> On 20 Nov 2002 06:43:36 -0800, 4nec2@gmx.net wrote:
>>
>> Is your system on drive D:? I doubt it.
>
>No, and you are right, I did not consider this possibility.
>
>> The simple solution is to remove all "C:" references from the hard
>> code.
>
>I'll check this once more, but (from my memory) I can not remember
>having any references to C:\
>

>> This only means you have passed this"too much effort" onto your user.
>> In this day and age this is evidence of not ready for prime time,
>> especially since free installers have been around for at least 5
>> years.
>
>I tried the IEXPRESS.EXE But this does not seem to work on W-95 and/or
>W-me (on which I created my 4nec2). If you have any other free, and
>EASY to use, installer references, I would very much like to know.
>
>> New systems are on the shelves WITHOUT floppy drives and software
>> delivery is either Web based or CDROM based.
>
>One of my targets with 4nec2 is to keep the package/executable as
>small as possible, to allow it to run also on not so state-of-the-art
>systems.
>
>That's also why it's free, to support those who don't have lot's of
>money to spend on modern computer systems or the latest commercial
>modelling packages.
>
>Thanks, for the feedback,
>Arie.

2902. Re: radials question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 18:38:45 UTC
From: richardharrison@webtv.net
Message-ID: <3012-3DDD2835-254@storefull-2317.public.lawson.webtv.net>
Source record: 130991

CAM wrote:
"Green Peace won`t stand for the poisoning of barnacles."

I hate barnacles. Everybody aboard used to have to turn-to scraping barnacles off the bottom of my ship in dry-dock except the steward`s mate. He claimed it was discrimination to nake a black guy scrape barnacles! So , there he sat watching all the officers and enlisted men except him scrape barnacles. We had to finish fast in war time. Pretty smart!

Best regards, Richard Harrison, KB5WZI

2903. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 18:57:47 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <arjabb$sk7$0@208.206.142.104>
Source record: 130992
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"John S. Dyson" wrote:
>
> "Fred Hambrecht Sr." <w4jle@charter.net> wrote in message
news:utorvc8qashpff@corp.supernews.com...
> > Great gobs of bovine excrement, the license is simply insufficient
> > motivation for you to learn code.
> >
> The amazing thing is the dumbing down of ham radio (but the rigs are beautiful
> nowadays aren't they?)

Isn't it a real paradox? The smarter and more beautiful the radios, the
dumber the hams who use them! :-)

Ham radio is now almost an endorsement on CB, rather
> than having to REALLY know (not just remember) something appropriate for
> the current world.

I certainly have no problem agreeing with this, although it really has
little or nothing to do with Morse code on ham radio. You can always use
a keyboard to send if you can't physically handle a manual key or
paddle. I may go to one of those due to arthiritis myself one of those
days. But a computer program does a really poor job of copying, as far
as any I;ve been able to evaluate shows. That will probably change if
some of you more computer literate souls choose to keep working on it.
Looks like you'd rather just dump the whole mode. That I don't
understand. I do understand why some people don't like th emode, and I
can appreciate that. There are things I don't like, too. I have no great
love for Morse code(despite the rantings of some of the more rabid
anticoders who post here), but I learned to respect it for what it is
and appreciate it for what it offers-the most basic, simple, easily
implemented mode of radiocommunications yet devised.

Does that mean I or any other CW supporter would in any way advocate
use of CW -at any time- to the exclusion of better more efficient modes?
Of course not, again despite the rumblings of some anticoders posting
here. I, and most other code supporters, routinely use advanced digital
modes, some of us use them more than CW. Again, that does nothing
whatever to diminish the qualities of Morse code. Some of us understand
the mode well enough to consider it to be a valuable asset to ham radio.
If you don't, that's certainly your privilege.

Dick

2904. Re: Compact Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 19:01:36 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <L8Sdnds2EsK2sECgXTWcqA@comcast.com>
Source record: 130993

Hank,

In the long run, I don't think you will be happy with any of these. If you don't want to put up a full size beam, I would investigate two element tribanders like the Hygain TH2. This thing has a 6 foot boom, but 27 foot elements. If you can get it at least 35 feet in the air, you would be able to routinely work anywhere in the world with it. I have the TH3, and it covers all of 15 and 20 meters with an SWR less than 2:1, and all of 10 meters except about the top 50 KHz. Resonant SWR is about 1.2. I think the difference in gain between a 2 element and 3 element beam is only about 2DB

Tam/WB2TT
"Schwalenstocker" <w2rxl@arrl.net> wrote in message
news:3DDCC74E.5090507@arrl.net...
> I am looking for a compact, light beam antenna for the HF
> bands, 20 thru
> 10 meters.
> Am undecided between the Butternut Butterfly and the T.G.M.
> MQ-1.
> I would like to hear any comments from users of either of
> these or any
> suggestions.
> Hank, W2RXL
>

2905. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 19:07:27 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <f5bqtu4vic4cdfgd7l85m3upa5t65q5lb5@4ax.com>
Source record: 130994

On 21 Nov 2002 01:05:14 -0800, 4nec2@gmx.net wrote:

>
>I tried the IEXPRESS.EXE But this does not seem to work on W-95 and/or
>W-me (on which I created my 4nec2). If you have any other free, and
>EASY to use, installer references, I would very much like to know.
>
>> New systems are on the shelves WITHOUT floppy drives and software
>> delivery is either Web based or CDROM based.
>
>One of my targets with 4nec2 is to keep the package/executable as
>small as possible, to allow it to run also on not so state-of-the-art
>systems.
>
>That's also why it's free, to support those who don't have lot's of
>money to spend on modern computer systems or the latest commercial
>modelling packages.
>
>Thanks, for the feedback,
>Arie.

Hi Arie,

The advice comes filtered through my own experience doing the same thing you are doing now. Instead of an antenna modeler, my work is a personal web robot that does what is called "Text Data Mining." I was in D.C. last summer when the FBI showed some interest in it.

If anyone is interested in their own search engine, they can find my work-in-progress called RoBot Explorer at:
http://home.attbi.com/~r-w-clark/mine/index.htm
It consists of a single Java Bean Jar (which on newer Windows machines will open automatically, or you need to "associate" it with your copy of the Java Runtime Executor (JRE)).

Almost every installer I've encountered from a commercial purchase has an entry level non-commercial use version available - or they did when I was interested in them.

If your code was developed and runs on WinME, it is the miracle product of the millennium (WinME is an abomination - I stepped up to Win2K and won't look back).

73's
Richard Clark, KB7QHC

2906. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 19:12:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utqc0f56q0bc49@corp.supernews.com>
Source record: 130995

Art Unwin KB9MZ wrote:
> Roy Lewallen <w7el@eznec.com> wrote in message
news:<utpipddjra2ve3@corp.supernews.com>...
>>
>>If the connection is to the inner surface, the shortest path to the
>>outer surface is along the inside to the nearest opening, then out. This
>>might be a short path or it might be long. If the path is long, it'll
>>add substantial inductance and, in the case of a small loop, unnecessary
>>loss.
>>
>>Roy Lewallen, W7EL
>
> Roy
> What has the 'shortest' path got to do with it?
> Art

Sorry, I don't unstand the question. Got to do with what?

Roy Lewallen, W7EL

2907. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 19:24:02 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <vdcqtugckstecect57qhjf7gifqbjfl5qh@4ax.com>
Source record: 130996

On 21 Nov 2002 10:09:37 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>Roy Lewallen <w7el@eznec.com> wrote in message
news:<utpipddjra2ve3@corp.supernews.com>...
>> Alan Fowler wrote:
>> > . . .
>> > Doesn't matter where you make the connection, the
>> > current will head for the lowest impedance path (the outer
>> > (Conducting) surface as fast and directly as it can.
>> >. . .
>>
>> If the connection is to the inner surface, the shortest path to the
>> outer surface is along the inside to the nearest opening, then out. This
>> might be a short path or it might be long. If the path is long, it'll
>> add substantial inductance and, in the case of a small loop, unnecessary
>> loss.
>>
>> Roy Lewallen, W7EL
>Roy
>What has the 'shortest' path got to do with it?
>Art

Hi Art,

Even at DC, when speaking of resistance, a longer path is a lossier
path. The original poster is connecting to a loop. He has identified
an alternate connection to the interior of the loop element, a large
radius tube. I responded with:
>
>Secondly, attaching to the interior means the RF path will simply flow
>along the inner surface to follow your cable back outside through that
>puncture in the RF shield (how the cable got inside in the first
>place) and complete its business in the usual fashion. However, as
>the currents are huge, why would you add non-inductive length?
So, for most here, a shorter path has everything to do with RF. As
much so, or more than at DC.

I would ask you the same, slightly altered question:
>why would you add lossy non-inductive, non-radiative, non-supporting length?

73's
Richard Clark, KB7QHC

2908. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 19:34:02 UTC
From: richardharrison@webtv.net
Message-ID: <3012-3DDD352A-263@storefull-2317.public.lawson.webtv.net>
Source record: 130998

Art, KB9MZ wrote:
"What has the "shortest" path got to do with it?"

The shortest surface path is the path of least r-f resistance and impedance.

Best regards, Richard Harrison, KB5WZI

2909. Re: HALO ANTENNA FOR TWENTY METERS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 19:34:23 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <tscqtu4nnvns2a28t9gojk548q6fapto68@4ax.com>
Source record: 130997

On Thu, 21 Nov 2002 18:00:13 +1300, "Chris Muir" <cbmuir@xtra.co.nz>
wrote:

>I am trying to finalise dimensions and matching for a full size 20 meter
>horizontal dipole bent around to form a compact square antenna rather like a
>VHF Halo.
>
>Modelling with EZNEC Demo suggests a fairly omnidirectional horizontal
>pattern and little reduction in performance compared with a regular dipole.
>However the feedpoint impedance does drop significantly - to about 9 ohms or
>so. I have changed element to a two-wire folded dipole and this brings the
>impedance up somewhat to about 30 ohms.
>
>My question is whether shorts placed across the folded elements at some
>point in from each "end" will increase the normal 4:1 transformation ratio
>to give me a near 50 ohm match? How does one caculate where these shorts
>should be? I dont think I want to go to a three wire folded dipole!
>
> Chris ZL1BOE
>

Hi Chris,

This one usually throws most and they respond with conventional
answers.

However, matching with a folded element is walk in the park. There
are several analysis available for a folded antenna, and all fit
together by virtue of what is known as "superposition."

One of those analysis is done with a transformer model. In that
model, it is the ratio of the turns, or the ratio of the wire
diameters that determines feedpoint R. You scoffed at the notion of a
3 wire model, but this is a common alternative.

You need a 1:5 or a 1:6 boost. You can add wires and go from there,
or you can take two different wire gauges and let it do it through
those ratios (this may take some experimentation along with wire
separation).

73's
Richard Clark, KB7QHC

2910. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 19:49:04 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211211149.3478be54@posting.google.com>
Source record: 130999
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

plampione@yahoo.com (Peter Lampione) wrote in message
news:<b30faff8.0211202034.1cf442eb@posting.google.com>...
> I would suggest somethig rather different.
>
> Take out the code requirement, and put in the test some DSP questions
> (how to make filters, equalize volume, remove noise, and modulate in
> phase, frequency, quadrature, etc) as well as more advanced circuit
> design.

Why should this replace the code requirement? Why not learn both?
>
> The code requirement is just silly.
> Code is just one of the many ways to encode a signal, a way that
> happens to be possible to do by hand.

Better than doing something else with my hand...:/

But why bother with it?

Why not?

> That it is useful in emergencies is a ridiculous thing - if your
> transceiver works, you might as well talk into it, so also general
> SWL, and not only hams, can understand your transmission.

I don't care if the general population can understand me. They can't
talk to me, so whats the point?

> Instead, with the increased ease with which signals are digitized,
> DSP should really be required knowledge.

I know plenty enough to be able to use DSP. I have DSP built into my
radio, and I have it outboard on my computer. Most of my PSK-SSTV,
etc, etc programs also use DSP. Big deal...

> I mean, it takes so little nowadays to feed the signal into an audio
> board
> or better A/D converter, and then start doing things digitally...

You said it... So what makes it so special?
>
> In fact, consider this: DSP should be required because, in case of
> emergency, you hook up your PC/laptop audio board to the radio, and
> there you go,
> modulating any way you want...

I can train a smart monkey to do that. But overall we have a problem..
If I have an emergency, can I call you to come over to the scene and
bring a laptop? I have a radio in my car, but no laptop yet. Of
course, I could talk into the mike, or use a code key, but I want to
be stylish like you. Hummmm, you say you live many states away? Take 5
days for the laptop to get to my accident scene via UPS? Oh well...
I've still got my hand to keep me company in the meantime...

> Code is what keeps me getting a ham licence.

Why? Are you "gifted" or something?

> I just don't suffer fools gladly, and the code requirement is foolish.
> If I want to waste time, there are many more pleasant ways to do it.

Well, ok then. A man's got to know his limitations...

>
> Oh and one more thing: I think it is incredibly funny that in a
> country where you can get a driver's licence without knowing how to
> operate a stick shift, you cannot operate ham without knowing code.

What does a country have to do with this? It's international treaty.
BTW, in this state, the car you take into the driving test will
determine if you need to know how to manual shift or not. If it has a
manual transmission and you can't shift it well enough to drive, you
won't get a license. You will have to buy a new car with an automatic,
and retake the test. Expensive way to get a drivers license if you ask
me...

>
> There, now flame me.

Naw...Just pity...Anyone that lets a snail slow 5 wpm code test stand
in their way, doesn't really want a ticket too bad. What does it take
to learn? All of two weeks? Good grief...How long did it take you to
learn all about DSP?

Next.... MK

2911. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 19:59:58 UTC
From: plampione@yahoo.com
Message-ID: <b30faff8.0211211159.57a762c3@posting.google.com>
Source record: 131000
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

Oh I am quite willing to learn things in general!
But the point is, there are so many things to learn,
and I prefer to learn useful things to useless ones.
I'd rather spend time learning more about DSP, that can
be useful to me to post-process radio signals, than code,
that I am likely to never use.

And another poster commented that I simply not motivated enough
by amateur radio to learn code.
True, by definition.
I sometimes listen to what hams talk about; 95% of the time
they talk about their radio setup.
The idea of having to learn code, get a licence, and build an
antenna, to be able to talk about my radio on the air
is ... uh ... less than overwhelmingly enticing.

I predict that, with all the new technologies available now
(cellphones, internet, computers, etc etc), amateur radio will
simply die out for lack of interest; the ARRL and others are
doing a pityful job of getting the newer generations involved.
Too bad, because some things going on with packet radio,
computers, routing etc are incredibly cool.

They keep up this old-fashioned requirements, and they don't
realise that, as the younger people are turned off,
their radios will also eventually be turned off, when FCC
reclaims the frequencies.
They see the refusal of somebody to learn code as that person's
problem, and they don't realise that the lack of membership will
soon be their problem.

Sooner or later the FCC is going to reclaim those frequencies
due to lack of interest, and nobody in the US consituency will care,
except the 0.0001% of the population - hardly a political constituency.
Come on - listen to the actual _content_ of ham conversations:
if SW bandwidth ever becomes valuable, I don't think ARRL has a chance
to argue that there is something worthy going on there.
And the original purpose, to spread the knowledge of radio technology,
is moot now - with so many other important technologies, why would
one worry so much about radio?

Many hams are now in their 50s. I predict that by the time they are
dead, in about 25 years, amateur radio will also be dead, reduced to
a small number of frequencies used for emergency communication.
All the rest will be commercial bandwidth.

Peter

N8KDV <n8kdv@iserv.net> wrote in message news:<3DDC6876.D4B96733@iserv.net>...
> Typical comments by someone who is simply to lazy to learn. We've heard it all before.
>
> Peter Lampione wrote:
>
> > I would suggest somethig rather different.
> >
> > Take out the code requirement, and put in the test some DSP questions
> > (how to make filters, equalize volume, remove noise, and modulate in
> > phase, frequency, quadrature, etc) as well as more advanced circuit
> > design.
> >
> > The code requirement is just silly.
> > Code is just one of the many ways to encode a signal, a way that
> > happens to be possible to do by hand. But why bother with it?
> > That it is useful in emergencies is a ridiculous thing - if your
> > transceiver works, you might as well talk into it, so also general
> > SWL, and not only hams, can understand your transmission.
> > Instead, with the increased ease with which signals are digitized,
> > DSP should really be required knowledge.
> > I mean, it takes so little nowadays to feed the signal into an audio
> > board
> > or better A/D converter, and then start doing things digitally...
> >
> > In fact, consider this: DSP should be required because, in case of
> > emergency, you hook up your PC/laptop audio board to the radio, and
> > there you go,
> > modulating any way you want...
> >
> > Code is what keeps me getting a ham licence.
> > I just don't suffer fools gladly, and the code requirement is foolish.
> > If I want to waste time, there are many more pleasant ways to do it.
> >
> > Cheers!
> >
> > Peter
> >
> > Oh and one more thing: I think it is incredibly funny that in a
> > country where you can get a driver's licence without knowing how to
> > operate a stick shift, you cannot operate ham without knowing code.
> >
> > There, now flame me.
> >
> > rettysnitch@ugerumf.com (Wouff Hong) wrote in message
news:<arrl.doesnt.care.anymore@all.com>...
> > > Step 1: No more automatic renewals. Individuals must retest and
> > > pass all elements required for their license class.
> > >
> > > Step 2: The passing score for written exams needs to be raised to 90%.

> > >
> > > Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.
> > >
> > > Step 4: Make the no-code license one year non-renewable.
> > >
> > > Step 5: Cancel your league membership until they decide to work
> > > to improve things.
> > >
> > > Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
> > >
> > > Step 7: Turn in rule breakers to the FCC.
> > >
> > >
> > > 73, de Wouff Hong

2912. Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 20:01:54 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <arje3i$4hd$1@knossos.btinternet.com>
Source record: 131001

NOW AVAILABLE ** New Program STUMATCH.exe"

This program assists with the design of stub-line transformers used for such purposes as matching the feedpoint impedance of radio antennas to the Zo impedance of the transmission line from the transmitter. The program is applicable to both balanced-pair and coaxial lines. These and similar types of transmission line transformers have traditionally been designed with the aid of Smith Charts. The superiority of this program in respect of time, operating simplicity, accuracy and user appreciation is clearly seen.

Download STUMATCH from website below.

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

2913. Re: LEGAL CABLE DESCRAMBLER mmmm

2914. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 20:27:50 UTC
From: Mike Freeman <mikef@pacifier.com>
Message-ID: <Pine.BSO.4.33.0211211225250.2335-100000@shell.pacifier.com>
Source record: 131003
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

On 20 Nov 2002, Wouff Hong wrote:

> Step 1: No more automatic renewals. Individuals must retest and
> pass all elements required for their license class.
>
> Step 2: The passing score for written exams needs to be raised to 90%.
>
> Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
> Step 4: Make the no-code license one year non-renewable.
>
> Step 5: Cancel your league membership until they decide to work
> to improve things.
>
> Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
>
> Step 7: Turn in rule breakers to the FCC.
>

MMM ... you forgot Item 8: as part of all amateur radio license exams,
examinees must demonstrate the ability to solve the differential equations
from which impedance formulae and the like are derived!

Mike Freeman < K 7 U I J >
"All men tend to become that which they oppose." - Laurence van der Post

2915. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 20:31:34 UTC
From: Mike Freeman <mikef@pacifier.com>
Message-ID: <Pine.BSO.4.33.0211211229200.2335-100000@shell.pacifier.com>
Source record: 131004
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

On 20 Nov 2002 Moparholic@hotmailnospam.com wrote:

> rettysnitch@ugerumf.com (Wouff Hong) wrote:
> > Step 1: No more automatic renewals. Individuals must retest and
> > pass all elements required for their license class.
> >
> > Step 2: The passing score for written exams needs to be raised to 90%.
> >
> > Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.
> >
> > Step 4: Make the no-code license one year non-renewable.
> >
> > Step 5: Cancel your league membership until they decide to work
> > to improve things.
> >
> > Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
> >
> > Step 7: Turn in rule breakers to the FCC.
> >
> Step 8: don't cross post stink bait to 5 groups.
>
Step 9. use correct grammar -- League is singular; hence, it's an "it" --
not a "they"!

I see a troll a-risin'!

Mike Freeman < K 7 U I J >
"All men tend to become that which they oppose." - Laurence van der Post

2916. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 20:47:44 UTC
From: K&#65533;HB <KAYZEROHANDSOMEBOY@ELECTRICSMOKE.NET>
Message-ID: <QDbD9.2723$It3.242582@newsread2.prod.itd.earthlink.net>
Source record: 131005
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

"Peter Lampione" <plampione@yahoo.com> wrote

: Oh I am quite willing to learn things in general!
: But the point is, there are so many things to learn,
: and I prefer to learn useful things to useless ones.
: I'd rather spend time learning more about DSP, that can
: be useful to me to post-process radio signals, than code,
: that I am likely to never use.

Peter,

That's great news. You should know that you can get involved hip-deep in amateur radio, including DSP (pre- and post-process) without learning a single dit of Morse code. Just take the written exam, Element 2, and you'll be licensed to experiment on literally many GHz of really prime spectrum.

We'll be looking for you to join us soon. I'll bet you can teach us a thing or two.

73, de Hans, K0HB
--
Help support youth involved in Amateur Radio.
http://www.mnyarc.org
http://www.k0bsa.org

2917. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 21:02:41 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <MKbD9.657$pc.135424@news.iquest.net>
Source record: 131006
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Dick Carroll" <dixie@townsqr.com> wrote in message news:arjabb$sk7$0@208.206.142.104...
>
>
> "John S. Dyson" wrote:
> >
> > "Fred Hambrecht Sr." <w4jle@charter.net> wrote in message
news:utorvc8qashpff@corp.supernews.com...
> > > Great gobs of bovine excrement, the license is simply insufficient
> > > motivation for you to learn code.
> > >
> > The amazing thing is the dumbing down of ham radio (but the rigs are beautiful
> > nowadays aren't they?)
>
>
> Isn't it a real paradox? The smarter and more beautiful the radios, the
> dumber the hams who use them! :-)
>
> Ham radio is now almost an endorsement on CB, rather
> > than having to REALLY know (not just remember) something appropriate for
> > the current world.
>
>
> I certainly have no problem agreeing with this, although it really has
> little or nothing to do with Morse code on ham radio. You can always use
> a keyboard to send if you can't physically handle a manual key or
> paddle. I may go to one of those due to arthiritis myself one of those
> days. But a computer program does a really poor job of copying, as far
> as any I;ve been able to evaluate shows. That will probably change if
> some of you more computer literate souls choose to keep working on it.
> Looks like you'd rather just dump the whole mode. That I don't
> understand.
>
Let me explain: it is an unnecessary and anachronistic barrier to entry. Frankly,
'the code' was really a prominent mode of operation at one time, but now it is
mostly a barrier to entry. It is MUCH MORE useful to center ham radio on
creative endeavors (which can also include working long distance in poor
conditions with code.) I am NOT anti-code, but I am anti-code exclusivity.

There really needs to be a basic ham license w/o code. To work at all in the
'code' bands, you'll need to pass the code test (similar to the good old reserved
bands for extra.) To be able to work anything but phone in limited bands,
you'll need the higher technical endorsements. So, there would be the
basic general ham license, which only provides limited communicator 2M,3/4M band

permissions. After that, for the real traditional 'u build it' ham stuff, then your technical endorsement would give you access to all but the code bands. There might even be multiple levels of technical endorsement (e.g. HF, UHF.) For the code bands, there would be the <10wpm bands and the >10wpm bands (or even finer grain.)

For example, more often, a ham radio operator SHOULD be able to grab a $2 PHEMT, create a simple board (with VERY FEW components) and have his/her 1dB NF 2M or 1.2GHz preamp. Nowadays, the poor schmuck will be spending $120 (or so) for some boutique preamp with 'magic parts or things' in it. (Well, 1dB NF would be a little tricky, even with a .2dB NF PHEMT, but you get my idea!!!)

Here in the US, technology is moving offshore, and even for strategic reasons, helping to motivate technology hobbies other than computer geekdom would be a VERY GOOD THING.

I'd much rather live in a world where ham operators can experiment with new or forward looking modulation schemes (sometimes with DSP), rather than only plan for a post-WWIII world, where there are a few radio sets and morse code is the only economical way to communicate.

The Morse requirement advocates seem to be approaching the fringe status of those who had stocked up their food for the YR2000 'issues'. I am NOT against Morse code, but against the prequisite for significant ham radio operation. The Ham community does have ALOT of morse operators, but TOO TOO FEW individuals who build their rigs (even significant parts of them.)

There are some cases (like you) that have the code and technology, but that isn't wrong. You would have both the code band endorsement and the experimental band endorsements!!!

John

2918. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 21:18:29 UTC
From: K&#65533;HB <k&#65533;hb@arrl.org>
Message-ID: <F4cD9.2753$lt3.246151@newsread2.prod.itd.earthlink.net>
Source record: 131007
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"John S. Dyson" <dyson@iquest.net> wrote

:
: I'd much rather live in a world where ham operators can experiment with
new
: or forward looking modulation schemes (sometimes with DSP), rather than
: only plan for a post-WWIII world, where there are a few radio sets and
: morse code is the only economical way to communicate.
:

We've got great news for you, John!

You can live in that world TODAY without studying even a single dit of Morse code! Just hustle on down to your next local VE examination session and tell them you want to take Element 2 of the exam. Within days you'll be licensed to tinker and experiment on literally GHz of prime spectrum with DSP, spread spectrum, or whatever other modulation scheme strikes your fancy. While you're at it, join AMRAD, TAPR, and AMSAT and participate in any of their dozens of digital and space-borne technology projects.

http://www.amrad.org
http://www.tapr.org
http://www.amsat.org

We're looking forward to your joining us.

&#65533;&#65533;&#65533; 73, de Hans, K0HB
--
Help support youth involved in Amateur Radio.
http://www.mnyarc.org
http://www.k0bsa.org

2919. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 21:47:34 UTC
From: N2EY@AOL.COM
Message-ID: <c2356669.0211211347.67e1c420@posting.google.com>
Source record: 131008
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

<paulfriedman@attbi.com> wrote in message news:<Ml6D9.91851$NH2.6246@sccrnsc01>...
> Jim:
>
> Not to complain <grin>, but you skipped my favorite part.
>
> In Step 5 you are supposed to cancel your ARRL membership. Then, in Step 6
> you are supposed to complain to the organization from which you just
> resigned and in which you now have no standing. I think we need a step 8:
> LCT at 2IAO (Logical Consistency Test at 2 Ideas at Once level.)

HAW! That's absolutely correct! What's more, by leaving the
organization, its influence with the FCC (who is actually in charge of
making any and all of the proposed changes) is reduced.

Even the Bulgarian judges shake their heads in disgust over the poor
quality of the troll.

73 de Jim, N2EY

2920. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 21:57:09 UTC
From: N2EY@AOL.COM
Message-ID: <c2356669.0211211357.4e09cdd5@posting.google.com>
Source record: 131009
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Brian Denley" <bdenley@attbi.com> wrote in message
news:<haYC9.96167$QZ.14825@sccrnsc02>...
> Why not just drop the archaic code requirement,

FCC's hands are tied on that one. The ITU treaty requires code tests
for an HF ham license. FCC isn't going to violate the treaty - they
said so in their Report and Order. If/when the treaty changes, FCC
will most probably eliminate Element 1 - but not until then.

Meanwhile, FCC has already reduced code testing to the barest minimum
that they think meets the treaty requirement - 5 wpm. Is learning
enough Morse code to pass the current 5 wpm code test really so
difficult?

> beef up the theory
> requirements

How? What, exactly, would you change?

Many of those who commented on the recent restructuring offered
practical ways for the FCC to "beef up" the theory requirements for
the higher-class licenses. In response, FCC reduced both the number of
tests and the total number of questions for each license class.

> and get hundreds of new, excited members tomorrow?

We're getting thousands of new, excited hams each year right now. The
number of licensed hams in the USA has reached an all-time high.

> That'll be
> the biggest shot in the arm the hobby has seen in decades.

If it isn't, will you support going back to the old ways?

73 de Jim, N2EY

2921. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 22:15:10 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <JOcD9.659$pc.135886@news.iquest.net>
Source record: 131010
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Kï¿½HB" <kï¿½hb@arrl.org> wrote in message
news:F4cD9.2753$It3.246151@newsread2.prod.itd.earthlink.net...
> "John S. Dyson" <dyson@iquest.net> wrote
>
> :
> : I'd much rather live in a world where ham operators can experiment with
> new
> : or forward looking modulation schemes (sometimes with DSP), rather than
> : only plan for a post-WWIII world, where there are a few radio sets and
> : morse code is the only economical way to communicate.
> :
>
> We've got great news for you, John!
>
> You can live in that world TODAY without studying even a single dit of Morse
> code! Just hustle on down to your next local VE examination session and
> tell them you want to take Element 2 of the exam.
>
(I'll be reviewing the links, perhaps to bring my viewpoint up to date, and
reconsider restarting my hobby from 25yrs ago.)

Apparently, the world has changed indeed since I had my ham radio license. I
got mine (the old tech license) a few months before my First phone just to see
what FCC tests were like. I also played around, but it was before the most
interesting stuff that makes UHF on up really cool nowadays.

When I did take the tests (both the tech class and first phone) in approx 1971,
I was VERY disappointed as to the lack of technological depth (even as a
Soph highschooler) required.

In a way, we reap what we sew, and the lack of technical requirements has
further enabled a general movement towards a dominant communicator-only class
of hams. I am VERY happy to see that some of the code prerequisites have
been lifted, and I will certainly follow your links after this post. I'd also like to
see alot of very broad ham interest, that isn't dominated by communicator
type stuff, but also include more technology than currently today. Technology
MUST NOT dominate ham radio, because it is easy to overshadow the
purpose of communication. When communication almost fully dominates the
hobby, esp archaic modes, then technology might be getting too much of
a back-seat.

I'd certainly be willing to advocate a license class for ham radio operators that
would ALMOST make that endorsement into an indicator of some technical competency.
With any significant motivation of the level needed to learn code at 13wpm or

even 5wpm, the newbie ham could almost become a naiscent EE*... (*Well, maybe that is a little optimistic, but not too far off.) Perhaps I'd be more accurate to claim that a person could at least understand the terminology and the issues of design, building, testing and even computer interface. This would provide the toolset that would allow the more motivated individuals to continue on with some self-schooling.

It is probably fairly clear that my own interests are of a technical nature (both EE and software (OS, DSP).) All of my ham hobby interest was based upon the technical and innovation side, but that had seemed to be too de-emphasized.

I'll definitely give the ham stuff a look-see again. My own interest, being technical, would also include helping people who want/need to learn how the stuff really works :-). I am also NOT INTERESTED in taking anything away from ham radio -- code is good, but almost complete understanding and significant (not necessarily complete) technical self-sufficiency is also good.

John

2922. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 22:17:30 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <UQcD9.660$pc.135900@news.iquest.net>
Source record: 131011
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"N2EY" <N2EY@AOL.COM> wrote in message
news:c2356669.0211211357.4e09cdd5@posting.google.com...
>
> We're getting thousands of new, excited hams each year right now. The
> number of licensed hams in the USA has reached an all-time high.
>
I am VERY HAPPY and encouraged about this. I happen to see ham radio as
a potentially great hobby (and important in my past), but also a wonderful
strategic asset from both the historically too-deemphasized technical training
ground and also the operational (emergency and communications) aspects.

John

2923. Re: Compact Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 22:25:37 UTC
From: nospam <xxxmmxxx@xxxspiritone.com>
Message-ID: <3DDD5D60.A7D34101@xxxspiritone.com>
Source record: 131014

I think a hexbeam would work as well as the TH2.

Tarmo Tammaru wrote:

> Hank,
>
> In the long run, I don't think you will be happy with any of these. If you
> don't want to put up a full size beam, I would investigate two element
> tribanders like the Hygain TH2. This thing has a 6 foot boom, but 27 foot
> elements. If you can get it at least 35 feet in the air, you would be able
> to routinely work anywhere in the world with it. I have the TH3, and it
> covers all of 15 and 20 meters with an SWR less than 2:1, and all of 10
> meters except about the top 50 KHz. Resonant SWR is about 1.2. I think the
> difference in gain between a 2 element and 3 element beam is only about 2DB
>
> Tam/WB2TT
> "Schwalenstocker" <w2rxl@arrl.net> wrote in message
> news:3DDCC74E.5090507@arrl.net...
> > I am looking for a compact, light beam antenna for the HF
> > bands, 20 thru
> > 10 meters.
> > Am undecided between the Butternut Butterfly and the T.G.M.
> > MQ-1.
> > I would like to hear any comments from users of either of
> > these or any
> > suggestions.
> > Hank, W2RXL
> >

2924. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 22:31:45 UTC
From: brianburke@juno.com
Message-ID: <f45722ac.0211211431.6e32c922@posting.google.com>
Source record: 131012
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

rettysnitch@ugerumf.com (Wouff Hong) wrote in message
news:<arrl.doesnt.care.anymore@all.com>...
> Step 1: No more automatic renewals. Individuals must retest and
> pass all elements required for their license class.
>
> Step 2: The passing score for written exams needs to be raised to 90%.
>
> Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
> Step 4: Make the no-code license one year non-renewable.
>
> Step 5: Cancel your league membership until they decide to work
> to improve things.
>
> Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
>
> Step 7: Turn in rule breakers to the FCC.
>
>
> 73, de Wouff Hong

Wouffgang Larry, I don't see anything in there about White Supremacy
so maybe you're almost legitimate.

1. No Automatic Renewals - Agreed. We need to keep this economy
rolling one test fee at a time.
2. passing score 90% - Make it 100%. If Bruce Without Error can do
it, anyone should be able to do it. Some may have to study, though.
3. Code elements 13 wpm for General, 20 wpm for Extra. We've had 160
years to perfect the code. Lets at least get it up to the speed of a
greasy smelly dinasaur tty - 55wpm.
4. Make no-code license one year non-renewable. I've been told that
anyone can learn code in a matter of weeks. Make the NCT 6 weeks
non-renewable.
5. Cancel your league membership until they improve things - That's
been tried - just cancel it.
6. Complain to the ARRL when-ever you hear an idiot on the air, and
Complain to Al Gore when you see one on rrap (cc: Al Gore).
7. Turn in rule breakers to the FCC - Cuffed and stuffed? or just
send in their call sign?

2925. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 22:33:52 UTC
From: brianburke@juno.com
Message-ID: <f45722ac.0211211433.62c1c594@posting.google.com>
Source record: 131013
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

N2EY@AOL.COM (N2EY) wrote in message
news:<c2356669.0211210512.180146a6@posting.google.com>...
> rettysnitch@ugerumf.com (Wouff Hong) wrote in message
news:<arrl.doesnt.care.anymore@all.com>...

> > Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
> Again, no problem. But how are you going to convince FCC? What new
> argument will change their minds after they have been gradually
> phasing out code testing for the past 20 years?

Typo or did you really mean 20 years?

2926. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 23:06:14 UTC
From: brianburke@juno.com
Message-ID: <f45722ac.0211211506.6fc9ea1@posting.google.com>
Source record: 131015
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Dick Carroll <dixie@townsqr.com> wrote in message news:<arjabb$sk7$0@208.206.142.104>...

> I do understand why some people don't like th emode, and I
> can appreciate that. There are things I don't like, too. I have no great
> love for Morse code(despite the rantings of some of the more rabid
> anticoders who post here), but I learned to respect it for what it is
> and appreciate it for what it offers-the most basic, simple, easily
> implemented mode of radiocommunications yet devised.

Dick, you got a fever, man? I've not once read anything like that
from you. Not once! But I accept that as an earnest remark.

And in the "easily implemented" remark, it may be easily implemented
if you've been -trained- in the USE of Morse Code, but just learning
the code characters and passing an exam doesn't make it easily
implemented. You have to use it. And to use it you've got to have
people out there not only willing to put up with every little mistake
you make, but to actually be there and work through it. Listening to
W1AW and code tapes may make one an Extra, but it doesn't make one a
CW op. Meanwhile, 160 years after the invention of morse code,
novices are segregated to spaces and places where few are willing to
go.

> Does that mean I or any other CW supporter would in any way advocate
> use of CW -at any time- to the exclusion of better more efficient modes?
> Of course not, again despite the rumblings of some anticoders posting
> here. I, and most other code supporters, routinely use advanced digital
> modes, some of us use them more than CW. Again, that does nothing
> whatever to diminish the qualities of Morse code. Some of us understand
> the mode well enough to consider it to be a valuable asset to ham radio.
> If you don't, that's certainly your privilege.

IMO, someone skilled in code needs to be on the Novice bands providing
the understanding that is required to get the next guy going with CW.
You've been a ham since Jesus was a Corporal. Make it your legacy.

> Dick

73, Brian

2927. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 23:06:21 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211211506.7e1a479d@posting.google.com>
Source record: 131016

richardharrison@webtv.net (Richard Harrison) wrote in message news:<3012-3DDD352A-263@storefull-2317.public.lawson.webtv.net>...
> Art, KB9MZ wrote:
> "What has the "shortest" path got to do with it?"
>
> The shortest surface path is the path of least r-f resistance and
> impedance.
>
> Best regards, Richard Harrison, KB5WZI

Richard for some reason my Google only updates twice a day,
so there are many additions before I read my own post!
Anyway I understand that Roy said re the 'shortest' path but for
me that was just an assumption, that the shortest path was
also the best impedance match ! Is this really the case ?
Are not the impedances different inside a tube compared to the
outside? Maybe I am seeing too much in the problem.
Regards
Art

2928. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 23:17:15 UTC
From: Brian Denley <bdenley@attbi.com>
Message-ID: <_PdD9.76228$WL3.33033@rwcrnsc54>
Source record: 131018
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

It already is CB with 100 watts. Have you ever listening to 75 meters?

--
Brian Denley
http://home.attbi.com/~bdenley/index.html

"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message
news:3ddcbfc0$0$181$ba620e4c@news.skynet.be...
> | In today's
> | "instant gratification" mindset world, many people want every thing
"now"
> | and don't want to expend any personal effort to get it. That's why the
> code
> | element is constantly being complained about by so many...
>
> We have the same on this side of the pond. How to avoid that
radioamateurism
> becomes CB with 100 watts?
>
> 73 de ON5MJ - Jacques
>
>
>
>

2929. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 23:21:08 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211211521.6d8d746@posting.google.com>
Source record: 130869

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<arje3i$4hd$1@knossos.btinternet.com>...
> NOW AVAILABLE ** New Program STUMATCH.exe"
>
> This program assists with the design of stub-line transformers used for such
> purposes as matching the feedpoint impedance of radio antennas to the Zo
> impedance of the transmission line from the transmitter. The program is
> applicable to both balanced-pair and coaxial lines. These and similar types
> of transmission line transformers have traditionally been designed with the
> aid of Smith Charts. The superiority of this program in respect of time,
> operating simplicity, accuracy and user appreciation is clearly seen.
>
> Download STUMATCH from website below.
> ---
> ==========================
> Regards from Reg G4FGQ
> For Free Radio Design Software
> Go to http://www.g4fgq.com
> ==========================

Reg may I ask a question regarding the word "stub"
for instance I have added a similar thing to what is
known as a "stub" in the center of a dipole purely to
make a phase change the feed still being made
delta fashion. Are both being called :"stubs"
acceptable within the realms of ham radio, if not what
would be the correct description for a "stub" that is
not terminated at a feed point?

2930. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 23:23:31 UTC
From: Brian Denley <bdenley@attbi.com>
Message-ID: <TVdD9.76246$WL3.32982@rwcrnsc54>
Source record: 130870
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

I agree with Peter. As an EE, I would pass that test right now. As I have said before, we don't demand that every computer user learn 2s complement math (or even DOS) prior to allowing them to use windows, linux, etc. The very idea sounds rediculous to us. The CW requirement is no different. Just my 2 cents.

--
Brian Denley
http://home.attbi.com/~bdenley/index.html
"Peter Lampione" <plampione@yahoo.com> wrote in message
news:b30faff8.0211202034.1cf442eb@posting.google.com...
> I would suggest somethig rather different.
>
> Take out the code requirement, and put in the test some DSP questions
> (how to make filters, equalize volume, remove noise, and modulate in
> phase, frequency, quadrature, etc) as well as more advanced circuit
> design.

2931. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 23:24:47 UTC
From: paulfriedman@attbi.com
Message-ID: <3XdD9.101461$QZ.16486@sccrnsc02>
Source record: 130871
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Brian:

You are wrong, you know. 75m is CB with 3000 (sic) watts.

Paul ab0si

"Brian Denley" <bdenley@attbi.com> wrote in message
news:_PdD9.76228$WL3.33033@rwcrnsc54...
> It already is CB with 100 watts. Have you ever listening to 75 meters?
>
> --
> Brian Denley
> http://home.attbi.com/~bdenley/index.html
>
> "ON5MJ" <on5mjREMOVE@skynet.be> wrote in message
> news:3ddcbfc0$0$181$ba620e4c@news.skynet.be...
> > | In today's
> > | "instant gratification" mindset world, many people want every thing
> "now"
> > | and don't want to expend any personal effort to get it. That's why the
> > code
> > | element is constantly being complained about by so many...
> >
> > We have the same on this side of the pond. How to avoid that
> radioamateurism
> > becomes CB with 100 watts?
> >
> > 73 de ON5MJ - Jacques
> >
> >
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>
>

2932. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-21 23:52:57 UTC
From: W6DKN <w6dkn-nospam-@qsl.net>
Message-ID: <seeD9.2816$EY.2613@fe01>
Source record: 130876
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"John S. Dyson" <dyson@iquest.net> wrote in message
news:MKbD9.657$pc.135424@news.iquest.net...

> <<< SNIP >>>
> There really needs to be a basic ham license w/o code.

There already is - it's called a No-Code Tech.

> <<< SNIP >>>
> To work at all in the
> 'code' bands, you'll need to pass the code test (similar to the good old
reserved
> bands for extra

Let's just keep it simple. To work any band / mode below 30 mhz. you need a
higher class license (oops, that's how it is now... :>)

73 de W6DKN

2933. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 00:10:56 UTC
From: cheesecutter@webhideout.com
Message-ID: <fef386d5.0211211610.2654ad2f@posting.google.com>
Source record: 130877
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

plampione@yahoo.com (Peter Lampione) wrote in message
news:<b30faff8.0211211159.57a762c3@posting.google.com>...
> Oh I am quite willing to learn things in general!
> But the point is, there are so many things to learn,
> and I prefer to learn useful things to useless ones.
> I'd rather spend time learning more about DSP, that can
> be useful to me to post-process radio signals, than code,
> that I am likely to never use.
>
> And another poster commented that I simply not motivated enough
> by amateur radio to learn code.
> True, by definition.
> I sometimes listen to what hams talk about; 95% of the time
> they talk about their radio setup.
> The idea of having to learn code, get a licence, and build an
> antenna, to be able to talk about my radio on the air
> is ... uh ... less than overwhelmingly enticing.
>
> I predict that, with all the new technologies available now
> (cellphones, internet, computers, etc etc), amateur radio will
> simply die out for lack of interest; the ARRL and others are
> doing a pityful job of getting the newer generations involved.
> Too bad, because some things going on with packet radio,
> computers, routing etc are incredibly cool.
>
> They keep up this old-fashioned requirements, and they don't
> realise that, as the younger people are turned off,
> their radios will also eventually be turned off, when FCC
> reclaims the frequencies.
> They see the refusal of somebody to learn code as that person's
> problem, and they don't realise that the lack of membership will
> soon be their problem.
>
> Sooner or later the FCC is going to reclaim those frequencies
> due to lack of interest, and nobody in the US consituency will care,
> except the 0.0001% of the population - hardly a political constituency.
> Come on - listen to the actual _content_ of ham conversations:
> if SW bandwidth ever becomes valuable, I don't think ARRL has a chance
> to argue that there is something worthy going on there.
> And the original purpose, to spread the knowledge of radio technology,
> is moot now - with so many other important technologies, why would
> one worry so much about radio?
>

> Many hams are now in their 50s. I predict that by the time they are
> dead, in about 25 years, amateur radio will also be dead, reduced to
> a small number of frequencies used for emergency communication.
> All the rest will be commercial bandwidth.
>
> Peter
>
> N8KDV <n8kdv@iserv.net> wrote in message news:<3DDC6876.D4B96733@iserv.net>...
> > Typical comments by someone who is simply to lazy to learn. We've heard it all before.
> >
> > Peter Lampione wrote:
> >
> > > I would suggest somethig rather different.
> > >
> > > Take out the code requirement, and put in the test some DSP questions
> > > (how to make filters, equalize volume, remove noise, and modulate in
> > > phase, frequency, quadrature, etc) as well as more advanced circuit
> > > design.
> > >
> > > The code requirement is just silly.
> > > Code is just one of the many ways to encode a signal, a way that
> > > happens to be possible to do by hand. But why bother with it?
> > > That it is useful in emergencies is a ridiculous thing - if your
> > > transceiver works, you might as well talk into it, so also general
> > > SWL, and not only hams, can understand your transmission.
> > > Instead, with the increased ease with which signals are digitized,
> > > DSP should really be required knowledge.
> > > I mean, it takes so little nowadays to feed the signal into an audio
> > > board
> > > or better A/D converter, and then start doing things digitally...
> > >
> > > In fact, consider this: DSP should be required because, in case of
> > > emergency, you hook up your PC/laptop audio board to the radio, and
> > > there you go,
> > > modulating any way you want...
> > >
> > > Code is what keeps me getting a ham licence.
> > > I just don't suffer fools gladly, and the code requirement is foolish.
> > > If I want to waste time, there are many more pleasant ways to do it.
> > >
> > > Cheers!
> > >
> > > Peter
> > >
> > > Oh and one more thing: I think it is incredibly funny that in a
> > > country where you can get a driver's licence without knowing how to
> > > operate a stick shift, you cannot operate ham without knowing code.
> > >
> > > There, now flame me.
> > >

> > > rettysnitch@ugerumf.com (Wouff Hong) wrote in message
news:<arrl.doesnt.care.anymore@all.com>...
> > > > Step 1: No more automatic renewals. Individuals must retest and
> > > > pass all elements required for their license class.
> > > >
> > > > Step 2: The passing score for written exams needs to be raised to 90%.
> > > >
> > > > Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.
> > > >
> > > > Step 4: Make the no-code license one year non-renewable.
> > > >
> > > > Step 5: Cancel your league membership until they decide to work
> > > > to improve things.
> > > >
> > > > Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
> > > >
> > > > Step 7: Turn in rule breakers to the FCC.
> > > >
> > > >
> > > > 73, de Wouff Hong

peter.......i can see that you are in need of a mind control
transplant....please report to the nearest positive thinking building
for your yearly mind control insert battery checkup......this is just
not good ..talking to hammies like that.......shame for
shame..............

2934. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 00:14:57 UTC
From: "Dee D. Flint" <dee.hays@sbcglobal.net>
Message-ID: <5GeD9.2352$4j5.1258585@newssvr28.news.prodigy.com>
Source record: 131017
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Peter Lampione" <plampione@yahoo.com> wrote in message
news:b30faff8.0211202034.1cf442eb@posting.google.com...
> I would suggest somethig rather different.
>
> Take out the code requirement, and put in the test some DSP questions
> (how to make filters, equalize volume, remove noise, and modulate in
> phase, frequency, quadrature, etc) as well as more advanced circuit
> design.

Add the DSP yes, take out code not.

>
> The code requirement is just silly.
> Code is just one of the many ways to encode a signal, a way that
> happens to be possible to do by hand. But why bother with it?
> That it is useful in emergencies is a ridiculous thing - if your
> transceiver works, you might as well talk into it, so also general
> SWL, and not only hams, can understand your transmission.

Several times every year, shortwave conditions are poor enough that voice
transmissions are unitelligible. If you don't have a computer to work the
other digital modes, the only possibility left is CW.

> Instead, with the increased ease with which signals are digitized,
> DSP should really be required knowledge.
> I mean, it takes so little nowadays to feed the signal into an audio
> board
> or better A/D converter, and then start doing things digitally...
>
> In fact, consider this: DSP should be required because, in case of
> emergency, you hook up your PC/laptop audio board to the radio, and
> there you go,
> modulating any way you want...

You aren't always going to have a computer available. I know when I go
traveling, I sometimes take my radio but not my computer.

>
> Code is what keeps me getting a ham licence.
> I just don't suffer fools gladly, and the code requirement is foolish.
> If I want to waste time, there are many more pleasant ways to do it.
>
> Cheers!
>
> Peter

>
> Oh and one more thing: I think it is incredibly funny that in a
> country where you can get a driver's licence without knowing how to
> operate a stick shift, you cannot operate ham without knowing code.
>
> There, now flame me.

There's no reason to flame anyone. It is a difference of opinion that should be calmly debated.

Dee Flint, N8UZE

2935. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 00:25:23 UTC
From: "Dee D. Flint" <dee.hays@sbcglobal.net>
Message-ID: <TPeD9.2353$4j5.1259478@newssvr28.news.prodigy.com>
Source record: 130872

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:3013-3DDD086F-79@storefull-2317.public.lawson.webtv.net...
> Nomen Nescio wrote:
> As a disaster service, amateur radio has forever lost clout because of
> cell phones and plenty of well equipped media.
>
>

Didn't read up on the World Trade Center disaster support did you. All other communication services were so overloaded that it took 1/2 hour or more to get through using the conventional services. Over 300 hams gave over 5000 hours of communications support and it was indeed needed.

Dee Flint, N8UZE

2936. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 00:29:34 UTC
From: "Dee D. Flint" <dee.hays@sbcglobal.net>
Message-ID: <OTeD9.2355$4j5.1260102@newssvr28.news.prodigy.com>
Source record: 130873
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Dick Carroll" <dixie@townsqr.com> wrote in message
news:arjabb$sk7$0@208.206.142.104...
>
>
> [snip]
> Looks like you'd rather just dump the whole mode. That I don't
> understand. I do understand why some people don't like th emode, and I
> can appreciate that. There are things I don't like, too. I have no great
> love for Morse code(despite the rantings of some of the more rabid
> anticoders who post here), but I learned to respect it for what it is
> and appreciate it for what it offers-the most basic, simple, easily
> implemented mode of radiocommunications yet devised.
>
> Does that mean I or any other CW supporter would in any way advocate
> use of CW -at any time- to the exclusion of better more efficient modes?
> Of course not, again despite the rumblings of some anticoders posting
> here. I, and most other code supporters, routinely use advanced digital
> modes, some of us use them more than CW. Again, that does nothing
> whatever to diminish the qualities of Morse code. Some of us understand
> the mode well enough to consider it to be a valuable asset to ham radio.
> If you don't, that's certainly your privilege.

Wonderfully put.

Dee Flint, N8UZE

2937. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 00:34:12 UTC
From: "Dee D. Flint" <dee.hays@sbcglobal.net>
Message-ID: <8YeD9.2356$4j5.1260780@newssvr28.news.prodigy.com>
Source record: 130874
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

"Peter Lampione" <plampione@yahoo.com> wrote in message
news:b30faff8.0211211159.57a762c3@posting.google.com...
> Oh I am quite willing to learn things in general!
> But the point is, there are so many things to learn,
> and I prefer to learn useful things to useless ones.
> I'd rather spend time learning more about DSP, that can
> be useful to me to post-process radio signals, than code,
> that I am likely to never use.

Actually learning all about DSP is useless as it's built into the radio and
I don't have to do anything.

>
> And another poster commented that I simply not motivated enough
> by amateur radio to learn code.
> True, by definition.
> I sometimes listen to what hams talk about; 95% of the time
> they talk about their radio setup.
> The idea of having to learn code, get a licence, and build an
> antenna, to be able to talk about my radio on the air
> is ... uh ... less than overwhelmingly enticing.

There is much more variety in the conversations on CW than I've typically
heard on voice. The range of topics is amazing. I communicated with
retired teachers, "talked" about eBay, etc.

Dee Flint, N8UZE

2938. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 00:41:17 UTC
From: "Dee D. Flint" <dee.hays@sbcglobal.net>
Message-ID: <N2fD9.2358$4j5.1261721@newssvr28.news.prodigy.com>
Source record: 130875
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"John S. Dyson" <dyson@iquest.net> wrote in message
news:MKbD9.657$pc.135424@news.iquest.net...
>
>
> There really needs to be a basic ham license w/o code. To work at all in
the
> 'code' bands, you'll need to pass the code test (similar to the good old
reserved
> bands for extra.) To be able to work anything but phone in limited
bands,
> you'll need the higher technical endorsements. So, there would be the
> basic general ham license, which only provides limited communicator
2M,3/4M band
> permissions. After that, for the real traditional 'u build it' ham
stuff, then
> your technical endorsement would give you access to all but the code
bands.
> There might even be multiple levels of technical endorsement (e.g. HF,
UHF.)
> For the code bands, there would be the <10wpm bands and the >10wpm
> bands (or even finer grain.)

There is a basic ham license without code. It's called Technician. They
have all privileges on all ham segments above 30 megahertz. There are some
fine individuals doing great work in that realm. And some are even using
the 6m and 2m code band segments to work on their code so that they can pass
it to get on the HF bands.

Actually if you limit them to phone only until they learn higher
endorsements, too many will simply stay there. Allowing phone privileges
should be the treat that they get after proving themselves competent in
other areas of ham radio.

Dee Flint, N8UZE

2939. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 00:46:45 UTC
From: dplatt@radagast.org
Message-ID: <utqvjl2fabpdfe@corp.supernews.com>
Source record: 130879

>> As a disaster service, amateur radio has forever lost clout because of
>> cell phones and plenty of well equipped media.

>Didn't read up on the World Trade Center disaster support did you. All
>other communication services were so overloaded that it took 1/2 hour or
>more to get through using the conventional services. Over 300 hams gave
>over 5000 hours of communications support and it was indeed needed.

An amateur from San Francisco, who was in NYC that day and ended up acting as shift supervisor on amateur comms for about a week, commented at a talk he did: "You know all those pictures you saw of people running away from the disaster, talking on their cellphones? They weren't talking. They were listening to busy signals."

In a more modest (but still applicable) example: the Croy fire, in the Santa Cruz hills in California, just over two months ago. There were a lot of firefighters, forestry-service folks, Red Cross workers, etc. up in the hills, in areas where none of the conventional comm services would work reliably or at all... no cellphone coverage, fire radios out of range, etc. The amateurs from the local city and county RACES groups were still "up and operating", passing traffic both simplex and through local repeaters, when nobody else could get through.

I fully expect the same thing to happen when (not "if") the next big earthquake hits here in the San Francisco Bay area. I'm told that almost all of the local cellphone service depends on a limited number of landline trunks and coordination links which run between here and Los Banos... right across the Hayward fault. If that fault is the one which cuts loose, the landlines are gonna go down, and the individual cellphone towers will go off-line. Even if it's a different fault which shakes, the cellphone system is likely to overload and crash just as it did in New York City.

I'm equally concerned about those areas of the country which have switched their public-service radio systems over to centrally-coordinated "trunked" radios. They're convenient and flexible, but seem to me to be very vulnerable to single-point-of-failure problems. In these areas (and the SF bay area isn't yet one of them), the police and fire radio system could end up going off-line all at once if the coordination computers fail.

Amateur-radio systems have the advantage of being much less centralized than most official and commercial communications systems, and are thus somewhat less likely to be completely clobbered by any given disaster. The amateur traffic-handling capacity is not very large, but it's often robust enough to remain available when most

other systems have failed completely.

That's a big part of what spurred me to get my ticket, last spring,
after many years of procrastinating.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2940. Re: Compact Beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 01:12:52 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <owfD9.2366$4j5.1265324@newssvr28.news.prodigy.com>
Source record: 130878

One of the best small beams I have used in recent years was a 2el tribander
I made from the DE and Dir of a Cusshcraft A4. I didn't have room for the
whole thing once I moved, so I came up with the 2 el based on modelling I
did...and it worked great. Maybe CC makes a 2el version.
--
73,
Larry N8LP
www.telepostinc.com/n8lp.html

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:L8Sdnds2EsK2sECgXTWcqA@comcast.com...
> Hank,
>
> In the long run, I don't think you will be happy with any of these. If you
> don't want to put up a full size beam, I would investigate two element
> tribanders like the Hygain TH2. This thing has a 6 foot boom, but 27 foot
> elements. If you can get it at least 35 feet in the air, you would be able
> to routinely work anywhere in the world with it. I have the TH3, and it
> covers all of 15 and 20 meters with an SWR less than 2:1, and all of 10
> meters except about the top 50 KHz. Resonant SWR is about 1.2. I think the
> difference in gain between a 2 element and 3 element beam is only about
2DB
>
> Tam/WB2TT
> "Schwalenstocker" <w2rxl@arrl.net> wrote in message
> news:3DDCC74E.5090507@arrl.net...
> > I am looking for a compact, light beam antenna for the HF
> > bands, 20 thru
> > 10 meters.
> > Am undecided between the Butternut Butterfly and the T.G.M.
> > MQ-1.
> > I would like to hear any comments from users of either of
> > these or any
> > suggestions.
> > Hank, W2RXL
> >
>
>

2941. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 01:21:14 UTC
From: k7itm@aol.com
Message-ID: <3200347.0211211721.278deb16@posting.google.com>
Source record: 130880

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<arje3i$4hd$1@knossos.btinternet.com>...
> NOW AVAILABLE ** New Program STUMATCH.exe"
>
> This program assists with the design of stub-line transformers used for such
> purposes as matching the feedpoint impedance of radio antennas to the Zo
> impedance of the transmission line from the transmitter. The program is
> applicable to both balanced-pair and coaxial lines. These and similar types
> of transmission line transformers have traditionally been designed with the
> aid of Smith Charts. The superiority of this program in respect of time,
> operating simplicity, accuracy and user appreciation is clearly seen.

First, an honest thanks for yet another useful program, Reg.

However, it certainly won't replace other transmission line tools I
use, because it's really not very often I care about just matching an
impedance at a single frequency. I'm interested in a wide variety of
tasks, including matching at multiple frequencies, being able to use
lumped as well as transmission line components, being able to
understand (visualize) the degree of match over a band of frequencies,
and designing pass-reject filters. I'm sometimes also interested in
the effects of line loss, generally when the impedance ratio is high.
For my work, it's not so much a "vs" as you put in your subject line,
as it is another tool to join Smith and Gates and some others, each to
be chosen when appropriate.

Cheers,
Tom

2942. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 01:30:34 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ark1bp$9k2$1@helle.btinternet.com>
Source record: 130881

Art,
I didn't refer to any antenna literature when writing the program. The adjective 'stud' has been locked somewhere in my mind for about 58 years. I had a vague recollection it applied to short lengths of balanced-pair transmission lines, sometimes open and sometimes shorted at the end which was not connected to anything else. For the first time in my life, when writing the program, I was in the position of having to describe in words what the thing actually was. So I could do little else except assume the meaning of the word had not drifted during the last half-century or so.

I have also applied 'stub' to coax lines without giving it much consideration. lot of thought.

When I first saw your message I panicked at the thought I had somehow used the wrong word and that I should have to go back to square one, rewrite the source code, recompile the executable code, overwrite all 5 of the various backups, plus the 3 associated files in the website. I would then have to send messages to all newsgroups I had advertised in, apologising for the misery caused and asking everybody to download again. All unpaid for as usual.

I looked up the word 'stub' in my dictionary. It just gave a long list of things to which 'stub' could apply not one of which had anything to do with transmission lines.

Inspiration then flashed. I remembered somewhere around the house there was a past edition of the ARRL Antenna Book. After a few minutes search it appeared. There were 3 references in the index and several pages of where stub lines are used in transmission lines.

There was no reference to the gadget you describe as a 'stub'. I think you are at liberty to use 'stud' anywhere you like provided you make sure to define what you are talking about the first time you use it. A drawing? If it is not a transmission line but is in danger of being confused with one then change its name to something else. Call it a widget.

I think 'stub' can be applied to anything which is shorter than normal and perhaps ends abruptly. Like a smoked cigarette end. Or a stubby finger.

Reg.

==========

> Reg may I ask a question regarding the word "stub"
> for instance I have added a similar thing to what is
> known as a "stub" in the center of a dipole purely to

> make a phase change the feed still being made
> delta fashion. Are both being called :"stubs"
> acceptable within the realms of ham radio, if not what
> would be the correct description for a "stub" that is
> not terminated at a feed point?

2943. FA: Andrews Hardline Connectors, New

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 01:32:11 UTC
From: "Stephen C. Robbins" <srobbinsNoSPaMDUDES@netacc.net>
Message-ID: <3ddd88ff@news.netacc.net>
Source record: 130882

On ebay are a large assortment of Andrews Heliax connectors. Last days of auction.

See

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=802254531

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=802254531

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=802263102

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=802266145

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=802418800

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=802420698

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=802425733

Thanks for the bandwidth

Steve

WB3JVK

2944. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 01:32:54 UTC
From: gaschafer@attbi.com
Message-ID: <3ddd8965.2017460@netnews.attbi.com>
Source record: 130883

On Thu, 21 Nov 2002 11:30:49 -0600 (CST), richardharrison@webtv.net (Richard Harrison) wrote:

>Gary, K4FMX wrote:
>"Will rf current flow on the inside of the tubing as well as on the
>outside---?"
>
>Not as well because the outside is larger than the inside. Not only is
>there more surface outside but there is less inductance. See Terman`s
>1955 "Electronic and Radio Engineering" page 21.
>"It is to be noted that some of this flux exists within the conductor
>and therefore links with, i.e., encircles, current near the center of
>the conductor while not linking with current flowing near the surface.
>The result is that the inductance of the central part of the conductor
>is greater than the inductance of the part of the conductor near the
>surface---."
>
>This is so even in hollow conductors. The smaller the radius, the higher
>the inductance.
>
>Best regards, Richard Harrison, KB5WZI
>

Hi Richard,

I can understand the smaller radius of the inside of a tube having
less surface area and a higher
inductance than the outside. What I am wondering, is there any
benefit to leaving the end of the
tube open rather than closing (flattening) it when using it as a tank
coil. It would seem that
leaving it open would give a lower total effective resistance by
allowing rf to flow on the inside
as well as the outside. Giving the benefit of two surfaces rather than
one.

73
Gary K4FMX

2945. Info on RX noise bridge from Ham Radio Magazine

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 01:44:53 UTC
From: kiddi@marel.is
Message-ID: <b7cca008.0211211744.3c1ea1c3@posting.google.com>
Source record: 130884

Some years back I constructed an RX noise bridge from an article in Ham Radio Magazine. The article appeared probably sometime in the 1980's, but possibly even back in the late 70's.

Anyway, I need the schematic for this bridge to determine exactly how the R and C are connected into the bridge, as I just came across the unit from my junk box and would like to put it to good use. Does anyone have the schematic and/or any other info that may be relevant to this construction? This specific design was a little different from most others in that it did not use a toroid transformer to generate the balanced noise signal, but instead it used some kind of a transmission line arrangement - a section of twisted wires folded up inside the unit.

It looks like I have lost this article, so any info would be appreciated.

73 de TF3KX, Kristinn

2946. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 01:45:12 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDD8C28.89868170@ieee.org>
Source record: 130885
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

"Dee D. Flint" wrote:
> Actually learning all about DSP is useless as it's built into the radio and
> I don't have to do anything.

Learning CW is useless as it's built into my SCS PTC2e modem and I
don't have to do anything. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2947. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 01:54:12 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ark2o4hqj0@208.207.71.154>
Source record: 130886
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

"Kï¿½HB" wrote:
>
> We'll be looking for you to join us soon. I'll bet you can teach us a thing
> or two.
>

But first he's gotta learn a thing or two.

2948. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 01:54:40 UTC
From: Brian Denley <bdenley@attbi.com>
Message-ID: <A7gD9.74542$P31.39063@rwcrnsc53>
Source record: 130887
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Oops I spelled ridiculous wrong! Sorry

--
Brian Denley
http://home.attbi.com/~bdenley/index.html
"Brian Denley" <bdenley@attbi.com> wrote in message
news:TVdD9.76246$WL3.32982@rwcrnsc54...
The
> very idea sounds rediculous to us.

> --
> Brian Denley
> http://home.attbi.com/~bdenley/index.html

2949. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 02:04:33 UTC
From: richardharrison@webtv.net
Message-ID: <11506-3DDD90B1-252@storefull-2316.public.lawson.webtv.net>
Source record: 130888

Dave Platt wrote:
"---the police and fire radio system(s) could end up going off-line all at once if the coordination computers fail."

Few new systems are perfect. Improvements are likely to make them better. Satisfactory corrections are almost certain because area insurance rates are in part based on the independent communications capabilities of
its fire departments. Jurisdictions respond to the incentive of lowered insurance rates.

Any disaster is possible, but repetitions are less likely due to subsequent corrections.

The availability of ham radio backup is not taken into account in insurance rate determinations, as far as I know.

Best regards, Richard Harrison, KB5WZI

2950. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 02:26:34 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <ark4ko$8rg$1@slb3.atl.mindspring.net>
Source record: 130889

Reg:

Thanks for the new program.

I have been a user of stubs for matching HF wire antennas [usually open wire or window ladder line fed antennas] for years. In practice I have always "designed" them "in the air" so to speak, cutting them to length experimentally to get the match I needed and then keeping a few around with aligator clips on the ends which I often used to quickly change bands by simply clipping them across the open wire feeders at the appropriate point.

I have been wondering for a while, and I have asked Cecil about this on the NG, but didn't seem to get his interest, whether stubs might be used in an economical adjustable matching scheme similar to Cecil's adjustable length transmission line system.

In fact, some combination of Cecil's length adjusting scheme coupled with some adjustable length stubs with adjustable open or short circuit far ends might just be more economical and wide ranging than Cecil's current scheme.

Your program should enable someone [Cecil?] to study the possibilities for an adjustable stub "tuner eliminator" to compare with Cecil's famous adjustable length feeder scheme.

--
Peter K1PO
Indialantic By-the-Sea, FL

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message news:arje3i$4hd$1@knossos.btinternet.com...
> NOW AVAILABLE ** New Program STUMATCH.exe"
>
> This program assists with the design of stub-line transformers used for such
> purposes as matching the feedpoint impedance of radio antennas to the Zo
> impedance of the transmission line from the transmitter. The program is
> applicable to both balanced-pair and coaxial lines. These and similar types
> of transmission line transformers have traditionally been designed with the
> aid of Smith Charts. The superiority of this program in respect of time,
> operating simplicity, accuracy and user appreciation is clearly seen.

>
> Download STUMATCH from website below.
> ---
> ==========
> Regards from Reg G4FGQ
> For Free Radio Design Software
> Go to http://www.g4fgq.com
> ==========
>
>

2951. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 02:33:32 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ark51s$o9b$0@208.206.142.97>
Source record: 130890
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Dee D. Flint" wrote:
>
> "Dick Carroll" <dixie@townsqr.com> wrote in message
> news:arjabb$sk7$0@208.206.142.104...
> >
> >
> > [snip]
> > Looks like you'd rather just dump the whole mode. That I don't
> > understand. I do understand why some people don't like th emode, and I
> > can appreciate that. There are things I don't like, too. I have no great
> > love for Morse code(despite the rantings of some of the more rabid
> > anticoders who post here), but I learned to respect it for what it is
> > and appreciate it for what it offers-the most basic, simple, easily
> > implemented mode of radiocommunications yet devised.
> >
> > Does that mean I or any other CW supporter would in any way advocate
> > use of CW -at any time- to the exclusion of better more efficient modes?
> > Of course not, again despite the rumblings of some anticoders posting
> > here. I, and most other code supporters, routinely use advanced digital
> > modes, some of us use them more than CW. Again, that does nothing
> > whatever to diminish the qualities of Morse code. Some of us understand
> > the mode well enough to consider it to be a valuable asset to ham radio.
> > If you don't, that's certainly your privilege.
>
> Wonderfully put.
>

Thank you. Sometimes the give and take here distorts things way out of
all proper perspective.

Dick

> Dee Flint, N8UZE

2952. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 02:48:56 UTC
From: Kedrid <Kedrid@kedrid.com>
Message-ID: <ark5va$8dt$1@slb9.atl.mindspring.net>
Source record: 130891

I would say Art said it best, Electricity ALWAYS takes the path of least resistence.

That being the case, if its a wire w/ no other components (IE resistors, caps, coils, chokes.) Then the shortest wire would in theroy have the least resistance. Mostly because in any conducting element there is loss.. So the longer the wire, the greater the loss. In standard Coaxial cable that would be roughly 3db / 100' cable. This loss is also effected be the material of your elements. (IE: gold would have a lot less loss then say aluminum) the better the conductor the less resistence and the less loss.

Then you have impedence too, (I always mess this up) but, for the same reason you use an SWR meter to match your antenna you want to balance your load to get the most output as you can. If you start to wrap you line, you create impedence. A coil blocks AC, and passes DC current. and a capasitor passes AC but blocks DC.. lol electronics 101..

I hope this helps.. I only post this to put my 2 cents in, helping if I can!

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message news:85ed38d.0211211506.7e1a479d@posting.google.com...
> richardharrison@webtv.net (Richard Harrison) wrote in message news:<3012-3DDD352A-263@storefull-2317.public.lawson.webtv.net>...
> > Art, KB9MZ wrote:
> > "What has the "shortest" path got to do with it?"
> >
> > The shortest surface path is the path of least r-f resistance and
> > impedance.
> >
> > Best regards, Richard Harrison, KB5WZI
>
> Richard for some reason my Google only updates twice a day,
> so there are many additions before I read my own post!
> Anyway I understand that Roy said re the 'shortest' path but for
> me that was just an assumption, that the shortest path was
> also the best impedance match ! Is this really the case ?
> Are not the impedances different inside a tube compared to the
> outside? Maybe I am seeing too much in the problem.
> Regards
> Art

2953. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 03:09:00 UTC
From: "Benjamin, KB9LFZ" <KB9LFZ@arrl.net>
Message-ID: <3ddd9d2c$1_8@news.teranews.com>
Source record: 130892
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Wouff Hong,

I'm not sure where you from, but that's beside the point. I read your suggestions to improve ham radio, and, as some one who is very proud of the organization they are from you wanted to let other people know your thoughts. As we both can see, it's raised a lot of havoc and questions and that sort of thing.

I must agree with you about some your suggestions, but lets look together at what you stated.

> Step 1: No more automatic renewals. Individuals must retest and
> pass all elements required for their license class.

-I feel the same way with this, because I think everyone should retest to get their driver's license every 10 years. Now we gotte realize how much a pain in the rear this would be, and not only take people away from this great hobby. It would be a good idea instead of retake tests, but to really encourage individuals bursh up on their skills, knowledge or electronic theory, etc.
>

> Step 2: The passing score for written exams needs to be raised to 90%.

-Again I agree that the level of accomplishment should be raised so people have good moral standards and treat with repect what they have their hands on when they worked hard to earn their Amateur license. 90% in manys' opinion would be to high; and it would frighten and discourage people.

> Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.

-Morse code, a favorite of many, and not so great of many, but who is to say good or bad. Personally, and maybe others like yourself have to say that morse code is the the "basics" or any form or radio. Just because we had to take those tests when we got our licenses doesn't mean others have to. It would be a better idea to encourage people to do the morse code because if they do, I've found they stay in radio longer because if they have what it takes to learn the morse code; they'll generally apply the same learning habbit in other areas of radio. Please don't Misunderstand me, many people don't like it and are very active. But lets encourage and not say anyone has to this or that.

> Step 4: Make the no-code license one year non-renewable.

-Sounds like a good idea, but tis better to encourage people to move on and help them along the way, then bark at 'em like their bosses do.

> Step 5: Cancel your league membership until they decide to work
> to improve things.

-If league's don't have memberships, they can't support us and improve things. Memberships provide income for our leagues to improve things. We all should encourage people to join a league of some type.

> Step 6: Complain to the ARRL when-ever you hear an idiot on the air.

-Nobody is perfect in this world except God. When people who is arrogrant operate, I find out someinfo about them and kindly correct them over the phone or in some kind of private conversation. Nobody likes to be humiliated in public or at anytime. Besure anyone who does this makes sure the other person needing correction is open to it. As the cliche' goes; " A man convinced against his will, is of the same opinion still."

> Step 7: Turn in rule breakers to the FCC.

-Same as above; Nobody is perfect. Constant offenders have some challange with some one or something which some one needs to find out what the deal is and help him out with it. People just doing harm out of no reason does need to be turned in however.

Hope this helps. As you can see I mentioned the word encouraged lot because many people are guilty of this, myself included. When people are guided to the direction they want to go, they will go. There is a story that goes something like this. "The sun and the wind cloud were having a contest to see who could have a man in the park below take off his coat. So the wind cloud says he'll go first and the sun hides behind him. The wind cloud blows and blows but the man in the park just holds on to his coat tighter and tighter. The wind cloud gives up and the sun comes out and just shines his warm rays down below to the man. The man removes his coat and goes pleasantly about his business." If the moral hasn't bern figured out by an intillgent individual like yourself, it is that when someone is forced to do something, they simply won't, or they'll possibly grudingly do it. Ask and encourage someone to do something and they'll give it all they got for their best effort.

Hope this Helps,

Respectfully,
~Benjamin, KB9LFZ

>
> 73, de Wouff Hong

"Wouff Hong" <rettysnitch@ugerumf.com> wrote in message
news:arrl.doesnt.care.anymore@all.com...
> Step 1: No more automatic renewals. Individuals must retest and
> pass all elements required for their license class.
>
> Step 2: The passing score for written exams needs to be raised to 90%.
>
> Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.

>
> Step 4: Make the no-code license one year non-renewable.
>
> Step 5: Cancel your league membership until they decide to work
> to improve things.
>
> Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
>
> Step 7: Turn in rule breakers to the FCC.
>
>
> 73, de Wouff Hong

2954. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 03:11:20 UTC
From: richardharrison@webtv.net
Message-ID: <11508-3DDDA058-111@storefull-2316.public.lawson.webtv.net>
Source record: 130895

Art, KB9MZ wrote:
"Are not the impedances different inside a tube compared with the outside?"

Art may be referring to the inside and outside of a shielded loop which the original poster asked about. The original poster asked about tarnish on the loop affecting loss as skin effect concentrates current on the surface of a conductor carrying r-f.

I didn`t express an opinion on that, but my experience with tarnished waveguide was that effect of tarnish was unmeasurable. Other posters have noted effects of tarnish on loss in cavities.

The impedance inside a shielded loop is likely different from that outside. I think it has to do with L/C.

The original questioner also said:
"---as the signal skins to the outside."

This indicates an understanding that r-f current remains near the surface of a conductor and usually cannot penetrate the conductor.

Roy said the "shortest path". I took that to mean a current path say from a point on the inside of a cavity where a coupling loop is attached, back through the hole the coupling loop uses to access the cavity, to the point on the outside of the cavity where a feedline attaches. Current follows the surface all the way. It cannot penetrate the wall of the cavity, except through a hole in the wall.

Impedance of a coupling loop, as Art knows as well as almost anyone, depends on loop configuration and placement.

Best regards, Richard Harrison, KB5WZI

2955. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 03:23:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utr8omn87hvp27@corp.supernews.com>
Source record: 130893

The impedance of the path along the inside of the tube is very high --
it's essentially a waveguide far below cutoff, and there's no charge
distribution possible that will support the fields required for
propagation along the inside. This changes if you put a concentric
conductor inside the tube, since that combination will support a field
distribution (TEM) that will propagate with relatively low loss. It's
basically why we use coax rather than waveguide at HF.

So the answer is that it really makes no difference whether you smash
the ends or not -- no significant amount of current will flow on the
inside of the tube in either case.

This all assumes that the wall thickness is at least several skin depths.

Roy Lewallen, W7EL

Gary Schafer wrote:
> On Thu, 21 Nov 2002 11:30:49 -0600 (CST), richardharrison@webtv.net
> (Richard Harrison) wrote:
>
>
>>Gary, K4FMX wrote:
>>"Will rf current flow on the inside of the tubing as well as on the
>>outside---?"
>>
>>Not as well because the outside is larger than the inside. Not only is
>>there more surface outside but there is less inductance. See Terman`s
>>1955 "Electronic and Radio Engineering" page 21.
>>"It is to be noted that some of this flux exists within the conductor
>>and therefore links with, i.e., encircles, current near the center of
>>the conductor while not linking with current flowing near the surface.
>>The result is that the inductance of the central part of the conductor
>>is greater than the inductance of the part of the conductor near the
>>surface---."
>>
>>This is so even in hollow conductors. The smaller the radius, the higher
>>the inductance.
>>
>>Best regards, Richard Harrison, KB5WZI
>>
>
>
> Hi Richard,
>
> I can understand the smaller radius of the inside of a tube having

> less surface area and a higher
> inductance than the outside. What I am wondering, is there any
> benefit to leaving the end of the
> tube open rather than closing (flattening) it when using it as a tank
> coil. It would seem that
> leaving it open would give a lower total effective resistance by
> allowing rf to flow on the inside
> as well as the outside. Giving the benefit of two surfaces rather than
> one.
>
> 73
> Gary K4FMX

2956. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 03:36:30 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDDA63E.A7B934A3@ieee.org>
Source record: 130894

"Peter O. Brackett" wrote:
> I have been wondering for a while, and I have asked Cecil about this on the
> NG, but didn't seem to get his interest,
> whether stubs might be used in an economical adjustable matching scheme
> similar to Cecil's adjustable length transmission line system.

Hi Peter, I had just such a system installed in AZ. Stubs are probably
a good way to go when the SWR is too low or too high for my present matching
scheme. For instance, if my 450 ohm SWR is lower than 4.5:1, there's no way I
can achieve a 50 ohm SWR less than 2:1 simply by varying the length of my
ladder-line. Same is true for 450 ohm SWRs higher than 18:1. Fortunately,
I chose my dipole length so my 450 ohm SWR is always between 7:1 and 15:1.
Of course, you realize that stubs depend on reflections for their operation. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2957. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 03:45:39 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <DLhD9.75012$P31.39495@rwcrnsc53>
Source record: 130896
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

It will also go against one of the things that ham radio is supposed to do:
advance radio.
--

CW
KC7NOD

"Nomen Nescio" <nobody@dizum.com> wrote in message
news:4a926543cae0f6b95c146c1fbe4d2479@dizum.com...
> The problem with ham radio is that it has become too easy to operate
> once you get the licence. Nobody has any respect for the rules because
> they didn't put in any more effort to get their equipment on the air
> than by reading the manual that came with it. The hobby has become
> like playing pac-man on the computer: it's entertaining but of little
> value.
>
> The way to make it valuable again is to allow hams to use only
> tube-type equipment, with no circuit boards, no computer chips; only
> good old-fashioned capacitors, resistors and inductors. Power output
> not to exceed 25 watts.
>
> Sure, it will keep the hobby to a pre-1970 or so level, technically,
> but it will also make it something that's worth doing.
>
>
>

2958. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 03:46:09 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <ark9a1$3bm$0@208.206.142.97>
Source record: 130897

"Dee D. Flint" wrote:
>
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:3013-3DDD086F-79@storefull-2317.public.lawson.webtv.net...
> > Nomen Nescio wrote:
> > As a disaster service, amateur radio has forever lost clout because of
> > cell phones and plenty of well equipped media.
> >
> >
>
> Didn't read up on the World Trade Center disaster support did you. All
> other communication services were so overloaded that it took 1/2 hour or
> more to get through using the conventional services. Over 300 hams gave
> over 5000 hours of communications support and it was indeed needed.

I would have thought Rich would have known about how cellphones are one
of the first communication assets to be overloaded and thus become
virtually useless when something big happens.
They are trunked, and designed to handle at max only a fairly small
percentage of their total number of subscribers. Thus when something big
happens and everyone tries to call home at the same time.....

Dick

2959. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 03:54:04 UTC
From: richardharrison@webtv.net
Message-ID: <19719-3DDDAA5C-38@storefull-2311.public.lawson.webtv.net>
Source record: 130900

Gary, K4FMX wrote:
"What I am wondering, is there any benefit to leaving the end of the tube open rather than closing (flattening) it when using it as a tank coil?"

My speculation matches Gary`s if he implies open ends might lower r-f resistance and loss slightly. I havent tried it, so I don`t really know.

In my experience are 100 KW shortwave broadcast transmitters with silver-plated tank circuits. These essentially had the open ended tubing that Gary mentioned. They had this to convey distilled cooling water to the plates of the final amplifier tubes. Water connections to the tank circuit tubing were made with Saran tubing for flexibility. So, the r-f could loop around the ends of the coil tubes, I suppose, for whatever lowering of the tank circuit resistance this might contribute. I doubt that this was much help. The silver plated tubing was so large, it really didn`t need a lot of help, and it was water-cooled anyway.

Best regards, Richard Harrison, KB5WZI

2960. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 04:05:14 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <b1brtucagiq11o026qs2b8lut098c69k72@4ax.com>
Source record: 130898

On Thu, 21 Nov 2002 21:11:20 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>
>The impedance inside a shielded loop is likely different from that
>outside. I think it has to do with L/C.

Hi Richard,

It would be interesting to see the math, but the intuition suggests
that the impedance (relative to what?) would be quite high.

And it is difficult to search for an L/C solution where the lead into
the tube negates its own inductance, and that of the "shortest path"
back to the hole the lead came in.

73's
Richard Clark, KB7QHC

2961. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 04:13:29 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <arkat9$7l7$0@208.207.71.130>
Source record: 130899

Dave Platt wrote:
>
>
> I'm equally concerned about those areas of the country which have
> switched their public-service radio systems over to centrally-
> coordinated "trunked" radios. They're convenient and flexible, but
> seem to me to be very vulnerable to single-point-of-failure problems.
> In these areas (and the SF bay area isn't yet one of them), the police
> and fire radio system could end up going off-line all at once if the
> coordination computers fail.

Yep. Conversations with users reveal those systems are vulnerable far
beyond normal
point to point and base to mobile radio systems. When trunked works it
is great and as you say, very flexible. When the system goes offline
(it's all computer controlled) you're out of business for the duration
of the outage. It ALL quits. Actually this factor would seem to enhance
the value of ham radio communications in emergencies.

>
> Amateur-radio systems have the advantage of being much less
> centralized than most official and commercial communications systems,
> and are thus somewhat less likely to be completely clobbered by any
> given disaster.

Exactly. Hams are pretty well distributed throughout the population and
incidents which might cause a serious problem to centralized systems
have much less effects on ham radio's capabilities.

The amateur traffic-handling capacity is not very
> large,

As a longtime emergency communicator I can state with some experience
that throughput is about the last consideration when the desperate need
is for *any* communications. Limited traffic handling capability can be
VERY useful, even critical.

but it's often robust enough to remain available when most
> other systems have failed completely.

Yes, and that fact alone makes ham radio a valuable asset.

Dick

2962. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 04:16:50 UTC
From: richardharrison@webtv.net
Message-ID: <19717-3DDDAFB2-294@storefull-2311.public.lawson.webtv.net>
Source record: 130903

Roy, W7EL wrote:
"---it`s essentially a waveguide below cutoff---."

Roy hit the nail on the head. A tube must be at least 1/2-wavelength in diameter to propagate a wave through. Attenuation below cutoff frequency is very severe.

Radio chassis have been deliberately built as "waveguides below cutoff" to prevent r-f feedback from output to input. Waveguides are circular, rectangular. and oval in cross section. The larger dimension must be at least 1/2-wave.

Best regards, Richard Harrison, KB5WZI

2963. WTB: Hustler vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 04:25:08 UTC
From: KU4YP <ku4yp@earthlink.net>
Message-ID: <EkiD9.3020$OZ4.305966@newsread1.prod.itd.earthlink.net>
Source record: 130901
Cross-posted to: rec.radio.swap,rec.radio.amateur.antenna,rec.radio.amateur.equipment

hello,

looking for a hustler hf vertical. please state price and condition.
would like to find one in the south east usa if possible.

--
73 de KU4YP "There is no spoon....."
Michael Prevatt
Willow Oak, Florida
Homepage: http://home.earthlink.net/~ku4yp

2964. Re: YOUR VOTE: Best 2 meter Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 04:43:31 UTC
From: Seamus <w2mmr@arrl.net>
Message-ID: <TBiD9.66404$hp5.9300838@twister.southeast.rr.com>
Source record: 130902

"R. Scott" <washingtonham@yahoo.com> wrote in message
news:3DDA5FAD.CB9C4623@yahoo.com...
[snip]
> I am using and have always used a larsen 5/8s (coil with long whip) and
> never ever had problems with it. In fact Ive the same one I bought 20
> years ago and its still going strong. I currently have it mounted on a
> Lip mount in the hood (the little angle bracket one).
>
[snip]
ty N7HJ
> Everett, Washington.

Amen to the Larsen 5/8 wave. I've been using the same one since 1989/1990.
It is like the old Timex commercial, "Takes a licking, keeps on ticking".
I've whacked low-hanging tree branches, garage door frames, etc. The only
damage is the corona tip (or is it eye protector tip) came off when whacked
on a tree branch a number of years ago. Oh yeah...it works very well too!

73,

Jim - W2MMR
Clayton, NC

2965. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 06:03:04 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <arnpdc62nl0@enews2.newsguy.com>
Source record: 130805
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

I agree, as the politics within ham radio will kill ham radio long before
other issues will.

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

> Much as I dislike some of the current state of things in amateur radio, we
> live in the 2000's not the 1950's. We have to deal with the current
> reality, bad as it might be. Returning to 1952 is not going to cure the
> problem. We need to pull together as hams and do things without bugging
the
> FCC for everything. We used to do that.
>
> Charles
> N5HSR, Extra
>
>

2966. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 06:12:37 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-6F5B9C.22125921112002@newssvr13-ext.news.prodigy.com>
Source record: 130904
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

In article <A7gD9.74542$P31.39063@rwcrnsc53>,
"Brian Denley" <bdenley@attbi.com> wrote:

> Oops I spelled ridiculous wrong! Sorry
>
> --
> Brian Denley
> http://home.attbi.com/~bdenley/index.html
> "Brian Denley" <bdenley@attbi.com> wrote in message
> news:TVdD9.76246$WL3.32982@rwcrnsc54...
> The
> > very idea sounds rediculous to us.

The people that should be apologizing are the ones responding to "Wouff
Hong." They have reached a new level of "rediculous - ness."

--
Telamon

2967. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 06:14:13 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <arnpdd72nl0@enews2.newsguy.com>
Source record: 130806
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Step 1: No more automatic renewals. Individuals must retest and
pass all elements required for their license class.

This one I actually agree with. If the statements made by certain indivuals about "growing" with the hobby and climbing the ladder of licensure are to be true, then hams should not have a problem taking a test that should be a breeze since they have "obviously" advanced within 10 years....

Step 2: The passing score for written exams needs to be raised to 90%.

Dunno about 90%, but think that 80% sounds fairly reasonable. Add more questions to the test, and choose other formats of testing other than multiple-guess too.

Step 3: Code elements should be 13 wpm for General, and 20 wpm for Extra.

See not a huge problem there, but never understood why 13 for the General. Why not 12, or 14, or ??? What is so special about the 13 wpm? Anyone know why they chose 13 for the "middle" code test?

Step 4: Make the no-code license one year non-renewable.

2 years seems like a fairer option.

Step 5: Cancel your league membership until they decide to work
to improve things.

Hmmm.... could start a whole new newsgroup on this one.........

Step 6: Complain to the ARRL when-ever you hear an idiot on the air.

They are not our governing body, nor will I ever accept them as our "governing body." It is bad enough that they have taken over the testing duties.

Step 7: Turn in rule breakers to the FCC.

DUUUHHHHH!! All should do that.... but follow proper policy/procedure when doing so. Also work towards the goal of getting the FCC to actually do something about that in the first place.

All in all, the problems people want to bitch about regarding ham radio stems back to the FCC each and every time. They make the rules/policy/procedures and they are the ones to blame. HOLD THE FCC responsible.

--
Ryan, KC8PMX

FF/MFR
REMOVE "NOSPAM" in email address to reply.

2968. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 06:15:47 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <hRjD9.682$pc.139347@news.iquest.net>
Source record: 130905
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"W6DKN" <w6dkn-nospam-@qsl.net> wrote in message news:seeD9.2816$EY.2613@fe01...
> "John S. Dyson" <dyson@iquest.net> wrote in message
> news:MKbD9.657$pc.135424@news.iquest.net...
>
> > <<< SNIP >>>
> > There really needs to be a basic ham license w/o code.
>
> There already is - it's called a No-Code Tech.
>
> > <<< SNIP >>>
> > To work at all in the
> > 'code' bands, you'll need to pass the code test (similar to the good old
> reserved
> > bands for extra
>
> Let's just keep it simple. To work any band / mode below 30 mhz. you need a
> higher class license (oops, that's how it is now... :>)
>
Actually, they should probably limit the power for the 'communicators' to less than 100W, and the higher technical licenses would allow for higher power :-). The 30MHz, I guess, is still a treaty thing, and indicative of stagnation. Maybe the 'communicators' with little technical criteria might even be limited to 10-50W at VHF and above.

The goal isn't to punish people, but to motivate people to learn how their stuff works. I suspect that the VHF bands are too full for much experimentation, but the technology for homebrew on 2GHz on up is now relatively achievable by mere mortals.

Wouldn't it be cool if people really designed/built their own stuff that makes sense to do so, rather than buying their devices from boutiques? Alot of stuff isn't really practical to build (e.g. the communicator 2M units, or walkie talkes), and the stuff that is extremely practical to build (10M transmitter) even with few mechanical skills, would be constrained by the code requirement.

So, for the newbie, where homebrew is more practical below 100MHz, the code constraints tend to continue their burden.

John

2969. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 06:17:47 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <arnpde82nl0@enews2.newsguy.com>
Source record: 130807
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

I look at the code requirement a little different..... If it is so important, then ALL radio services should have to pass at least the same minimum 5wpm as we do.

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

"Peter Lampione" <plampione@yahoo.com> wrote in message news:b30faff8.0211202034.1cf442eb@posting.google.com...
> I would suggest somethig rather different.
>
> Take out the code requirement, and put in the test some DSP questions
> (how to make filters, equalize volume, remove noise, and modulate in
> phase, frequency, quadrature, etc) as well as more advanced circuit
> design.
>
> The code requirement is just silly.
> Code is just one of the many ways to encode a signal, a way that
> happens to be possible to do by hand. But why bother with it?
> That it is useful in emergencies is a ridiculous thing - if your
> transceiver works, you might as well talk into it, so also general
> SWL, and not only hams, can understand your transmission.
> Instead, with the increased ease with which signals are digitized,
> DSP should really be required knowledge.
> I mean, it takes so little nowadays to feed the signal into an audio
> board
> or better A/D converter, and then start doing things digitally...
>
> In fact, consider this: DSP should be required because, in case of
> emergency, you hook up your PC/laptop audio board to the radio, and
> there you go,
> modulating any way you want...
>
> Code is what keeps me getting a ham licence.
> I just don't suffer fools gladly, and the code requirement is foolish.
> If I want to waste time, there are many more pleasant ways to do it.
>
> Cheers!
>
> Peter
>
> Oh and one more thing: I think it is incredibly funny that in a

> country where you can get a driver's licence without knowing how to
> operate a stick shift, you cannot operate ham without knowing code.
>
> There, now flame me.
>
> rettysnitch@ugerumf.com (Wouff Hong) wrote in message
news:<arrl.doesnt.care.anymore@all.com>...
> > Step 1: No more automatic renewals. Individuals must retest and
> > pass all elements required for their license class.
> >
> > Step 2: The passing score for written exams needs to be raised to 90%.
> >
> > Step 3: Code elements should be 13 wpm for General, and 20 wpm for
Extra.
> >
> > Step 4: Make the no-code license one year non-renewable.
> >
> > Step 5: Cancel your league membership until they decide to work
> > to improve things.
> >
> > Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
> >
> > Step 7: Turn in rule breakers to the FCC.
> >
> >
> > 73, de Wouff Hong

2970. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 06:26:41 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <arnpdf92nl0@enews2.newsguy.com>
Source record: 130809
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Hmmmm.... most US states already do that somewhere between every 2-4 years.... As well as they should too... And they also need to start testing senior citizens more often too..... (not gonna state what age they should start that at though...) I have worked a variety of accident scenes where the scene was clearly marked and using on the fire trucks to block the lane, with lights operational, pile-on orange cones, road flares etc, and a senior citizen still plowed into the firetruck. He claimed they could not see it..... Jeesh, you could see the scene from a freaking mile away!!!!!! Yeah, I am all for retesting on a fair basis.

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

"OK1SIP" <remove_ok1sip@atlas.cz> wrote in message
news:5f5159fa.0211202329.2d9ec780@posting.google.com...
> Seven nice steps to DESTROY and KILL ham radio. Only several fanatics
> would stay. How would you like to be re-tested for your driving
> license every year ? Or to be subject to regular tests from the law
> codex under the penalty of losing your citizenship ? BTW, do you have
> a written permission to use the "trademarks" Wouff-Hong, Rettysnitch
> and Uggerumph ?
>
> God save the hamradio !
> OK1SIP

2971. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 06:28:27 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <91kD9.683$pc.139598@news.iquest.net>
Source record: 130906
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Dee D. Flint" <dee.hays@sbcglobal.net> wrote in message
news:N2fD9.2358$4j5.1261721@newssvr28.news.prodigy.com...
>
> Actually if you limit them to phone only until they learn higher
> endorsements, too many will simply stay there. Allowing phone privileges
> should be the treat that they get after proving themselves competent in
> other areas of ham radio.
>
The limitations for those without the 'technical competence' endorsement should
probably be a reasonably low power like 20-50W on VHF/UHF and/or 100W for HF.
Phone should probably be the first mode of communication, mostly because
of the relative usefulness (e.g. during normal disasters, to help with communications,
phone will more often be useful rather than code (unless there is a WWIII)). During
urban disasters, if we are having to deal with code, the situation is probably
severe enough that ham communications ettiquete would be the least of our worries.

There certainly should be reserved areas of the HF bands for code, and those
people with/without code who haven't passed the technical criteria for the
technology endorsement, will be limited in power. Really, if someone cannot
quickly whip up a preamp/active impedance match for an HF frontend that
has to work in an area near a 50kW MW transmitter without overwhelming
intermod, then it kind of worries me about how the ham is going to competently
deal with the numerous issues of using their 500W-1kW rig. It isn't just
a matter of getting on the air, but also avoiding interference with TV (including
nowadays 8VSB), AM/FM radio, and other more important services.

People do get 'on the air', and usually do the right thing, but it is VERY SAD
that too few people build their own equipment. Of course, CBers had historically
been known to simply slap on an illegal 'linear', and their rigs sometimes worked
okay also (often with anti-social interference :-)).

Of course, my attitudes about technological competency can be mapped to
the equivalent attitudes of those who have already passed the advanced
code tests. In the normal profile of natural/terror disaster, the availability of
a radiotelephone communications mechanism would be much more useful
than if the 'HRO' only had a code rig.

John

2972. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 06:32:01 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <arnpdg02nl0@enews2.newsguy.com>
Source record: 130808
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Yep... overall the hobby is declining, but it is not from the testing procedures. Anything viewed worthwile by someone is worth pursuing as well as whatever obstacles along the way. The root of the problem is in the PR side. I still run into tons of people that didn't even know ham radio existed. A much smaller group associates it with CB from my own local area experiences. We need to promote the hobby more. We need to get ham radio into the schools, associate it with the cirriculums. We need to start doing things that WILL get people coming to us, to become hams. Testing sessions with a mere few testee's definitely reflects that there is a problem with promotion of the hobby. But that would take actual action by people and god forbid that eh????

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

"Larry Bratcher" <lbratche@swbell.net> wrote in message
news:bQ4D9.334$9S3.311643194@newssvr11.news.prodigy.com...
> Sure think...the hobby is declining now so let's make it that much harder
to
> bring people into it.
>
> What an Idiot!
>
>
> "Wouff Hong" <rettysnitch@ugerumf.com> wrote in message
> news:arrl.doesnt.care.anymore@all.com...
> > Step 1: No more automatic renewals. Individuals must retest and
> > pass all elements required for their license class.
> >
> > Step 2: The passing score for written exams needs to be raised to 90%.
> >
> > Step 3: Code elements should be 13 wpm for General, and 20 wpm for
Extra.
> >
> > Step 4: Make the no-code license one year non-renewable.
> >
> > Step 5: Cancel your league membership until they decide to work
> > to improve things.
> >
> > Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
> >
> > Step 7: Turn in rule breakers to the FCC.

> >
> >
> > 73, de Wouff Hong
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.419 / Virus Database: 235 - Release Date: 11/14/2002
>
>

2973. Re: LEGAL CABLE DESCRAMBLER mmmm

2974. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 10:08:24 UTC
From: W6DKN <w6dkn-nospam-@qsl.net>
Message-ID: <qfnD9.3463$EY.1578@fe01>
Source record: 130908
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"John S. Dyson" <dyson@iquest.net> wrote in message
news:hRjD9.682$pc.139347@news.iquest.net...
<<< SNIP >>>
> Wouldn't it be cool if people really designed/built their own stuff that
makes sense to
> do so, rather than buying their devices from boutiques?

I do, and so do a lot of hams that have any working electronics knowledge,
but you don't get that by simply memorizing the answers to 30 multiple
choice questions...

> Alot of stuff isn't really
> practical to build (e.g. the communicator 2M units, or walkie talkes)

My first 2 meter rig was a kit (Heathkit), as were the first pair of walkie
talkies I ever owned (Allied Radio).

>, and the stuff
> that is extremely practical to build (10M transmitter) even with few
mechanical
> skills, would be constrained by the code requirement.

The only practical 10 meter transmitter that one with limited skills
might be able to put together would be a CW transmitter, so it would be
of no use to a person that did not know code.

> So, for the newbie, where homebrew is more practical below 100MHz, the
code
> constraints tend to continue their burden.

What burden? There is nobody forcing them to become a ham. It is something
that one does because they want to do it. And according to their level of
effort and dedication to the hobby, they are rewarded with additional
operating privileges.

73 de W6DKN

2975. Re: Butterfly Beam Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 11:30:17 UTC
From: henryjs@northnet.org
Message-ID: <055stu8kg1du0r27is48irk047rrd7a3b2@4ax.com>
Source record: 130909

On Sun, 17 Nov 2002 05:23:48 GMT, "Demitri Garazha"
<vze2cd4i@verizon.net> wrote:

>ak2p@qsl.net

I have been contemplating purchase of a Butternut Butterfly.
Are you displeased with yours or is there some other reason for
selling it?

Hank, W2RXL

2976. Re: Icom PW1 v. Yaesu VL-1000 linears: Which is better?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 11:39:28 UTC
From: Larry Gauthier <larryg_at_ismi.net>
Message-ID: <uts5rdc9o5jpc4@corp.supernews.com>
Source record: 130910

I love my PW-1 amp - when coupled with an Icom rig you get auto band-change, auto-tune, and 2 in/4 out antenna selections. For DX chasing and rapid band change it's great.

But, it is NOT quiet. There are four fans in the PW-1, and each kicks in at different times (power on, transmit mode, high temp, tuner in use). The good news is that with the remote head you can move the amp away from your operating position - even put it behind a wall, because all operations are performed from the control head. So, it's noisy but you can put the noise somewhere else. Otherwise, if the amp were right there on my operating desk I would be an unhappy camper! ;-(

-larry
K8UT

> And which is quieter?
>

2977. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 13:55:02 UTC
From: N2EY@AOL.COM
Message-ID: <c2356669.0211220555.14c476e5@posting.google.com>
Source record: 130911
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"John S. Dyson" <dyson@iquest.net> wrote in message
news:<hRjD9.682$pc.139347@news.iquest.net>...
> "W6DKN" <w6dkn-nospam-@qsl.net> wrote in message news:seeD9.2816$EY.2613@fe01...
> > "John S. Dyson" <dyson@iquest.net> wrote in message
> > news:MKbD9.657$pc.135424@news.iquest.net...
> >
> > > <<< SNIP >>>
> > > There really needs to be a basic ham license w/o code.
> >
> > There already is - it's called a No-Code Tech.

Actually, the licenses say "Technician". Nothing about code or nocode
on any FCC ham license. And all US hams are allowed to use Morse code,
test or no test.

A distinction needs to be made between those who are against the code
TEST, and those who are against code USE.

> > > To work at all in the
> > > 'code' bands, you'll need to pass the code test (similar to the good old
> reserved
> > > bands for extra

WHY? There's no requirement to pass such a test today. In fact, 6 and
2 meters have the only "Morse only" segments - and they are open to
use by Techs who haven't passed a code test.

> > Let's just keep it simple. To work any band / mode below 30 mhz. you need a
> > higher class license (oops, that's how it is now... :>)
> >
> Actually, they should probably limit the power for the 'communicators' to less than 100W,
> and the higher technical licenses would allow for higher power :-).

Probably a good idea, because then the RF exposure questions on the
entry-level tests could be tailored to the power levels permitted.

> The 30MHz, I guess,
> is still a treaty thing, and indicative of stagnation.

Nope. It's simply a treaty requirement. Once upon a time the
requirement was for all ham licenses. Over the years an exception has
been included for VHF/UHF because there is relatively little routine
use of Morse by hams on VHF/UHF. The limit has gradually been lowered
at various WRC conferences - 1000 MHz, 144 MHz, 30 MHz. Next year it
will probably go to 0 Hz ;-)

Before judging whether "code is dead" or "obsolete/outdated/nobody
uses it anymore", try actually LISTENING to the ham bands below 30 MHz
- particularly the lower ends of the bands, where Morse use is most
common.

This weekend would be a good time to listen.

> Maybe the 'communicators' with
> little technical criteria might even be limited to 10-50W at VHF and above.

Sure.
>
> The goal isn't to punish people, but to motivate people to learn how their stuff works. I
> suspect that the VHF bands are too full for much experimentation, but the technology
> for homebrew on 2GHz on up is now relatively achievable by mere mortals.

Plenty of room on all bands for experimentation.
>
> Wouldn't it be cool if people really designed/built their own stuff that
> makes sense to do so, rather than buying their devices from boutiques?

I do that, and have been doing so, for more thna 35 years.

> A lot of stuff isn't really
> practical to build (e.g. the communicator 2M units, or walkie talkes), and the stuff
> that is extremely practical to build (10M transmitter) even with few mechanical
> skills, would be constrained by the code requirement.
>
> So, for the newbie, where homebrew is more practical below 100MHz, the code
> constraints tend to continue their burden.

How does the requirement to learn code at 5 wpm just well enough to
pass a test unreasonably constrain the ability to build radio
equipment? Hams have been building rigs long before there were
licenses without code tests. Heck, I built my first transmitter at age
13 - right after I passed the code test. That was not at all unusual
in 1967.

The REAL "burdens" of home design and construction today are the
practical and economic constraints. Manufactured ham gear, and kits,
are inexpensive and plentiful today. What sort of projects would you
recommend for the raw newbie?
Do you think it's practical for a new ham without an extensive
electronics background to design and build an HF SSB transceiver as a
first project?

73 de Jim, N2EY

2978. 4NEC2 ver 5.0 Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 13:57:59 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0211220557.5c68dad2@posting.google.com>
Source record: 130912

I have it installed on a Windows XP system (the 4nec2X version)

It seems to run ok. At least the GUI part, as I can load and view antenna geometry. However, when I do a 'Generate' I do not see any 'out' file. The DOS window comes and goes so fast that I suspect there is some error that it is bombing out on, but it is too fast to read.

I noticed the INI file has some explicit directories defined. Should these be changed to reflect how my system is set up? I have 4nec2X installed in c:\Antennas\NEC\, not directly at the root.

There aren't any hardcoded directories in the program, are there?

By the way, I am very impressed with the part that I do have running. Well done, Arie!

Jim
N8EE

2979. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 14:05:49 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0211220605.35eba7c7@posting.google.com>
Source record: 130913

> I can't print patterns on my Laser Jet but this is mentioned in
> the documentation and it works fine on my color printer.
> The windows in 4NEC are too small. You can't see the entire
> title of long file names for example and they don't scroll.
> If 4NEC2 had a better editor and entry system and better
> documentation it would blow the others out of the water. 4NEC2 has
> better graphics and plots with more information. I think it produces
> the most professional result.
> I am very happy with 4NEC2 and I can't thank the author enough,
> for giving me such a fine program.
>
> James Hammons
>
James,

thanks you for your nice words and especially for your comments.

I must agree with both your two(three) complaints. I also noticed
these.
The 'file-name' display length has low priority on my 'to do' list.
The entry system is more important but this requires a substantional
amount of (re)work. For now I am busy including a Genetic Algorithm
based optimizer, but this might be the next project to start.

Anybody having suggestions about how to graphically edit or input XYZ
coordinates for 3D structures ? (for instance, how this is done in
commercial 3D cad software ?)

Arie.

2980. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 14:10:07 UTC
From: richardharrison@webtv.net
Message-ID: <3275-3DDE3ABF-352@storefull-2315.public.lawson.webtv.net>
Source record: 130915

Dee, N8UZE wrote:
"Didn`t read up on the World Trade Center disaster support did you."

I appreciate whatever ham radio did to alleviate 9-11-1.

I expect most ham messages were of the "Aunt Tessie says she`s OK" variety. The authorities likely wouldn`t allow hams entry to the scene.

People paid to make public service communications work pretend to seek ham support, but the support they seek is only for their budget increases. Forces external to their departments are threats to their control and expenditures.

As a disaster service, amateur radio has forever lost clout because of cell phones and plenty of well equipped media.

Cell phone toters outnumber ham radio toters 1000 to 1. The 911 call therefore is that much more likely to come from a cell phone.

In my area, public authorities have elaborate mobile communications centers ready to roll to any disaster, even for loan out of state. Here, they also have dispersed communications centers ready to contact the mobile centers. Hired personnel are ready to expertly handle communications and perform under threat of job loss or hope of commendation and salery increase.

Match that with ham radio!

Best regards, Richard Harrison, KB5WZI

2981. Re: 4NEC2 ver 5.0 Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 14:44:16 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <bmfstuoi2oemotf0fve591t98fu1cd99bf@4ax.com>
Source record: 130914

On 22 Nov 2002 05:57:59 -0800, jim.bolinger@lintek.aeroflex.com (JLB)
wrote:

|I have it installed on a Windows XP system (the 4nec2X version)
|
|It seems to run ok. At least the GUI part, as I can load and view
|antenna geometry. However, when I do a 'Generate' I do not see any
|'out' file. The DOS window comes and goes so fast that I suspect
|there is some error that it is bombing out on, but it is too fast to
|read.

Under "Settings", "General Setting" make sure that the Nec2DXS engine
is selected. In my case, with Nec2d selected it doesn't compute
either.
|
|I noticed the INI file has some explicit directories defined. Should
|these be changed to reflect how my system is set up? I have 4nec2X
|installed in c:\Antennas\NEC\, not directly at the root.

I changed mine.

Your results may differ.

Wes N7WS

2982. Re: "Even Saddam Hussein gets Spam..."

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 15:06:41 UTC
From: Stevo <mrstevo99@hotmail.com>
Message-ID: <PhCD9.2821$Jt.2182@fe04>
Source record: 130785

Richard Clark wrote:

> On Mon, 18 Nov 2002 14:39:22 -0500, "Fred Hambrecht Sr."
> <w4jle@charter.net> wrote:
>
>>Do you really believe that the government was too stupid to figure this
>>out by themselves?
>
> All Hail Bush!

What would you rather have, all hail Al Gore ?? Given the choice and the circumstances, I would rather have 'ol Georgy-boy in there than what we have had for the last eight years. At least now we are trying to clean up the situation instead of sitting around telling each other how great other cultures are and how bad America is.

I am no fan of the present administration in some areas (i.e. the Patriot Act), but I will take it over the alternative. I would shudder to think what would be happening if Al Gore had gotten in there. You could pretty much just hand over you guns after 9/11.

Stevo

2983. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 15:21:27 UTC
From: Landshark
Message-ID: <XXrD9.2666$Fx1.178122971@newssvr21.news.prodigy.com>
Source record: 130916
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Benjamin, KB9LFZ" <KB9LFZ@arrl.net> wrote in message
news:3ddd9d2c$1_8@news.teranews.com...
> Wouff Hong,
>
> I'm not sure where you from, but that's beside the point. I read your
> suggestions to improve ham radio, and, as some one who is very proud of
the
> organization they are from you wanted to let other people know your
> thoughts. As we both can see, it's raised a lot of havoc and questions and
> that sort of thing.
>
> I must agree with you about some your suggestions, but lets look together
> at what you stated.
>
>
>
> > Step 1: No more automatic renewals. Individuals must retest and
> > pass all elements required for their license class.
>
> -I feel the same way with this, because I think everyone should retest to
> get their driver's license every 10 years. Now we gotte realize how much a
> pain in the rear this would be, and not only take people away from this
> great hobby. It would be a good idea instead of retake tests, but to
really
> encourage individuals bursh up on their skills, knowledge or electronic
> theory, etc.
> >
>
> > Step 2: The passing score for written exams needs to be raised to 90%.
>
> -Again I agree that the level of accomplishment should be raised so people
> have good moral standards and treat with repect what they have their hands
> on when they worked hard to earn their Amateur license. 90% in manys'
> opinion would be to high; and it would frighten and discourage people.
>
>
> > Step 3: Code elements should be 13 wpm for General, and 20 wpm for
Extra.
>
> -Morse code, a favorite of many, and not so great of many, but who is to
say
> good or bad. Personally, and maybe others like yourself have to say that
> morse code is the the "basics" or any form or radio. Just because we had

to
> take those tests when we got our licenses doesn't mean others have to. It
> would be a better idea to encourage people to do the morse code because if
> they do, I've found they stay in radio longer because if they have what it

> takes to learn the morse code; they'll generally apply the same learning
> habbit in other areas of radio. Please don't Misunderstand me, many people
> don't like it and are very active. But lets encourage and not say anyone
has
> to this or that.
>
>
> > Step 4: Make the no-code license one year non-renewable.
>
> -Sounds like a good idea, but tis better to encourage people to move on
and
> help them along the way, then bark at 'em like their bosses do.
>
>
> > Step 5: Cancel your league membership until they decide to work
> > to improve things.
>
> -If league's don't have memberships, they can't support us and improve
> things. Memberships provide income for our leagues to improve things. We
all
> should encourage people to join a league of some type.
>
>
> > Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
>
> -Nobody is perfect in this world except God. When people who is arrogrant
> operate, I find out someinfo about them and kindly correct them over the
> phone or in some kind of private conversation. Nobody likes to be
humiliated
> in public or at anytime. Besure anyone who does this makes sure the other
> person needing correction is open to it. As the cliche' goes; " A man
> convinced against his will, is of the same opinion still."
>
>
> > Step 7: Turn in rule breakers to the FCC.
>
> -Same as above; Nobody is perfect. Constant offenders have some challange
> with some one or something which some one needs to find out what the deal
is
> and help him out with it. People just doing harm out of no reason does
need
> to be turned in however.
>
> Hope this helps. As you can see I mentioned the word encouraged lot
because

> many people are guilty of this, myself included. When people are guided to
> the direction they want to go, they will go. There is a story that goes
> something like this. "The sun and the wind cloud were having a contest to
> see who could have a man in the park below take off his coat. So the wind

> cloud says he'll go first and the sun hides behind him. The wind cloud
blows
> and blows but the man in the park just holds on to his coat tighter and
> tighter. The wind cloud gives up and the sun comes out and just shines his
> warm rays down below to the man. The man removes his coat and goes
> pleasantly about his business." If the moral hasn't bern figured out by an
> intillgent individual like yourself, it is that when someone is forced to
do
> something, they simply won't, or they'll possibly grudingly do it. Ask and
> encourage someone to do something and they'll give it all they got for
their
> best effort.
>
> Hope this Helps,
>
>
> Respectfully,
> ~Benjamin, KB9LFZ

Very well said Ben!

Landshark

--
Please note that any post that is from
S3Buell_SBCGlobailnet@hotmail.com
is a FORGE. My Addy is always going to
be from SBCGlobal.Net This person has
been a troll on Rec.Radio.CB for a long
time now. If you want to send a complaint,
forward each message complete with headers
to TOSUSENET@AOL.COM. abuse@hotmail.com,
groups-abuse@google.com
Beware of George WA3MOJ

2984. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 15:28:44 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211220728.2e8e47c@posting.google.com>
Source record: 130917

OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DDDA63E.A7B934A3@ieee.org>...
> "Peter O. Brackett" wrote:
> > I have been wondering for a while, and I have asked Cecil about this on the
> > NG, but didn't seem to get his interest,
> > whether stubs might be used in an economical adjustable matching scheme
> > similar to Cecil's adjustable length transmission line system.
>
> Hi Peter, I had just such a system installed in AZ. Stubs are probably
> a good way to go when the SWR is too low or too high for my present matching
> scheme. For instance, if my 450 ohm SWR is lower than 4.5:1, there's no way I
> can achieve a 50 ohm SWR less than 2:1 simply by varying the length of my
> ladder-line. Same is true for 450 ohm SWRs higher than 18:1. Fortunately,
> I chose my dipole length so my 450 ohm SWR is always between 7:1 and 15:1.
> Of course, you realize that stubs depend on reflections for their operation. :-)

Gentlemen it seems that you all have a great understanding of 'stubs'
and what they can do. Why is it that you cannot consider a parallel
circuit in the same
light? With your knoweledge and understanding it should be very easy
for you
to look at a parallel circuit(or loop if you wish to call it that)and
compare its function to that of a 'stub' circuit that generates
'profitable' radiation.
I for one would benefit greatly for your inputs on such a comparison
if you could give it the time.
Best Regards
Art

2985. Verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 15:29:35 UTC
From: BillBischoff@nettally.com
Message-ID: <arligv$rc9$1@news.utelfla.com>
Source record: 130918

Because of deed restrictions and my homeowners association I am limited to putting up a vertical and dipole. Assuming that I will install a vertical, can group members provide me with recommendations and assessments of the various antennas available. I will be using one with uses a counterpoise system rather than ground radials.

Thanks,

Bill
WS4B

2986. Re: Verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 15:31:40 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <w5sD9.8740$ro.361233@news2.west.cox.net>
Source record: 130819

Hi Bill -- maybe see user reviews at URL:
http://www.eham.net/reviews/products/13

Antenna Manufacturers at URL:
http://ac6v.com/antdealer.htm

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"Bill Bischoff" <BillBischoff@nettally.com> wrote in message
news:arligv$rc9$1@news.utelfla.com...
>
> Because of deed restrictions and my homeowners association I am limited to
> putting up a vertical and dipole. Assuming that I will install a vertical,
can
> group members provide me with recommendations and assessments of the
various
> antennas available. I will be using one with uses a counterpoise system
rather
> than ground radials.
>
> Thanks,
>
> Bill
> WS4B

2987. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 15:39:58 UTC
From: "Vince Fiscus, KB7ADL" <vlfiscus@mcn.net>
Message-ID: <idsD9.3665$OZ4.387895@newsread1.prod.itd.earthlink.net>
Source record: 130821
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Hey Woulff,

Let me know if you ever decide to run for the ARRL Board of Directors.
I'll re-join again and vote for you!

KB7ADL

rettysnitch@ugerumf.com (Wouff Hong) wrote in
news:arrl.doesnt.care.anymore@all.com:

> Step 1: No more automatic renewals. Individuals must retest and
> pass all elements required for their license class.
>
> Step 2: The passing score for written exams needs to be raised to 90%.
>
> Step 3: Code elements should be 13 wpm for General, and 20 wpm for
Extra.
>
> Step 4: Make the no-code license one year non-renewable.
>
> Step 5: Cancel your league membership until they decide to work
> to improve things.
>
> Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
>
> Step 7: Turn in rule breakers to the FCC.
>
>
> 73, de Wouff Hong
>

2988. Grounding chimney mount antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 15:40:00 UTC
From: H Johnson <classy-hjohnson@daystardev.dyndns.org>
Message-ID: <fbjstu8uhkoubcsasdeaf4htrcc7poi3i5@4ax.com>
Source record: 130820

I am considering placing my antenna (ham and scanner) on a mast
mounted to my chimney and driving a ground rod down close to where the
coax will be entering the eave.

For grounding, do I need to ground all the coax braid feed lines
(eventually there will be three feed lines) to the ground rod? This
would create a "U" shaped cable path outside the house since the coax
would have to go down to the ground then back up into the eave.

Or is running a solid copper ground wire from the mast to the ground
sufficient? Or do I need to do all the above.

Any suggestions/experience would be greatly appreciated.

- H. Johnson

==========
*** SPAM Filter in place ***
Just de-classify the e-mail address for correct reply-to
==========

2989. Re: Free antenna modelling package

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 15:47:03 UTC
From: Claus Waldraff <df8gh@darc.de>
Message-ID: <3DDE5177.4060103@darc.de>
Source record: 130719

James Hammons schrieb:
> It took a bit of work to get 4nec2 running, but it is well
> worth it.

Well said.

> The
> editor is not as easy to use as NECwin+

Try instead the excel spreadsheet MultiNEC of Dan, AC6LA

http://www.qsl.net/ac6la/index.html

This contains a NEC engine and read many different formats (AO; MMANA;
Antenna Model, EZNEC,NEC) and save them in NEC or EZNEC format
Use the usual spreadsheet to plug in the numbers in X;Y;Z plane and watch
the result in 4nec2

>If 4NEC2 had a better editor and entry system

see above

Claus
DF8GH, JN48pa
http://home.t-online.de/home/df8gh

2990. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 15:53:10 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211220753.2c82f2f6@posting.google.com>
Source record: 130822

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<11508-3DDDA058-111@storefull-2316.public.lawson.webtv.net>...
snip
>
> The original questioner also said:
> "---as the signal skins to the outside."
>

>
> Best regards, Richard Harrison, KB5WZI

Richard I believe the term 'skin effect' is being somewhat misused
and it could be by me ! Radiation will not occur because of the flow
of
current alone even tho the electrons do accelerate and deccellerate.
For radiation to occur there must be no space constraint and thus that
is why
we talk of "skin effect", but it must always refer to an OUTSIDE skin
and not just a "skin" which can also refer to a INNER surface where
radiation is constrained such as with a coax. If one uses a tube that
has a thickness
of the so called 'skin depth' for a given frequency the remaining
energy will not
move to the inner skin surface to radiate but will continue to
"struggle' to the outer surface where it has the freedom to radiate.If
a additional conductor is placed within this tube it will only see a
single resistance value which does not include a RADIATION resistance
which like a coax will thus conserve energy.
Remember I have no formal training in radio stuff and that may well
lead to erronius thinking on my part (probably have used different
terms to the norm also)
Note 'Out of the box' thinking provides radiation
Regards
Art

2991. coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 16:48:32 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0211220848.6f97152b@posting.google.com>
Source record: 130823

Hi,
I need some info on coplanar patch antenna. It seems to be a
interesting topic and only few papers are available. I would really
appreciate if someone provide me with some details.

Thanks in advance.

2992. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 17:16:57 UTC
From: K<unk>HB <k<unk>hb@arrl.org>
Message-ID: <dEtD9.3896$OZ4.400747@newsread1.prod.itd.earthlink.net>
Source record: 130824
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

--
<unk><unk><unk> 73, de Hans, K0HB
--
Help support youth involved in Amateur Radio.
http://www.mnyarc.org
http://www.k0bsa.org
"W6DKN" <w6dkn-nospam-@qsl.net> wrote

: And according to their level of effort and dedication to the hobby,
: they are rewarded with additional operating privileges.

Nope, has nothing to do with "effort and dedication".

Hang around here long enough, and you will see someone write
something like:

" A really tough written test would surely separate those
who really have an interest in the hobby.", or..

" Other, more relevant, methods can establish an applicant's
dedication to the service.", or..

" I think it is effective at minimizing the undesirables.",
or..

" ..... the key to maintaining the quality of hamming is
making it something to work for.", or..
.
"My opinion is that any obstacle you put in the way to any
achievement guarantees that only those with dedication and
strong interest will get there."

All of the above quotations, gathered from recent threads, were
made by serious and well-intentioned licensees who want the best
for the Amateur Radio Service.

All of the above quotations also completely miss the mark, in
that they suggest that the examination process is the key to
ensuring that "the right kind of people" (those who are
"worthy") become licensed and, by extension, that "the wrong
kind of people" get filtered out.

First, the testing procedure is an "entrance" exam, not a
"graduation" exam.

Second, while "interest", "dedication", and "hard work" might
be hallmarks of good amateurs, the FCC and ITU regulations

do not specify levels of interest, dedication, hard work or other measures of "worthiness" as requisites for a license. Therefore it is not the function of the examination process to determine (even if it could) if an applicant is "worthy" but rather to determine if he/she is QUALIFIED to use the spectrum assigned. There should be no "dumbing down", but neither can there be a requirement that the examination process screens out applicants who lack "commitment".

Don't get me wrong here, folks. I believe that the examination process ought to be rigorous enough to determine proper knowledge and skills so that a new licensee does not inadvertently trash the bands, hurt themselves, or harm other users/uses of the spectrum. I am not even suggesting that Morse testing is a "good thing" or a "poor idea". But I have no expectation that ANY examination can filter out "unworthy" applicants who lack the proper dedication or motivation.

Even if it could, who then would become the arbiter of "worthy"?

73, de Hans, K0HB
--
http://www.W0AA.org

2993. Re: Icom PW1 v. Yaesu VL-1000 linears: Which is better?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 17:26:12 UTC
From: nospam <xxxmmxxx@xxxspiritone.com>
Message-ID: <3DDE68B4.6DC48A20@xxxspiritone.com>
Source record: 130827

How far away do you have to put it to make the noise tolerable?

Larry Gauthier wrote:

> I love my PW-1 amp - when coupled with an Icom rig you get auto band-change,
> auto-tune, and 2 in/4 out antenna selections. For DX chasing and rapid band
> change it's great.
>
> But, it is NOT quiet. There are four fans in the PW-1, and each kicks in at
> different times (power on, transmit mode, high temp, tuner in use). The good
> news is that with the remote head you can move the amp away from your
> operating position - even put it behind a wall, because all operations are
> performed from the control head. So, it's noisy but you can put the noise
> somewhere else. Otherwise, if the amp were right there on my operating desk
> I would be an unhappy camper! ;-(
>
> -larry
> K8UT
>
> > And which is quieter?
> >

2994. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 17:28:53 UTC
From: richardharrison@webtv.net
Message-ID: <19717-3DDE6955-378@storefull-2311.public.lawson.webtv.net>
Source record: 130825

Art, KB9MZ wrote:
"If one uses a tube that has a thickness of the so called "skin depth", for a given frequency the remaining energy will not move to the inner skin surface to radiate but will continue to "struggle" to the outer surface where it has the freedom to radiate."

A thick conductive tube prohibits r-f current invasion to any significant depth. R-F can`t penetrate such a tube. Coax and waveguide don`t leak r-f if they are any good.

If such a tube has a wire running through it, radiation is shielded between the wire and outside world.

Current flow inside the pipe on the outer surface of the wire and the pipe`s inner surface operates as a transmission line. Current is restrained by Zo which ideally is the sq. rt. of L/C.

Without a wire through the pipe, the pipe will accommodate and propagate only wavelengths smaller than a dimension of 1/2-wave for the largest size of the pipe.

In any case, not much radiation escapes a good feedline accidentally.

A radiator has both radiation and loss resistances which remove energy.

To clarify doublet matching, I suggest the ARRL Antenna Book, edition 19, page 18-5.

To clarify skin effect, I suggest the 1955 edition of Terman, page 21.

To clarify transmission lines, I suggest page 82 of the 1955 Terman opus.

To clarify matching with single and multiple stubs, I suggest page 108 of the 1955 Terman opus.

Best regards, Richard Harrison, KB5WZI

2995. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 17:43:01 UTC
From: richardharrison@webtv.net
Message-ID: <19717-3DDE6CA5-381@storefull-2311.public.lawson.webtv.net>
Source record: 130829

Hanx, K0HB wrote:
"Even if it could (pick worthy applicants), who then would become the arbiter of "worthy?"

Hans is right. Tests and licenses are only to prevent interference. Code was needed when code was used to clear frequencies during emergencies.

Best regards, Richard Harrison, KB5WZI

2996. Re: Verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 17:49:15 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DDE6E1E.8FEBA027@shaw.ca>
Source record: 130826

Bill Bischoff wrote:
>
> Because of deed restrictions and my homeowners association I am limited to
> putting up a vertical and dipole. Assuming that I will install a vertical, can
> group members provide me with recommendations and assessments of the various
> antennas available. I will be using one with uses a counterpoise system rather
> than ground radials.
>
> Thanks,
>
> Bill
> WS4B

I would suggest you consider looking at the 'half wave'
type verticals such as the Cushcraft R5 or R7 -- some of
them are showing up at the flea markets or estate sales
for a decent price. I picked up an R7 a few years ago and
I'm really pleased with it.
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

2997. Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 18:11:46 UTC
From: Bill Ogden <ogden@us.ibm.com>
Message-ID: <3DDE7362.4C21FF9D@us.ibm.com>
Source record: 130828

I want to attach half-slopers to my TX-455 crank-up tower. The tower will hold (when I finally get it installed) a 5-band quad on a mast that extends 6' above the tower top. This is not much "counterpoise mass" at the top.

I can connect the half-sloper to the top of the tower (55' level) or to the top of the middle section (37' level). Which is better? I am concerned about the need for "counterpoise" above the attachment point and also about any side effects on the quad. (Would a 10' whip above the quad help anything?)

I will have a number of radials connected to the base of the tower. I want to use half-slopers on 40 and 80/75 meters -- and maybe on 160 and 30 if I can get a reasonable match on these bands. Coax feed for the half-slopers (and the quad) is outside the tower, using the coax stand-off arms.

Thanks,

Bill
W2WO

2998. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 18:53:57 UTC
From: BDKING <kingrat@buckeye-express.com>
Message-ID: <MPG.1848474b4628603e989794@news.buckeye-express.com>
Source record: 130830
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

In article <dEtD9.3896$OZ4.400747@newsread1.prod.itd.earthlink.net>,
k�hb@arrl.org says...
>
>
> --
> ��� 73, de Hans, K0HB
> --
> Help support youth involved in Amateur Radio.
> http://www.mnyarc.org
> http://www.k0bsa.org
> "W6DKN" <w6dkn-nospam-@qsl.net> wrote
>
> : And according to their level of effort and dedication to the hobby,
> : they are rewarded with additional operating privileges.
>
> Nope, has nothing to do with "effort and dedication".
>
> Hang around here long enough, and you will see someone write
> something like:
>
> " A really tough written test would surely separate those
> who really have an interest in the hobby.", or..
>
> " Other, more relevant, methods can establish an applicant's
> dedication to the service.", or..
>
> " I think it is effective at minimizing the undesirables.",
> or..
>
> " ..... the key to maintaining the quality of hamming is
> making it something to work for.", or..
> .
> "My opinion is that any obstacle you put in the way to any
> achievement guarantees that only those with dedication and
> strong interest will get there."
>
> All of the above quotations, gathered from recent threads, were
> made by serious and well-intentioned licensees who want the best
> for the Amateur Radio Service.
>
> All of the above quotations also completely miss the mark, in
> that they suggest that the examination process is the key to

> ensuring that "the right kind of people" (those who are
> "worthy") become licensed and, by extension, that "the wrong
> kind of people" get filtered out.
>
> First, the testing procedure is an "entrance" exam, not a
> "graduation" exam.
>
> Second, while "interest", "dedication", and "hard work" might
> be hallmarks of good amateurs, the FCC and ITU regulations
> do not specify levels of interest, dedication, hard work or other
> measures of "worthiness" as requisites for a license. Therefore it
> is not the function of the examination process to determine (even
> if it could) if an applicant is "worthy" but rather to determine
> if he/she is QUALIFIED to use the spectrum assigned. There should
> be no "dumbing down", but neither can there be a requirement that
> the examination process screens out applicants who lack
> "commitment".
>
> Don't get me wrong here, folks. I believe that the examination
> process ought to be rigorous enough to determine proper knowledge
> and skills so that a new licensee does not inadvertently trash
> the bands, hurt themselves, or harm other users/uses of the
> spectrum. I am not even suggesting that Morse testing is a
> "good thing" or a "poor idea". But I have no expectation that
> ANY examination can filter out "unworthy" applicants who lack
> the proper dedication or motivation.
>
> Even if it could, who then would become the arbiter of "worthy"?
>
> 73, de Hans, K0HB
> --
> http://www.W0AA.org
>
>
>
>
>

Besides, it's the Advanced and extras that cause the majority of deliberate rules violations. A tech or General might mess up, but an extra knows better and does it anyway. And how much effort should you have to put into a hobby?? Do the CW worshippers and "I hadto take a REAL test" guys have a life other than radio and are they still working? A lot of them are retired, sick and seem like they resent any changes because a new ham might not have to "go through what they did". I'm not married, but I have a full time job, other hobbies and interests, friends, pets, etc. How much of those do I have to ignore/abandon to be "worthy" to them?

A lot of people get turned off just by listening to some of the nonsense that goes on the air, and some get turned off after they get a no code ticket, and are ignored, trashed, ridiculed, talked over, etc by older hams, almost always of 20+ years experience, and almost always they seem to be Extras. If anyone should have their "plug pulled", it should be these guys. They have no excuses. The most local incident I can remember was when several hams in Detroit purposely interfered with anyone who tried to use the repeater having a call issued after the NO code was introed. This went on for some time, then they must have gotten some kind of warning, since it just suddenly stopped. AS a victim of these guys, I think something more should have been done. Andyes, I did make a complaint, complete with tapes of their nonsense.

BDK, no more CW for me, finally, it's over..

2999. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 19:05:49 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211221105.3b5701f2@posting.google.com>
Source record: 130831

aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message news

> Gentlemen it seems that you all have a great understanding of 'stubs'
> and what they can do. Why is it that you cannot consider a parallel
> circuit in the same
> light? With your knoweledge and understanding it should be very easy
> for you
> to look at a parallel circuit(or loop if you wish to call it that)and
> compare its function to that of a 'stub' circuit that generates
> 'profitable' radiation.
> I for one would benefit greatly for your inputs on such a comparison
> if you could give it the time.
> Best Regards
> Art

A stub generates no radiation at all. Profitable or otherwise. All the stub does is match the antenna feed impedance to the impedance of the feedline. I guess the single turn loop and cap used to match base fed 1/2 waves "ringo" could be an example of using a loop as a matching componant. But again all you are doing is matching the feedpoint impedance to the feedline impedance. As far as lines used for phasing purposes, I don't really consider them stubs myself. To me, a stub is a line that has no connection on one end. Shorted or unshorted doesn't matter. A section used in series with connections at both ends, I consider a transformer. A line used for phasing purposes, I'm not sure what to call. I usually just call them phasing lines. MK

3000. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 19:16:21 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <utt0k7mtf7ho6d@corp.supernews.com>
Source record: 130832
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

BDKING wrote:

>
>
> Besides, it's the Advanced and extras that cause the majority of
> deliberate rules violations. A tech or General might mess up, but an
> extra knows better and does it anyway. And how much effort should you
> have to put into a hobby?? Do the CW worshippers and "I hadto take a
> REAL test" guys have a life other than radio and are they still working?
> A lot of them are retired, sick and seem like they resent any changes
> because a new ham might not have to "go through what they did". I'm not
> married, but I have a full time job, other hobbies and interests,
> friends, pets, etc. How much of those do I have to ignore/abandon to be
> "worthy" to them?
>
> A lot of people get turned off just by listening to some of the nonsense
> that goes on the air, and some get turned off after they get a no code
> ticket, and are ignored, trashed, ridiculed, talked over, etc by older
> hams, almost always of 20+ years experience, and almost always they seem
> to be Extras. If anyone should have their "plug pulled", it should be
> these guys. They have no excuses. The most local incident I can
> remember was when several hams in Detroit purposely interfered with
> anyone who tried to use the repeater having a call issued after the NO
> code was introed. This went on for some time, then they must have gotten
> some kind of warning, since it just suddenly stopped. AS a victim of
> these guys, I think something more should have been done. Andyes, I did
> make a complaint, complete with tapes of their nonsense.
>
>
> BDK, no more CW for me, finally, it's over..

Here's a novel idea. Let's have Extra band segments, Newbie band
segments, no-code band segments, code-only band segments and a
Dont-even-bother-with-getting-a-license segment.

Oh wait...we already have that.

-Bill M

3001. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 19:32:16 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <6v0ttukfn58oe0qg7ud09at37dc4oph1sh@4ax.com>
Source record: 130833

On Thu, 21 Nov 2002 21:26:34 -0500, "Peter O. Brackett"
<ab4bc@ix.netcom.com> wrote:

>I have been wondering for a while, and I have asked Cecil about this on the
>NG, but didn't seem to get his interest,
>whether stubs might be used in an economical adjustable matching scheme
>similar to Cecil's adjustable length
>transmission line system.

Hi Peter,

You might want to pick up a reference on radar and waveguides, but one
focused at the lab bench rather than in the air. At the bench there
are a number of gizmos to aid in matching and one of the most common
is the Double Stub Tuner.

This model is an evolution from the single stub tuner that you
describe having experience with. There, with the single stub, you
were limited to maintain a relationship between the length of the
stub, and its distance from the mismatch. I am sure that you probably
placed the stub at the feedpoint, but this is the least common method
you would find at the bench. However, there is no purpose in pursuing
the minutia of single stubs when Double Stub Tuners are more flexible.
Cecil's method, in some way, mimics the Double Stub Tuner through his
combination of varying line length and the application of a lumped
impedance along the line.

Double Stub Tuners have a greater range of matching and are fixtures
in the feedline rather than moveable when using a single stub. The
art of tuning Double Stubs (on both sides of item under test, an
attenuator say) is slow and precise like a japanese tea ceremony.

73's
Richard Clark, KB7QHC

3002. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 19:37:10 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <dn1ttugtsretjdlu6qdvq5h318h3aotrlo@4ax.com>
Source record: 130834

On 22 Nov 2002 07:28:44 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>a 'stub' circuit that generates

No.

>'profitable'

No. [not even unprofitable]

>radiation.

No.

73's
Richard Clark, KB7QHC

3003. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 19:51:16 UTC
From: W6DKN <w6dkn-nospam-@qsl.net>
Message-ID: <UNvD9.3740$EY.30@fe01>
Source record: 130835
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"BDKING" <kingrat@buckeye-express.com> wrote in message
news:MPG.1848474b4628603e989794@news.buckeye-express.com...

> A lot of people get turned off just by listening to some of the nonsense
> that goes on the air, and some get turned off after they get a no code
> ticket, and are ignored, trashed, ridiculed, talked over, etc by older
> hams, almost always of 20+ years experience, and almost always they seem
> to be Extras.

The only way this could happen to a no code tech is on a repeater (unless
he is operating out of class on another band - and then he *should* be
ignored or otherwise enticed to cease transmitting).

But basing you opinions on a very limited segment of the hobby (repeaters)
is very misleading. Repeaters (especially in larger metro areas) are often
abused by all license classes, and many "old timers" think of them as
something akin to licensed CB anyway. Try working simplex or SSB instead,
you'll find a very different group of hams.

> If anyone should have their "plug pulled", it should be
> these guys. They have no excuses. The most local incident I can
> remember was when several hams in Detroit purposely interfered with
> anyone who tried to use the repeater having a call issued after the NO
> code was introed.

Repeaters again...

> This went on for some time, then they must have gotten
> some kind of warning, since it just suddenly stopped. AS a victim of
> these guys, I think something more should have been done. Andyes, I did
> make a complaint, complete with tapes of their nonsense.
>
>
> BDK, no more CW for me, finally, it's over..

And your callsign is?

73 de W6DKN

3004. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 19:52:42 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <o82ttu47bimdi41i3p6ohq6270muj4k1s2@4ax.com>
Source record: 130836

On 22 Nov 2002 08:48:32 -0800, anandnavaneeth@hotmail.com (anand)
wrote:

>Hi,
> I need some info on coplanar patch antenna. It seems to be a
>interesting topic and only few papers are available. I would really
>appreciate if someone provide me with some details.
>
>Thanks in advance.

Hi Anad,

So few papers? Sounds like there's room enough for you to wade right
in and start writing your own.

You might start right now in telling us why you think it is an
interesting topic. You could then summarize the results of your
reading. And then you could offer an analysis. [and if you respect
our opinion, you show it with these gestures]

Three sentences, paragraphs, pages, chapters or volumes are merely
refrains of the same tune. Give us the hardest part of this harmony:
three sentences.

73's
Richard Clark, KB7QHC

3005. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 19:57:01 UTC
From: dplatt@radagast.org
Message-ID: <utt30d4p88in0d@corp.supernews.com>
Source record: 130837

In article <3275-3DDE3ABF-352@storefull-2315.public.lawson.webtv.net>,
Richard Harrison <richardharrison@webtv.net> wrote:

>"Didn`t read up on the World Trade Center disaster support did you."
>
>I appreciate whatever ham radio did to alleviate 9-11-1.
>
>I expect most ham messages were of the "Aunt Tessie says she`s OK"
>variety. The authorities likely wouldn`t allow hams entry to the scene.

You're incorrect, Richard.

Amateurs _were_ on the scene, supporting the rescue and relief effort very extensively. Amateurs rode with the ERVs ("emergency response vehicles") out to the actual damage sites, staffed an extensive emergency-communications center, went out to the various shelters set up in churches and schools, and worked closely with the official fire and rescue services and with the Red Cross.

Dig around on the Web for the articles written by Bart Lee KV6LEE. He was there.

>In my area, public authorities have elaborate mobile communications
>centers ready to roll to any disaster, even for loan out of state. Here,
>they also have dispersed communications centers ready to contact the
>mobile centers. Hired personnel are ready to expertly handle
>communications and perform under threat of job loss or hope of
>commendation and salery increase.

In my area (specifically, Mountain View CA), the city's emergency services coordinator works actively to recruit amateur-radio assistance. City residents who have gone through the city-funded 8-week CERT training program are encouraged to work with local amateurs and to get amateur licenses themselves. There are several dozen of us who have gone through the background checks, fingerprinting, and swearing-in process to become DSWs (Disaster Service Workers) registered with both the city and with Santa Clara County.

Here in the Silicon Valley, a large percentage of the employees of any given city don't live _in_ the city - they live miles away where the housing is at least slightly affordable. I was told that precisely _one_ Mountain View firefighter lives in Mountain View - the rest commute from up to 30 miles away. In the case of a real disaster, the city's public service departments are likely to be severely understaffed for the first few days - hence, the city's strong

interest in having its residents available to provide first-level disaster support (via CERT training and neighborhood groups) and communications (via amateur radio).

In the CERT training I just completed, the firefighters and police and emergency-services staff kept reiterating: "In the case of a real disaster, figure that you and your neighbors are going to be on your own for the first three days."

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

3006. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 20:04:33 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <r33ttus7bioodq6foo93qbjjhli22ier7t@4ax.com>
Source record: 130838

On Fri, 22 Nov 2002 13:11:46 -0500, Bill Ogden <ogden@us.ibm.com>
wrote:

>This is not much "counterpoise mass" at
>the top.
>
>I can connect the half-sloper to the top of the tower (55' level) or to
>the top of the middle section (37' level). Which is better? I am
>concerned about the need for "counterpoise" above the attachment point
>and also about any side effects on the quad. (Would a 10' whip above the
>quad help anything?)
>

Hi Bill,

The significance of this counterpoise/mass you speak of is lost on me.

Otherwise, your half-sloper's application at 80 and 160 is complicated
by the proximity of the quad (perhaps that mass you speak of). As
life is a complex web already, this proximity is benign in comparison.
Yes it will distort your pattern and disturb the tune of its match -
but not so much that any one but you is going to notice it.

37' or 55'? 55'! [but the sloper may disturb the quad]
10' whip? why not? Can you make it 21'?

73's
Richard Clark, KB7QHC

3007. EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 20:19:06 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <3j3ttu0vqmf2kdapt1knp7qcvi05j3qf85@4ax.com>
Source record: 130839

I recently started playing with EZNEC, and ran into a problem that
should be easily solved, but I can't figure it out.

When I take a 1/4 wave vertical over "real ground", with the lower end
of the wire at the origin (in "ground", according to the wires list).,
and raise it just a tiny fraction of a meter, it goes from nearly zero
reactance to several thousand ohms. I assume that by raising the wire
the source looses its grounding, so I tried creating a second (very
small) wire with one end at the origin (in ground), and a transmission
line between the top of that wire and the radiator. This gave the
same high reactance.

Can someone tell me what I'm doing wrong?

Thanks.

--Mike

------------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

3008. Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 20:28:28 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ss4ttu84us7aqlrqa5pkr6kh4eaaf3nkca@4ax.com>
Source record: 130840

On Fri, 22 Nov 2002 12:19:06 -0800, Mike <scifiguy at starband dot
net> wrote:

>Can someone tell me what I'm doing wrong?
>
>Thanks.
>
>--Mike
>

Hi Mike,

It could be you are disregarding the warning that popped up somewhere
along the line.

73's
Richard Clark, KB7QHC

3009. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 20:28:49 UTC
From: pm4hire@excite.com
Message-ID: <52a66032.0211221228.16b8acf3@posting.google.com>
Source record: 130841
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

In this day and age, requiring folks to do code is
pure bullshit. Do we ask computer science majors to
write code in assembly language or know DOS?

HELL NO!

Unfortunately, the ham radio community is so far behind
the times that these guys don't even know what day it is.

Give your favorite ham radio operator a dixie cup and
string, b/c that's where he or she is from a technological
point of view.

The ham radio community will continue to shrink unless
it gets its collective heads out of its asses.

Hey guys, it is 2002

3010. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 20:59:47 UTC
From: K&#65533;HB <k&#65533;hb@arrl.org>
Message-ID: <7VwD9.4349$OZ4.427680@newsread1.prod.itd.earthlink.net>
Source record: 130842
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Tom Welch" <pm4hire@excite.com> wrote
:
: The ham radio community will continue to shrink unless
: it gets its collective heads out of its asses.
:

"continue to shrink"????

Actually there are more licensed hams today than ever before in history.

Doncha just hate it when someone introduces a fact and ruins your rant?

With all kind wishes,

Hans, K0HB
--
Licensed for 40 years and it just keeps getting better and better.

3011. Re: Grounding chimney mount antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 21:01:22 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211221301.4589e568@posting.google.com>
Source record: 130843

H Johnson <classy-hjohnson@daystardev.dyndns.org> wrote in message news:<fbjstu8uhkoubcsasdeaf4htrcc7poi3i5@4ax.com>...
> I am considering placing my antenna (ham and scanner) on a mast
> mounted to my chimney and driving a ground rod down close to where the
> coax will be entering the eave.
>
> For grounding, do I need to ground all the coax braid feed lines
> (eventually there will be three feed lines) to the ground rod? This
> would create a "U" shaped cable path outside the house since the coax
> would have to go down to the ground then back up into the eave.
>
> Or is running a solid copper ground wire from the mast to the ground
> sufficient? Or do I need to do all the above.
>
> Any suggestions/experience would be greatly appreciated.
>
> - H. Johnson

You want a #6 wire from the mast to ground with as little turns as possible. As far as grounding the feedlines at the entrance, I'm kind of mixed on this. If you don't use suppressors, grounding the lines in itself is not likely to save your gear from a strike to the antenna. It probably would reduce the energy to a lower level, but I would think it will still fry the radios unless you use suppressors. I would consider that optional, and really up to you. If you intend to leave the radios hooked up, I would probably think about grounding the lines. If you unhook and throw outside in bad wx, I probably wouldn't bother. If you do leave them hooked up all the time, I would strongly suggest a ground bulkhead at the entrance with all lines grounded with gas tube suppressors. There is lots of lightning info if you do a google search. Also check the polyphaser web site. MK

3012. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 21:05:05 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211221305.2b44dd55@posting.google.com>
Source record: 130844

"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:<ark4ko$8rg$1@slb3.atl.mindspring.net>...
> Reg:
>
> Thanks for the new program.
>
snip
>
> I have been wondering for a while, and I have asked Cecil about this on the
> NG, but didn't seem to get his interest,
> whether stubs might be used in an economical adjustable matching scheme
> similar to Cecil's adjustable length
> transmission line system.
>
snip
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL
>
Peter, all of this is getting very close to what I have been
trying to explain for many years and I have also tried to get
Cecil's attention to lure him away from his matching design.
If one looks at a closed end stub on an antenna it is exactly the same
circuit as a loop where the severed radiator gap provides a
capacitance.
If you look at a extended Zepp there are two main radiation curves,
Between these two curves the dipole portion and the stub is purely
for balancing to make a impedance match. If this space was replaced
by the capacitive loaded loop form of stub it will provide the same
varying impedance matching function by varying the capacitor.
In addition to replacing the varying stub length aproach taken by
Cecil it will also provide additional horizontal radiation that is
useful rather than 'wasting' it on vertical polarisation and non
additive radiation.
Cecil, what does one have to do to get you and others to unlock the
old
shackles and think anew?
Art

3013. Re: Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 21:18:26 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <c97ttu096q79i0a0fphd1kku7fl9k87vsa@4ax.com>
Source record: 130845

I ran Outputs/Guideline Check, and it output "All Guideline Checks
ok". I also tried reloading it, but no warnings were issued on load
either. Is there another place I should look for a warning?

On Fri, 22 Nov 2002 20:28:28 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

>On Fri, 22 Nov 2002 12:19:06 -0800, Mike <scifiguy at starband dot
>net> wrote:
>
>>Can someone tell me what I'm doing wrong?
>>
>>Thanks.
>>
>>--Mike
>>
>
>Hi Mike,
>
>It could be you are disregarding the warning that popped up somewhere
>along the line.
>
>73's
>Richard Clark, KB7QHC

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3014. Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 21:38:04 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <09Cdnf8VQbvKPkOgXTWc3w@comcast.com>
Source record: 130846

Mike,

I am having like problems with EZNEC-3 and verticals. Unlike the old version, there seems no way to tell it to connect the source to the end of the wire. You can tell it 0% from end, but it does not put it there. Even when I think I got it right, it tells me the impedance at resonance is around 20 ohms. Maybe Roy will read this....

Tam/WB2TT

_____
"Mike" <scifiguy at starband dot net> wrote in message news:3j3ttu0vqmf2kdapt1knp7qcvi05j3qf85@4ax.com...
> I recently started playing with EZNEC, and ran into a problem that
> should be easily solved, but I can't figure it out.
>
> When I take a 1/4 wave vertical over "real ground", with the lower end
> of the wire at the origin (in "ground", according to the wires list).,
> and raise it just a tiny fraction of a meter, it goes from nearly zero
> reactance to several thousand ohms. I assume that by raising the wire
> the source looses its grounding, so I tried creating a second (very
> small) wire with one end at the origin (in ground), and a transmission
> line between the top of that wire and the radiator. This gave the
> same high reactance.
>
> Can someone tell me what I'm doing wrong?
>
> Thanks.
>
> --Mike
>
>
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3015. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 21:44:24 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDEA538.AA09FCA8@ieee.org>
Source record: 130847

Art Unwin KB9MZ wrote:
> Gentlemen it seems that you all have a great understanding of 'stubs'
> and what they can do. Why is it that you cannot consider a parallel
> circuit in the same light? With your knoweledge and understanding it
> should be very easy for you
> to look at a parallel circuit(or loop if you wish to call it that)and
> compare its function to that of a 'stub' circuit that generates
> 'profitable' radiation.
> I for one would benefit greatly for your inputs on such a comparison
> if you could give it the time.

Virtually any parallel stub used on a single frequency can be replaced
with its equivalent parallel 'L' or 'C'. The thing that makes stubs easy
to understand is that they don't radiate (much). However, I assume your
loop does indeed radiate which makes it much more difficult to analyze
than a simple stub. The easiest way I know to predict the performance of
a leaky loop stub is to model it.
--
cheers, CAM http://www.qsl.net/w5dxp

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3016. Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 21:45:04 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <599ttu8atgfpq48dkm3i5hub1863t0tani@4ax.com>
Source record: 130848

I found another strange thing happening with regard to segmentation.

If I take vert1.ez, raise the radiator 0.5 meters, and attach a transmission line to a short wire connected to ground, the impedance the program calculates at 7MHz is 0.381-j299.4. If I let it do a conservative autosegment, it changes from 10 segments to 5, and produces an impedance of 0.4535-j196. If I change the segmentation to 50, it produces 0.1183-j518.8. None of these arrangements produce a guideline check warning.

I would have thought that more segmentation would result in a more accurate model, but this looks wrong at any segmentation setting.

By the way, eliminating the transmission line to ground wire gives very high capacitance. Again, I assume this is because I've disconnected the ground from the low side of the source.

Please help.

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3017. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 21:51:43 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDEA6EF.3C099E21@ieee.org>
Source record: 130849

Art Unwin KB9MZ wrote:
> Cecil, what does one have to do to get you and others to unlock the
> old shackles and think anew?

Art, right now I'm tied up in a web page design with a deadline.
--
cheers, CAM http://www.qsl.net/w5dxp

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3018. Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 21:53:37 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDEA761.DE6AA21B@ieee.org>
Source record: 130850

Mike wrote:
> I ran Outputs/Guideline Check, and it output "All Guideline Checks
> ok". I also tried reloading it, but no warnings were issued on load
> either. Is there another place I should look for a warning?

Warnings against what you are trying to do are in the manual.
--
cheers, CAM http://www.qsl.net/w5dxp

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3019. Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 21:56:19 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDEA803.2ACF7DCC@ieee.org>
Source record: 130851

Tarmo Tammaru wrote:
> I am having like problems with EZNEC-3 and verticals. Unlike the old
> version, there seems no way to tell it to connect the source to the end of
> the wire. You can tell it 0% from end, but it does not put it there.

You can put the source at the junction of two wires by using the SI option.
--
cheers, CAM http://www.qsl.net/w5dxp

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3020. Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 22:00:50 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDEA912.637E3C90@ieee.org>
Source record: 130852

Mike wrote:
> Please help.

Did you read the manual about when to use Fast, High accuracy,
and Mininec ground?
--
cheers, CAM http://www.qsl.net/w5dxp

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3021. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 22:09:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uttao07nq8ugf6@corp.supernews.com>
Source record: 130853

Art Unwin KB9MZ wrote:
>
> Richard I believe the term 'skin effect' is being somewhat misused
> and it could be by me ! Radiation will not occur because of the flow
> of
> current alone even tho the electrons do accelerate and deccellerate.
> . . .

A DC current produces no radiation for the reason you cite. However, when the current is alternating, the electrons are sho' 'nuff accellerating, and do produce a field. (Current is simply the rate of change of charge, so the rate of change of the current is the charge accelleration.) The field can be confined, as inside a coaxial transmission line or metal box, in which case radiation doesn't make it outside the line or box. But the presence of alternating current on a conductor does guarantee radiation.

Roy Lewallen, W7EL

3022. Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 22:13:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uttb0nsvsl7d81@corp.supernews.com>
Source record: 130854

In the EZNEC manual (click "Help", then "Contents"), Look in index under "Ground, Connecting Wires". You'll see several choices when you click it. Choose "Connecting Wires to Ground".

Roy Lewallen, W7EL

Mike wrote:
> I recently started playing with EZNEC, and ran into a problem that
> should be easily solved, but I can't figure it out.
>
> When I take a 1/4 wave vertical over "real ground", with the lower end
> of the wire at the origin (in "ground", according to the wires list).,
> and raise it just a tiny fraction of a meter, it goes from nearly zero
> reactance to several thousand ohms. I assume that by raising the wire
> the source looses its grounding, so I tried creating a second (very
> small) wire with one end at the origin (in ground), and a transmission
> line between the top of that wire and the radiator. This gave the
> same high reactance.
>
> Can someone tell me what I'm doing wrong?
>
> Thanks.
>
> --Mike
>
>
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3023. Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 22:15:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uttb4roba4sibe@corp.supernews.com>
Source record: 130855

In the EZNEC manual (click "Help", then "Contents"), read the section Building The Model/Using Sources/About Sources.

Roy Lewallen, W7EL

Tarmo Tammaru wrote:
> Mike,
>
> I am having like problems with EZNEC-3 and verticals. Unlike the old
> version, there seems no way to tell it to connect the source to the end of
> the wire. You can tell it 0% from end, but it does not put it there. Even
> when I think I got it right, it tells me the impedance at resonance is
> around 20 ohms. Maybe Roy will read this....
>
> Tam/WB2TT
> _____
> "Mike" <scifiguy at starband dot net> wrote in message
> news:3j3ttu0vqmf2kdapt1knp7qcvi05j3qf85@4ax.com...
>
>>I recently started playing with EZNEC, and ran into a problem that
>>should be easily solved, but I can't figure it out.
>>
>>When I take a 1/4 wave vertical over "real ground", with the lower end
>>of the wire at the origin (in "ground", according to the wires list).,
>>and raise it just a tiny fraction of a meter, it goes from nearly zero
>>reactance to several thousand ohms. I assume that by raising the wire
>>the source looses its grounding, so I tried creating a second (very
>>small) wire with one end at the origin (in ground), and a transmission
>>line between the top of that wire and the radiator. This gave the
>>same high reactance.
>>
>>Can someone tell me what I'm doing wrong?
>>
>>Thanks.
>>
>>--Mike
>>
>>
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> =-----
>
>

3024. Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 22:30:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uttc6esk9dlc17@corp.supernews.com>
Source record: 130857

Connecting a transmission line to a short wire is like leaving it open circuited, even if one end of the short wire is connected to ground or something else. This is because the transmission line model doesn't allow common mode currents. So any current flowing out of one end of the short wire would have to be accompanied by an equal and opposite current flowing into the other end. One end is open, so no current flows either direction.

Increasing the number of segments doesn't always improve accuracy. A condition where it doesn't is when wires of dissimilar diameter are connected. Accuracy is best in that case if the segment lengths near the connections are as long as possible. Another is when the segment length is too short compared to the wire diameter. In most other cases, though, more segments will give better results. It's not clear just what you're measuring, and how you're determining which result is the most accurate.

You mention high capacitance. Where? If you've left the source at the end of the wire after you raised the vertical, that's what you should expect. If you have an antenna analyzer, connect the center to a quarter wavelength piece of wire (at HF, where the analyzer is electrically small) and leave the ground side open. Then raise it up a meter or so, to reduce its capacitance to ground. You'll get a similar reading.

I'm seeing that people are relying too much on the guideline checks, expecting a clean report to mean that nothing could possibly be wrong with the model. It doesn't. In the EZNEC manual, look in the index under "Guideline Check", and read that section to see just what this feature does.

Roy Lewallen, W7EL

Mike wrote:
> I found another strange thing happening with regard to segmentation.
>
> If I take vert1.ez, raise the radiator 0.5 meters, and attach a
> transmission line to a short wire connected to ground, the impedance
> the program calculates at 7MHz is 0.381-j299.4. If I let it do a
> conservative autosegment, it changes from 10 segments to 5, and
> produces an impedance of 0.4535-j196. If I change the segmentation to
> 50, it produces 0.1183-j518.8. None of these arrangements produce a
> guideline check warning.
>
> I would have thought that more segmentation would result in a more
> accurate model, but this looks wrong at any segmentation setting.
>
> By the way, eliminating the transmission line to ground wire gives
> very high capacitance. Again, I assume this is because I've

> disconnected the ground from the low side of the source.
>
> Please help.
>
>
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3025. Re: Re: EZNEC 3.0 Above Ground Vertical Question - Vert1 Above Ground.ez (0/1)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 22:32:28 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <ddbttuks2d2po35r3p9mh8tiod02tvs76j@4ax.com>
Source record: 130856

Hi Roy,

I appreciate you taking the time to respond to my post. I figured someone else might have run across a similar problem, so I should ask here, rather than send you an email.

I looked at the help where you indicated, but it just says to use MININEC ground, which I'm already doing. Unless I am misunderstanding the help file, ground is as it should be.

I attached the .ez file, in case you'd be willing to look at it. I understand you don't have time to check everyone's problems, but I'd really appreciate you taking a look.

Thanks.

--Mike

On Fri, 22 Nov 2002 14:13:42 -0800, Roy Lewallen <w7el@eznec.com> wrote:

>In the EZNEC manual (click "Help", then "Contents"), Look in index under
>"Ground, Connecting Wires". You'll see several choices when you click
>it. Choose "Connecting Wires to Ground".
>
>Roy Lewallen, W7EL
>

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3026. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 22:38:44 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <armbljeul1@helle.btinternet.com>
Source record: 130858

"Richard Clark" wrote

> >a 'stub' circuit that generates
>
> No.
>
> >'profitable'
>
> No. [not even unprofitable]
>
> >radiation.
>
> No.

==========

Rich, wrong again!

You really must desist from disseminating mis-information and stick to your specialism - Italian Clowns.

Twin, spaced-conductor stub lines, as used in impedance transformers, do radiate. Radiation can be significant specially at VHF and UHF where most of these transformers are used.

For not-so-wide conductor spacing radiation resistance is approximately -

20 * Square(S / Lambda) ohms,

where S is the conductor spacing. It tends to be independent of line length. Polarisation is in the plane of, and at right-angles to the conductors.

(As spacing increases beyond 1/10th wavelength the line begins to behave as a pair of parallel longwires. Radiation also occurs broadside to the line with lobes all over the shop.)

Loss due to radiation resistance degrades Q of the reactance (inductive or capacitive) which the stub is intended to simulate.

Short-circuit Xin = Zo * Tan(Theta) ohms

and Open-circuit Xin = minus Zo / Tan(Theta) ohms.

where Theta = 360 * Lambda degrees and Lamda = line length in wavelengths.

Which is simplicity itself until one attempts to take line loss into account. The Smith chart then falls flat on its face.

Another practical effect, nearer to home, is when a wide-spaced twin transmission line feeds the center of a half-wave dipole. The resonant frequency is still calculated from the distance between the dipole ends and not from the length of the wire. Radiation which no longer occurs from the gap in the center of the antenna wire is replaced by radiation from the feedline of just the right strength and polarisation.

Is this another example of radiation from a vacant space which carries no current ? So much for the old-wives' tales about radiation occurring mostly from the center of a dipole because that is where the greatest current flows. The system behaves as if the wire actually exists.

At VHF and UHF coaxial structures become more common. Being self-screening they radiate less and so have higher Q when incorprated in filters. Coaxial stubs have highest Q when inside a cylindrical can, sometines terminated with a trimmer capacitor. The name may be changed to receiver input tuned circuit. The inner conductor may even become a helix. But it's still a stub line!

Reg, G4FGQ

3027. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 22:38:45 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <armblkeul2@helle.btinternet.com>
Source record: 130859

```
> To clarify skin effect, I suggest the 1955 edition of Terman, page 21.
>
> To clarify transmission lines, I suggest page 82 of the 1955 Terman
> opus.
>
> To clarify matching with single and multiple stubs, I suggest page 108
> of the 1955 Terman opus.
================================

Suppose Art hasn't got Terman ! Then what does he do ? ;o) ;o)
---
Reg
```

3028. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 23:17:52 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ioettu05gieck1fd9u3qokvkadjk4nr69k@4ax.com>
Source record: 130860

On Fri, 22 Nov 2002 22:38:44 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>Rich, wrong again!
>
Ah Punchinello!

There you go again, restating the bleedin' obvious and layering it on
with bafflegab like you were writing for the civil service.

73's
Richard Clark, KB7QHC

3029. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 23:28:19 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211221528.47c203ca@posting.google.com>
Source record: 130861

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<19717-3DDE6955-378@storefull-2311.public.lawson.webtv.net>...
> Art, KB9MZ wrote:
> "If one uses a tube that has a thickness of the so called "skin depth",
> for a given frequency the remaining energy will not move to the inner
> skin surface to radiate but will continue to "struggle" to the outer
> surface where it has the freedom to radiate."
>
> A thick conductive tube prohibits r-f current invasion to any
> significant depth. R-F can`t penetrate such a tube. Coax and waveguide
> don`t leak r-f if they are any good.
>
> If such a tube has a wire running through it, radiation is shielded
> between the wire and outside world.
>
> Current flow inside the pipe on the outer surface of the wire and the
> pipe`s inner surface operates as a transmission line. Current is
> restrained by Zo which ideally is the sq. rt. of L/C.
>
> Without a wire through the pipe, the pipe will accommodate and propagate
> only wavelengths smaller than a dimension of 1/2-wave for the largest
> size of the pipe.
>
> In any case, not much radiation escapes a good feedline accidentally.
>
> A radiator has both radiation and loss resistances which remove energy.
>
> To clarify doublet matching, I suggest the ARRL Antenna Book, edition
> 19, page 18-5.
>
> To clarify skin effect, I suggest the 1955 edition of Terman, page 21.
>
> To clarify transmission lines, I suggest page 82 of the 1955 Terman
> opus.
>
> To clarify matching with single and multiple stubs, I suggest page 108
> of the 1955 Terman opus.
>
> Best regards, Richard Harrison, KB5WZI

Richard, where did I differ from your post ?
Seems like you said the same thing.
Art

3030. Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 23:28:50 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <4ffttuc3f6bfcm9867orgbvbl3a76u73ru@4ax.com>
Source record: 130862

On Fri, 22 Nov 2002 13:18:26 -0800, Mike <scifiguy at starband dot
net> wrote:

>I ran Outputs/Guideline Check, and it output "All Guideline Checks
>ok". I also tried reloading it, but no warnings were issued on load
>either. Is there another place I should look for a warning?
>
Hi Mike,

During certain circumstances, the choice of wire position will invoke
a warning dialog window. This does not appear to be one of those
instances.

73's
Richard Clark, KB7QHC

3031. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 23:35:18 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <armevm$om8$1@venus.btinternet.com>
Source record: 130864

> Cecil, what does one have to do to get you and others to unlock the
> old
> shackles and think anew?
> Art
==========
Cecil, you never told us you were in a chain gang. I thought Texas had abolished them years back. You have our undying admiration for your proven success on the design of no-tuner transmission lines achieved under such an arduous restriction.

By the way, what was your crime? And are you allowed to receive food parcels?

Reg

3032. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 23:35:19 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <armevm$om8$2@venus.btinternet.com>
Source record: 130863

The easiest way I know to predict the performance of
> a leaky loop stub is to model it.
==========
At last I think I'm getting the picture.

If that is what Art's invention is it is easily modelled.

If it's a dipole closely coupled to a largish square or rectangular loop then the coupling coefficient between the primary and secondary circuits can be calculated. The secondary cct is tuned. It's resonant. The primary circuit, the loop, is untuned. The primary and secondary currents, efficiency and other characteristics can be calculated.

From what I remember from previous threads broadening of bandwidth was the design objective. But there's no need to do any calculations - the bandwidth (Q) of a single tuned remains the same regardless of how the generator is coupled/matched to it.

Don't ask me quote a theorem.

Reg

3033. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 23:53:44 UTC
From: fractenna@aol.com
Message-ID: <20021122185344.01374.00000024@mb-cr.aol.com>
Source record: 130866

>Hi,
> I need some info on coplanar patch antenna. It seems to be a
>interesting topic and only few papers are available. I would really
>appreciate if someone provide me with some details.
>
>Thanks in advance.
>

Is this a school project?

73
Chip N1IR

3034. Re: LEGAL CABLE DESCRAMBLER

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-22 23:58:52 UTC
From: Artie DeCoe <Artie@dcoe.net>
Message-ID: <ErudnePRUewZWUOgXTWcoQ@comcast.com>
Source record: 130867
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors

Why yes, it is so legal that he has to spell certain words with extra
p.u.n.c.t.u.a.t.i.o.n so search engines don't "hit" on them and rat him out.
I took them all out, so I hope this helps:

> <iwggio@sewrwq32.com> wrote in message
> news:mLjC9.185684$LK5.3271077@newsfeed.slurp.net...
> > L.EGAL CABLE TV DESCRAMBLER
> >
> > Want to watch Sporting Events?--Movies?--Pay-Per-View??
> >
> > *This is the Famous R-O Shack TV Descrambler
> > You can assemble it from Radio Shack parts for about $12 to $15.
> >
> > We Send You:
> > 1, E-Z To follow Assembly Instructions.
> > 2. E-Z To read Original Drawings.
> > 3. Total Parts List.
> >
> > **** PLUS SOMETHING NEW YOU MUST HAVE! ****
> > Something you can't do without.
> >
> > THE UP-TO-DATE 6 PAGE REPORT:
> > USING A DESCRAMBLER LEGALLY
> >
> > Warning: You should not build a TV Descrambler
> > without reading this report first.
> >
> > Frequently Asked Questions--CABLE TV DESCRAMBLER
> >
> > Q: Will the descrambler work on Fiber, TCI,
> > Jarrod and satellite systems?
> > A: The answer is YES. In respect to satellite,
> > you just get more stuff! There is one exception:
> > The descrambler will not work with DSS satellite.
> >
> > Q: Do I need a converter box?
> > A: This plan works with or without a converter box.
> > Specific instructions are included in the plans for each!
> > Q: Can the cable company detect that I have the descrambler?
> >
> > A: No, the signal descrambles right at the box and does
> > not move back through the line!
> >

> > Q: Do I have to alter my existing cable system,
> > television or VCR?
> > A: The answer is no!
> >
> > Q: Does this work with my remote control?
> > A: The answer is yes. The descrambler is
> > manually controlled--but very easy to use!
> >
> > Q: Can you email me the plans?
> > A: No the program comes with an easy to follow picture guide.
> >
> > Q: Does this work everywhere across the country?
> > A: Yes, everywhere in the USA plus England,
> > Brazil, Canada and other countries!
> >
> > Q: Is this deal guaranteed?
> > A: Yes, if you are unhappy for any reason we will refund your money.
> >
> > Q: When I order, when will I get my package?
> > A: We mail out all orders within 24 hours of receiving them.
> >
> > Q: How much does it cost to get the instruction
> > plans, the easy to follow diagram, and most
> > important of all the "Using a Descrambler LEGALLY Report".
> > A: You get the complete 6 page report and instruction package all for
> just--$10.00
> >
> > Q: How do I order?
> > A: Fill out form below and send it, along
> > with your $10.00 payment to:
> >
> > SMG PUBLISHING INC
> > 1340 East Vine Str #218
> > Kissimmee Fl 34744
> >
> > (Cash, Check or Money Order.)
> >
> > (Florida residents include 7% Florida State Sales Tax)
> >
> > (All orders outside the U.S.A. add $5.00)
> >
> >
> > PRINT YOUR:
> >
> > NAME_____
> >
> > ADDRESS_____
> >
> > CITY/STATE/ZIP_____
> >

> > E-MAIl ADDRESS_____
> >
> > We are NOT ASSOCIATED in any way with RADIOSHACK.
> > Neither the design nor instructions were developed
> > by, are sold by, or are endorsed by RadioShack.
> > Parts for this fine-tuning device are available
> > at many electronics stores (including Radio Shack)
> > This is not a Radio Shack product.
> >
>
yqpwwynlgbtnzscoydmvuqykkgcqjunlrtcqvirkbiwftbkvloerqzhmdmoxltzwvwwscctvtcwn
>
xkvyqforhffbmvudxsttykuuqgbwyrncnrsdclkmsgyidtoywpbforomnpvqeoqpovhkgrntbyvk
>
mrrbigekffymtekjvdyrdtubshreghemezxbgqlmjhulktbdpshzfipeysriiefsqbbptqcqpkwz
>
libcywkfvmxwokhxjlfgmivkuekzmyxvytqllwczcdckcqgqjbmfgfdcmcrtmitozzdiofdyydiw
> yykckvhujcphujfzdwewnxvwvfhvmkxmurmylvxdljdrtxhyzdwlplzi
> >
>
>
>

3035. Re: Verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 00:03:07 UTC
From: "Michael Weissman, M.D." <mikew@removemecloud9.net>
Message-ID: <3DDEC5BB.9080708@removemecloud9.net>
Source record: 130868

I've had pretty good luck with the GAP Challenger. Using it for the
past 4 or 5 months. Lots of DX.

Mike
K2CBI

Bill Bischoff wrote:
> Because of deed restrictions and my homeowners association I am limited to
> putting up a vertical and dipole. Assuming that I will install a vertical, can
> group members provide me with recommendations and assessments of the various
> antennas available. I will be using one with uses a counterpoise system rather
> than ground radials.
>
> Thanks,
>
> Bill
> WS4B

3036. Re: Info on RX noise bridge from Ham Radio Magazine

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 00:03:24 UTC
From: starsekr@aol.com
Message-ID: <f2828edc.0211221603.42fdd08d@posting.google.com>
Source record: 130769

kiddi@marel.is (Kristinn Andersen) wrote in message
news:<b7cca008.0211211744.3c1ea1c3@posting.google.com>...
> Some years back I constructed an RX noise bridge from an article in
> Ham Radio Magazine. The article appeared probably sometime in the
> 1980's, but possibly even back in the late 70's.
>
> It looks like I have lost this article, so any info would be
> appreciated.
>
> 73 de TF3KX, Kristinn

Kristinn,
There is an online index of HR magazine at
http://webhome.idirect.com/~griffith/hrindex.htm

You might try to find the article name and then ask if someone can
copy a few pages for you.

73's de KA6TPR, Jim

3037. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 00:04:23 UTC
From: BDKING <kingrat@buckeye-express.com>
Message-ID: <MPG.1848900e38496e55989795@news.buckeye-express.com>
Source record: 130865
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

In article <UNvD9.3740$EY.30@fe01>, w6dkn-nospam-@qsl.net says...
>
> "BDKING" <kingrat@buckeye-express.com> wrote in message
> news:MPG.1848474b4628603e989794@news.buckeye-express.com...
>
> > A lot of people get turned off just by listening to some of the nonsense
> > that goes on the air, and some get turned off after they get a no code
> > ticket, and are ignored, trashed, ridiculed, talked over, etc by older
> > hams, almost always of 20+ years experience, and almost always they seem
> > to be Extras.
>
> The only way this could happen to a no code tech is on a repeater (unless
> he is operating out of class on another band - and then he *should* be
> ignored or otherwise enticed to cease transmitting).

Yeah, it was on 2 meters. This doesn't happen a lot like it did back 10
years ago, but it still happens, and it's always veteran hams that do it,
not no code techs or anyone recently licensed.
>
> But basing you opinions on a very limited segment of the hobby (repeaters)
> is very misleading. Repeaters (especially in larger metro areas) are often
> abused by all license classes, and many "old timers" think of them as
> something akin to licensed CB anyway. Try working simplex or SSB instead,
> you'll find a very different group of hams.

If they have a 4x4 call, they aint nocoders..
>
> > If anyone should have their "plug pulled", it should be
> > these guys. They have no excuses. The most local incident I can
> > remember was when several hams in Detroit purposely interfered with
> > anyone who tried to use the repeater having a call issued after the NO
> > code was introed.
>
> Repeaters again...

Yeah, that's where no code techs usually start out!

>
> > This went on for some time, then they must have gotten
> > some kind of warning, since it just suddenly stopped. AS a victim of
> > these guys, I think something more should have been done. Andyes, I did
> > make a complaint, complete with tapes of their nonsense.
> >
> >

> > BDK, no more CW for me, finally, it's over..
>
> And your callsign is?
>
> 73 de W6DKN
>
>

I've had two, a Novice 30 years ago, and one of them hated No code techs since 91, and I won't post them here, for various reasons. I'm sure you'll trash me, but I have good reason not to. But I did the 5 WPM CW thing already, and maybe I'll upgrade one of these days, but it doesn't have the draw it did ten years ago. Too bad...

BDK

3038. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 00:19:52 UTC
From: W6DKN <w6dkn-nospam-@qsl.net>
Message-ID: <IJzD9.3848$EY.3229@fe01>
Source record: 130770
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"BDKING" <kingrat@buckeye-express.com> wrote in message
news:MPG.1848900e38496e55989795@news.buckeye-express.com...
> > And your callsign is?
> >
> > 73 de W6DKN
> >
> >
>
> I've had two, a Novice 30 years ago, and one of them hated No code techs
> since 91, and I won't post them here, for various reasons. I'm sure
> you'll trash me, but I have good reason not to. But I did the 5 WPM CW
> thing already, and maybe I'll upgrade one of these days, but it doesn't
> have the draw it did ten years ago. Too bad...
>

So, in effect, you have never experienced anything beyond basic entry level operation? That's not much scope of experience to be basing such a negative view of the hobby on.

Since you claim to have passed the 5 WPM element in the past, all you have to do is show proof of it to the examiner when you take your General (or higher) written element and you will have your HF ticket. Isn't that what you wanted, elevated privileges without having to take the code test?

73 de W6DKN

3039. Re: Verticals

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 00:34:28 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DDECD13.14BF6615@shaw.ca>
Source record: 130771

"Michael Weissman, M.D." wrote:
>
> I've had pretty good luck with the GAP Challenger. .....
> Mike
> K2CBI
>
> Bill Bischoff wrote:
> > Because of deed restrictions...
> >
> > Bill
> > WS4B

I just picked a Gap Callenger from an estate sale
for $50 (Canadian -- about 35 US). Because of
weather and other factors I have
not yet put it up, but the chap who ran it had a lot
of fun and many contacts with it. It does use radials,
but there are only 3 25 ft radials at the base, and
they can be laid out on the ground in most any fashion
(almost fractal!!!)
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3040. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 01:00:03 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <gjAD9.710$pc.144054@news.iquest.net>
Source record: 130772
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Tom Welch" <pm4hire@excite.com> wrote in message
news:52a66032.0211221228.16b8acf3@posting.google.com...
> In this day and age, requiring folks to do code is
> pure bullshit. Do we ask computer science majors to
> write code in assembly language or know DOS?
>
> HELL NO!
>
One of the biggest justifications for Ham radio licensing is
for emergency operations. It is MUCH MUCH more likely for
radiotelephone to be of immediate use (other than post-WWIII situations)
than code.

Code should be encouraged for those who like that medium, but
technical competency is much more important in general (esp for
high power operation.)

John

3041. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 01:15:17 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DDED6A5.47275D66@cwis.net>
Source record: 130773

Bill,
No counterpoise above the feed point of the slopper is
needed.
'Doc

3042. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 01:16:00 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <3DDED6D0.7020307@core.com>
Source record: 130774

That too...
Dave

Richard Harrison wrote:

>Dave, WD9BDZ wrote:
>"Actually private pilots have to requalify every two years."
>
>On their equestrian skills?
>
>Best regards, Richard Harrison, KB5WZI
>
>
>

3043. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 01:18:21 UTC
From: brianburke@juno.com
Message-ID: <f45722ac.0211221718.33d13fe8@posting.google.com>
Source record: 130775
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"W6DKN" <w6dkn-nospam-@qsl.net> wrote in message news:<UNvD9.3740$EY.30@fe01>...
> "BDKING" <kingrat@buckeye-express.com> wrote in message
> news:MPG.1848474b4628603e989794@news.buckeye-express.com...
>
> > A lot of people get turned off just by listening to some of the nonsense
> > that goes on the air, and some get turned off after they get a no code
> > ticket, and are ignored, trashed, ridiculed, talked over, etc by older
> > hams, almost always of 20+ years experience, and almost always they seem
> > to be Extras.

I've seen it.

> The only way this could happen to a no code tech is on a repeater (unless
> he is operating out of class on another band - and then he *should* be
> ignored or otherwise enticed to cease transmitting).

Lots of NCT's like fm simplex as much as the next guy. Some even use
other modes such as SSB, packet, and even CW. Why must the rudeness
only take place on repeaters? Have you never been to a club meeting
where it takes place in person?

> But basing you opinions on a very limited segment of the hobby (repeaters)
> is very misleading. Repeaters (especially in larger metro areas) are often
> abused by all license classes, and many "old timers" think of them as
> something akin to licensed CB anyway. Try working simplex or SSB instead,
> you'll find a very different group of hams.

Your comments are very limited and misleading. I've heard noisy
elitists at the Dayton Hamvention where they don't care who they
offend.

> > If anyone should have their "plug pulled", it should be
> > these guys. They have no excuses. The most local incident I can
> > remember was when several hams in Detroit purposely interfered with
> > anyone who tried to use the repeater having a call issued after the NO
> > code was introed.
>
> Repeaters again...

Limited again. But a hotspot of rudeness. I witnessed a 2by2 with
the first name Curtis berating a new ham's first QSO on the air - on a
St Louis repeater. Apalling.

> > This went on for some time, then they must have gotten
> > some kind of warning, since it just suddenly stopped. AS a victim of
> > these guys, I think something more should have been done. Andyes, I did

> > make a complaint, complete with tapes of their nonsense.
> >
> >
> > BDK, no more CW for me, finally, it's over..
>
> And your callsign is?
>
> 73 de W6DKN

Mine's N0iMD

3044. Re: Grounding chimney mount antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 01:20:07 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DDED7C7.DD6E1E2@cwis.net>
Source record: 130776

'H.J.',
Unless either antenna requires an 'RF' ground (very
unlikely), the only reason for a ground at all is for
safety (lightning protection). Provide an adequate safety
ground, then forget it.
'Doc

3045. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 01:28:02 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DDED9A2.A51C40BA@cwis.net>
Source record: 130777

Reg,
Just so that Cecil will benefit from your largess(?),
you should be aware that the Texas Penal Institutions
only allow food parcels to be delivered to inmates that
contain grits, possum, or some type of 'meat jerky'. All
food parcels that do not contain at least one of these
items are sent to the state's 'Meals on Wheels' program.
'Doc

3046. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 01:40:46 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <sVAD9.715$pc.144217@news.iquest.net>
Source record: 130779
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

"Dick Carroll" <dixie@townsqr.com> wrote in message news:ark2o4hqj0@208.207.71.154...
>
>
> "Kï¿½HB" wrote:
> >
> > We'll be looking for you to join us soon. I'll bet you can teach us a thing
> > or two.
> >
>
>
> But first he's gotta learn a thing or two.
>
Sure, I used to be a ham... (probably before alot of these readers
where born.) Had the code and everything. Additionally,
the rules and regulations were easy... The technical part was trivial
(even as a highschooler, I didn't have to study that.) Sure, my First
Phone was a little more difficult, but still technically easy (the rules and regulations
were much more difficult.) I also had NO BENEFIT of tutoring, but
simply learn and understand very quickly (still do.) There is NO EXCUSE
for IRRESPONSIBLY avoiding the demand of technical competency,
because it is the tool used to support responsible behavior on the
shared airwaves.

Learning an anachronistic and rather less useful skill, like code is mostly
a waste of a newbies time (unless they *want* to use code.) For
typical emergency situations (nowadays), radiotelephone will be much
more useful. Trying to be elitist based upon an anachronism, has mostly
the effect of creating an exclusive club and creating a barrier in the wrong
place. If anything, the barrier MUST be on the basis of being able to
operate competently (including technical competency.)

It is good that code has been dropped on the above HF frequencies, but
even HF rules could stand some revisiting by the international organizations.

For those who claim that I might need to learn something, it would be
good to learn some respect for those who have 'been there, done that.' I
do have some problems with certain fine motor skills. The problem isnt'
any better since I was young. It isn't a handicap, but the anachronism
and simple waste of time for any operation that I would be interested in
is a serious disincentive (rather than the appropriate disincentive against
technical incompetency.)

It was good to hear that ham radio is starting to realize that they need
to look towards the future, rather than try to create a false elitism based

upon an anachronistic skill. If the elitism is based upon a currently (or future) strongly useful expertise, then there is some value. Ham radio does need to continue to self-police, but also appear to be friendly.

John

3047. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 01:46:17 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <D_AD9.716$pc.144323@news.iquest.net>
Source record: 130780
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"craigm" <camenning@charter.net> wrote in message news:3DDEDE37.4060706@charter.net...
>
>
> Tom Welch wrote:
>
> > In this day and age, requiring folks to do code is
> > pure bullshit. Do we ask computer science majors to
> > write code in assembly language or know DOS?
> >
> > HELL NO!
> >
> .
>
> .
> .
>
> >
> > Hey guys, it is 2002
> >
>
> I don't know where you've been, but there are people using assembly
> language today (2002).
>
Good example: I wrote/re-wrote a significant amount of FreeBSD (the VM
code and other pieces.) Without knowing and being able to use assembly
or machine code, it would be a severe handicap for some groups of programmers.
However, there is usually an intimate relationship between machine code
and the code produced by high level languages. Understanding this relationship
and being able to exploit it can sometimes help to improve system performance.

>
> And it is for major companies, and leading edge
> products. Not all programming is Java and OO. Don't assume that
> one specific method of programming/language useless until you understand
> the reason for using it.
>
Of course.

>
> Also, don't assume that one method for transmission is inappropriate for
> all communications. Some operators prefer voice, some prefer code, that
> is their choice.
>
Agreed.

>
> Code can be thought of as a requirement so that operators have
> sufficient breadth in their understanding of radio communication. Isn't
> testing about comprehension and proficiency. These result in the
> privilege to operate a radio.
>
Of course, technical knowhow, and the ability to solve communications
problems (e.g. interference, path loss issues, reliability), are MUCH MORE
important nowadays to render code to be a quaint curiosity.

John

3048. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 01:47:35 UTC
From: craigm <camenning@charter.net>
Message-ID: <3DDEDE37.4060706@charter.net>
Source record: 130778
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Tom Welch wrote:

> In this day and age, requiring folks to do code is
> pure bullshit. Do we ask computer science majors to
> write code in assembly language or know DOS?
>
> HELL NO!
>
.

.
.

>
> Hey guys, it is 2002
>

I don't know where you've been, but there are people using assembly language today (2002). And it is for major companies, and leading edge products. Not all programming is Java and OO. Don't assume that one specific method of programming/language useless until you understand the reason for using it.

Also, don't assume that one method for transmission is inappropriate for all communications. Some operators prefer voice, some prefer code, that is their choice.

Code can be thought of as a requirement so that operators have sufficient breadth in their understanding of radio communication. Isn't testing about comprehension and proficiency. These result in the privilege to operate a radio.

(I wouldn't hire a programmer that doesn't know assembly.)

To me it is clear that code is a viable part of the hobby. When I no longer hear code in the HF bands, I may consider it to be obsolete. Since people are using it today (2002) it clearly isn't obsolete.

On the other hand arguing about this is rather pointless.

Later,

Craig

3049. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 01:53:26 UTC
From: Brenda Ann <brendad@shinbiro.com>
Message-ID: <armlia$l68$1@news1.kornet.net>
Source record: 130781
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

I'm far from a computer guru, but aren't all high level computer languages written in assembly/machine code? Aren't they all just basically interfaces between the processor (machine language) and the operator??

"John S. Dyson" <dyson@iquest.net> wrote in message news:D_AD9.716$pc.144323@news.iquest.net...
>
> "craigm" <camenning@charter.net> wrote in message news:3DDEDE37.4060706@charter.net...
> >
> >
> > Tom Welch wrote:
> >
> > > In this day and age, requiring folks to do code is
> > > pure bullshit. Do we ask computer science majors to
> > > write code in assembly language or know DOS?
> > >
> > > HELL NO!
> > >
> > .
> >
> > .
> > .
> >
> > >
> > > Hey guys, it is 2002
> > >
> >
> > I don't know where you've been, but there are people using assembly
> > language today (2002).
> >
> Good example: I wrote/re-wrote a significant amount of FreeBSD (the VM
> code and other pieces.) Without knowing and being able to use assembly
> or machine code, it would be a severe handicap for some groups of programmers.
> However, there is usually an intimate relationship between machine code
> and the code produced by high level languages. Understanding this relationship
> and being able to exploit it can sometimes help to improve system performance.
>
>
> >

> > And it is for major companies, and leading edge
> > products. Not all programming is Java and OO. Don't assume that
> > one specific method of programming/language useless until you understand
> > the reason for using it.
> >
> Of course.
>
> >
> > Also, don't assume that one method for transmission is inappropriate for
> > all communications. Some operators prefer voice, some prefer code, that
> > is their choice.
> >
> Agreed.
>
> >
> > Code can be thought of as a requirement so that operators have
> > sufficient breadth in their understanding of radio communication. Isn't
> > testing about comprehension and proficiency. These result in the
> > privilege to operate a radio.
> >
> Of course, technical knowhow, and the ability to solve communications
> problems (e.g. interference, path loss issues, reliability), are MUCH MORE
> important nowadays to render code to be a quaint curiosity.
>
> John

3050. Re: Grounding chimney mount antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 02:08:10 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <uttoohj9r4ds5d@corp.supernews.com>
Source record: 130782

In a previous life I used to install roof top TV antennas using guide 30
foot masts and we used about 1/8 inch diameter aluminum for a ground wire
with a small lightning arrestor on the twin lead. I saw many TV tuners
damaged by hits but that was the extent in addition to melting the sheathing
on the 300 ohm twinlead..

My own chimneys have been hit at least twice. First time in Denver with no
antenna but lightning found ground thru the sprinkler system and garbage
disposal, a 3 wire house built in 1979...I was at home at the time and
vividly recall hearing a hell of a loud bang and the smell of ozone...
The second time was Tulsa where the previous owner had a small TV antenna,
that I never used but one day I noticed that the twinlead had been fried,
but no electrical appliance was damaged, a 2 wire house built in 1949.. I
never saw any ground wire and perhaps the reason is that it got vaporized..
I've also had a large 50 year Pecan tree damaged, it's still alive but
missing about half its bark..
My advice is if your in an area with lightning then you better install a
substantial ground, as heavy wire as you can find, as short as possible but
allowing for gentle curves, no sharp bends. Don't depend on your house
ground because I've seen those where the connection was corroded and
lightning found another path. Wash a 10 foot ground rod in and leave enough
exposed for a good connection and inspection point. I doesn't hurt to use
some salt of copper sulfate in the ground rod hole to help the
conductivity..
Put a good lightning arrestor on the center conductor to your ground and
ground the braid as soon as practical...
And as super insurance get a GR quick disconnect and always disconnect your
eqpt, theonly really sure insurance. My Kenwood 850 got fried from a hit
to a ground mounted 18AVT that is surrounded by trees 3 times as high and
fed to the 850 thru 2 coax disconnects. My station ground must have been
too good.
good luck
hank wd5jfr
"'Doc" <w5lz@cwis.net> wrote in message news:3DDED7C7.DD6E1E2@cwis.net...
> 'H.J.',
> Unless either antenna requires an 'RF' ground (very
> unlikely), the only reason for a ground at all is for
> safety (lightning protection). Provide an adequate safety
> ground, then forget it.
> 'Doc

3051. Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 02:30:15 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <5cpttuchbm2gfvqdublbb78b5ju9ud0oou@4ax.com>
Source record: 130783

On Fri, 22 Nov 2002 12:19:06 -0800, Mike <scifiguy at starband dot
net> wrote:

|I recently started playing with EZNEC, and ran into a problem that
|should be easily solved, but I can't figure it out.
|
|When I take a 1/4 wave vertical over "real ground", with the lower end
|of the wire at the origin (in "ground", according to the wires list).,
|and raise it just a tiny fraction of a meter, it goes from nearly zero
|reactance to several thousand ohms. I assume that by raising the wire
|the source looses its grounding, so I tried creating a second (very
|small) wire with one end at the origin (in ground), and a transmission
|line between the top of that wire and the radiator. This gave the
|same high reactance.

If you take a quarter wavelength monopole operated against (perfect)
ground) you would expect (near) zero reactance and a real part around
30-35 ohm (assuming your source is placed on a segment very near the
ground end).

If you disconnect this from ground, then you have an end-fed quarter
wave radiator, which *will* exhibit very high reactance.

You must very carefully read about transmission line models. You
don't connect a TL *between* two wires, as you might envision
connecting a TL to the two halves of a dipole. You connect the TL to
a wire segment at each end of the TL.
|

3052. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 02:44:37 UTC
From: Krell <krell1215@yahoo.com>
Message-ID: <armpr40so9@enews2.newsguy.com>
Source record: 130786
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Brenda Ann" <brendad@shinbiro.com> wrote in message
news:armlia$l68$1@news1.kornet.net...
> I'm far from a computer guru, but aren't all high level computer languages
> written in assembly/machine code? Aren't they all just basically
interfaces
> between the processor (machine language) and the operator??

Yes, this is pretty much how computer languages evolved. Assembly language is still used today mostly in the development of high level languages (C, VB, Java, etc.) and operating systems, because as each new processor hits the market, they have their own instruction set.

BTW, there is a difference between assembly and machine language. Machine language is that which is understood by the computer - the 1s and 0s. If you had to write and debug a program using only 1s and 0's, you'd soon become frustrated after trying to debug the first couple lines of code. Assembly is the next step up from machine language. It uses alphanumeric representations of the 1s and 0s that the computer uses, and a compilier converts them to the machine language that the computer understands.

3053. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 02:47:58 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <i8qttu4k6u7cak0kajhc98s4q2d7mmlp8p@4ax.com>
Source record: 130784

On Fri, 22 Nov 2002 19:28:02 -0600, 'Doc <w5lz@cwis.net> wrote:

|
|
|Reg,
| Just so that Cecil will benefit from your largess(?),
|you should be aware that the Texas Penal Institutions
|only allow food parcels to be delivered to inmates that
|contain grits, possum, or some type of 'meat jerky'. All
|food parcels that do not contain at least one of these
|items are sent to the state's 'Meals on Wheels' program.
| 'Doc

Reminds me of a time when I was sent to Huntsville, Alabama to the Redstone Missile (also known as the Von Braun Hilton) complex for about a month. No matter where we went for breakfast, we got grits.

You could order pancakes and bacon and tell the waitress, "Hold the grits" and you still got the goddamn grits. Toast and coffee; you got a plate of grits on the side. So they tried to force you to eat grits but they would not let you buy a bottle of beer.

I think Alabama *was* a penal instution.

3054. Re: Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 03:20:44 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <gdsttu0abpp25r8vaiqk0l4poe2v6riert@4ax.com>
Source record: 130789

I think that is what I did (the latter example). I treated the
transmission line as a non radiating 50 ohm "wire" that attaches to
the end of the radiating wire (the vertical), and the end of a short
wire that is grounded.

On Fri, 22 Nov 2002 19:30:15 -0700, Wes Stewart <n7ws@nowhere.com>
wrote:
...
>You must very carefully read about transmission line models. You
>don't connect a TL *between* two wires, as you might envision
>connecting a TL to the two halves of a dipole. You connect the TL to
>*a* wire segment at each end of the TL.
>|

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3055. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 03:27:55 UTC
From: richardharrison@webtv.net
Message-ID: <19717-3DDEF5BB-456@storefull-2311.public.lawson.webtv.net>
Source record: 130790

Art, KB9MZ wrote:
"Seems like you said the same thing."

I`m elated to have understood. Thank you for the confirmation.

What is the main advantage of your antenna and what results do you have which confirm that advantage?

Best regards, Richard Harrison, KB5WZI

3056. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 04:04:20 UTC
From: "Dee D. Flint" <dee.hays@sbcglobal.net>
Message-ID: <87DD9.2539$4j5.1394781@newssvr28.news.prodigy.com>
Source record: 130787

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:3275-3DDE3ABF-352@storefull-2315.public.lawson.webtv.net...
> Dee, N8UZE wrote:
> "Didn`t read up on the World Trade Center disaster support did you."
>
> I appreciate whatever ham radio did to alleviate 9-11-1.
>
> I expect most ham messages were of the "Aunt Tessie says she`s OK"
> variety. The authorities likely wouldn`t allow hams entry to the scene.
>

Read the article before you pretend to know what the authorities would or would not allow and what support the hams provided or what kind of messages they handled. DON'T SPECULATE! The info is out there.

Dee Flint, N8UZE

3057. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 04:10:15 UTC
From: "Dee D. Flint" <dee.hays@sbcglobal.net>
Message-ID: <GcDD9.2541$4j5.1395438@newssvr28.news.prodigy.com>
Source record: 130788
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Tom Welch" <pm4hire@excite.com> wrote in message
news:52a66032.0211221228.16b8acf3@posting.google.com...
> In this day and age, requiring folks to do code is
> pure bullshit. Do we ask computer science majors to
> write code in assembly language or know DOS?

Some one had better know how to write in assembly language. You do need to
develop ever advancing compilers etc and that may take some assembly
language programming even today.

3058. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 04:12:09 UTC
From: richardharrison@webtv.net
Message-ID: <8727-3DDF0019-370@storefull-2313.public.lawson.webtv.net>
Source record: 130794

Dee, N8UZE wrote:
"DON`T SPECULATE!"

What`s done is done. Next time history likely won`t repeat. My speculation is based on experience and information. I`ve advised a city on all its communications after studying its personnel, facilities and experience. Regardless of what happened in New York, the likely response would be as I speculated.

Best regards, Richard Harrison, KB5WZI

3059. Re: EZNEC 3.0 Above Ground Vertical Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 04:15:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utu07h8pprobfe@corp.supernews.com>
Source record: 130791

A non-radiating transmission line can carry no common mode current. Therefore there won't be any current flowing to the ground due to connecting one terminal of one end of the transmission line to it. (Imagine if you will a coax tranmission line with a great bunch of ferrite beads along its outside.) If you connect only one terminal of a model transmission line end (that is, only one end of a short wire to which the transmission line end is connected), it doesn't make any difference what you connect it to or if you connect it to anything or not. (Same as a coax with a bunch of ferrite beads along the outside.) What you have is an open-ended stub connected to your antenna, but one that can't radiate. As far as the model is concerned, it's exactly the same as a lumped impdance (or "load") inserted in the antenna at that point. The impedance of the "load" is the impedance seen looking into an open circuited transmission line of the specified length and impedance. If you'd like, you can calculate the impedance you'd see looking into the line replace it with a load of that impedance -- you'll see no change in the results. You will, of course, see a difference between the stub and load if you change the frequency, since their impedances change differently from each other with frequency.

Roy Lewallen, W7EL

Mike wrote:
> I think that is what I did (the latter example). I treated the
> transmission line as a non radiating 50 ohm "wire" that attaches to
> the end of the radiating wire (the vertical), and the end of a short
> wire that is grounded.
>
> On Fri, 22 Nov 2002 19:30:15 -0700, Wes Stewart <n7ws@nowhere.com>
> wrote:
> ...
>
>>You must very carefully read about transmission line models. You
>>don't connect a TL *between* two wires, as you might envision
>>connecting a TL to the two halves of a dipole. You connect the TL to
>>*a* wire segment at each end of the TL.
>>|
>
>
>
>
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3060. gain without pain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 04:18:40 UTC
From: ka8uze <ka8uze@prodiy.net>
Message-ID: <AkDD9.5210$t%3.4702@newssvr16.news.prodigy.com>
Source record: 130804

cannot figure phase lengths for 10meter (phone)L1 and L2 4.95 ft element spacing

many thanks paul werhane ka8uze

3061. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 04:38:41 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDF0651.6CF7B3B8@ieee.org>
Source record: 130792

Reg Edwards wrote:
> By the way, what was your crime?

Sorry to say, certain sex acts with my wife are still
against the law in Louisiana.
--
cheers, CAM http://www.qsl.net/w5dxp

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3062. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 04:45:03 UTC
From: Holier-Than-Thou <Critical@Anon.com>
Message-ID: <arn11n$l1j$0@pita.alt.net>
Source record: 130793
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

<Moparholic@hotmailnospam.com> wrote in message
news:20021122232248.625$Qw@newsreader.com...
> "John S. Dyson" <dyson@iquest.net> wrote:
> (snip)
> >> It was good to hear that ham radio is starting to realize that they
need
> > to look towards the future, rather than try to create a false elitism
> > based upon an anachronistic skill. If the elitism is based upon a
> > currently (or future) strongly useful expertise, then there is some
> > value. Ham radio does need to continue to self-police, but also appear
> > to be friendly.
> >
> > John
> >
> Best response I've seen on this cross posted fubar'd thread.

Ah, yes. But those of you who advocate "self-policing" are the very ones who
take it upon yourselves to sometimes play "net cop" while you titter and
tatter about the poor operating procedures of others. This is, in itself, a
form of elitism in that a minority of ops willingly choose to castigate
others for operating procedures with which they do not agree. Beware of
"self-policing" and the resultant criticism of other ops...this, in the eyes
of many, has not the appearance of being friendly.
So far it would appear that "self-policing" is but a nice feel-good idea
with little merit and zero results.

3063. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 04:46:25 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <uDDD9.720$pc.145285@news.iquest.net>
Source record: 130795
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Brenda Ann" <brendad@shinbiro.com> wrote in message news:armlia$l68$1@news1.kornet.net...
> I'm far from a computer guru, but aren't all high level computer languages
> written in assembly/machine code? Aren't they all just basically interfaces
> between the processor (machine language) and the operator??
>
Machine code, and the textual representation of machine code: assembly language
are the lowest normal level of programming (ignore microcode, etc.) The
ultimate output of compilers and assemblers is the machine code. There are other
ways of making computers do what you want also, including 'interpreters' and/or
'emulators'.

One first creates a bunch of 'source files' that contain the program instructions
(in high level language or in assembly code), and then apply the source files to
a compile/linkage process, or directly execute the program using an 'interpreter'.
Interpreter programs can either 'execute' the code directly upon parsing (reading)
the program statements, or can create an internal version (or somewhere in
between.) In the case of compile/link-type systems, they produce a program that
can be run directly on the computer under specific operating systems that support
I/O and other functions. The simplest forms of Java are a hybrid, where you
compile the source files, but you run a program that interprets the psuedo-machine
code as if it is a real processor (well, sort of...)

There are more than I list, but off the top, I can think of at least these four methods
of 'making computers do what you want':

1) Compiler/Assembler/Linker:
These take a higher level language (assembler is slightly higher level than
machine code from a representational standpoint) than machine code, and
produce runnable machine code. This is like using Microsoft-C or MASM,
linking the output with libraries, and produce an EXE file for NT/2000. A
similar thing is normally done on Unix.

2) Traditional interpreter:
The MS Basic interpreter that Billy and friend wrote would directly execute
the text of a program, but reparsing and executing the code statement by statement.

3) Less traditional interpreter:
AFAIR, Perl creates a compiled copy of at least a part of the program, but the
'compiled' output is an internal representation that is used as a set of instructions
for software.

4) P-Code compiler/interpreter
Java and the old UCSD P-System on a PDP11 uses an explicit compiler to
produce a file that is similar to machine instructions. The difference is that the
'machine instructions' are actually created for a formally defined software

interpreter for those instructions. In some cases, Java performance has been improved so that during the 'interpretation' of those virtual instructions, native (real) machine code is made available for future execution in a given running of a program. Even further, it is possible to 'compile' those Java virtual machine instructions into an EXE-type file that would be normally directly created by a Microsoft-C or Unix-C compiler and linkage process.

So, I hope this helps to clarify, but probably is 'too much' from the standpoint starting from scratch.

John

3064. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 05:10:13 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <OZDD9.723$pc.145779@news.iquest.net>
Source record: 130796
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

"Holier-Than-Thou" <Critical@Anon.com> wrote in message news:arn11n$l1j$0@pita.alt.net...
>
> <Moparholic@hotmailnospam.com> wrote in message
> news:20021122232248.625$Qw@newsreader.com...
> > "John S. Dyson" <dyson@iquest.net> wrote:
> > (snip)
> > >> It was good to hear that ham radio is starting to realize that they
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> > > to look towards the future, rather than try to create a false elitism
> > > based upon an anachronistic skill. If the elitism is based upon a
> > > currently (or future) strongly useful expertise, then there is some
> > > value. Ham radio does need to continue to self-police, but also appear
> > > to be friendly.
> > >
> > > John
> > >
> > Best response I've seen on this cross posted fubar'd thread.
>
> Ah, yes. But those of you who advocate "self-policing" are the very ones who
> take it upon yourselves to sometimes play "net cop" while you titter and
> tatter about the poor operating procedures of others.
>
I agree that there is at least one 'Barney Fife' in every organization. However, it is
better that Ham radio be self-policed than to have the FCC crack down only against
things that they politically don't like. If ham radio is allowed to be a cesspool of
people who violate conventions, but technically obey the law enough to stay under
the FCCs radar, then that would diminish the hobby. I am not familiar anymore with
the ARRL guidelines, but there should certainly be some guidelines so that the 'net-police'
or the
'ham-police' people who have a little too much zeal can be helped back to
more reasonable attitudes. The various conventions and rules of etiquette need to
be taken seriously, and I seem to remember that even when I got my license a long
time ago that there were such 'conventions.'

It is much better that reasonable guidelines be instituted, and strong suggestions
be made in the guidelines that the spectrum is to be shared amongst HROs
according to the law and conventions. If there aren't reasonable guidelines, and/or
intolerant people who seem to emotionally need to be snobs, then the self
policing will sometimes fail. Frankly, from what I have heard, the current scheme
seems to work okay, but there'll always be those people with too much zeal!!! :-(.

People do tend to be cliquish, and I have made various such mistakes in
previous situations. It is important that the 'elders' avoid become
condescending or turn into control freaks.

I don't mean to compare hams with other community radio service participants, but I remember my Dad talking about various groups believing that they 'own' certain CB channels (this was back in the 'Convoy' days). It is sadly odd, if not almost funny to think that someone is so diluded into thinking that they can have dominion over a resource like that. Again, times have probably changed a little on CB, and I am not making that complaint about amateur radio (I am just seriously thinking about ham again), but even good people can become petit and cliquish in situations that lend themselves to that kind of behavior.

I really believe in ham radio as a great hobby for kids of all ages (including those who are retired :-)). Computers are great (and I am a very serious computer person), but I'd like to see ham radio compete for alot of the mindshare directed towards the CREATIVE parts of the computer hobby... (I am NOT confusing the computer WWW addict with the real computer hobby of developing tools and applications that do interesting things.)

Hopefully, I'll have collected enough info in the next week or so to be able to embark on a new hobby...

John

3065. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 05:43:54 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <utu5d1lc9652eb@corp.supernews.com>
Source record: 130797
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

John S. Dyson wrote:
>
> I really believe in ham radio as a great hobby for kids of all ages (including those
> who are retired :-)). Computers are great (and I am a very serious computer
> person), but I'd like to see ham radio compete for alot of the mindshare directed
> towards the CREATIVE parts of the computer hobby... (I am NOT confusing the
> computer WWW addict with the real computer hobby of developing tools and
> applications that do interesting things.)
>
> Hopefully, I'll have collected enough info in the next week or so to be able to
> embark on a new hobby...
>
> John

You've found the key word...HOBBY. Its not a job or political position
and and if its a PITA you can (and should) just walk away and do
something else. No need to hang out on a repeater/club/band/newsgroup
if the general attitude there is such that aggravates you and takes away
from the enjoyment. No rocket science and no Morse code unless you want
it that way.
Good luck,
Bill WX4A

3066. Re: Info on RX noise bridge from Ham Radio Magazine

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 05:56:57 UTC
From: Kent Haase <ijeh99@mb.sympatico.ca>
Message-ID: <QWED9.16197$b5.81689@news1.mts.net>
Source record: 130799

There was an article in the March '83 Issue of Ham Radio Magazine by K2ST
for a Precision Noise Bridge. If anyone can make a copy, I'd like one, too.

Kent VE4KEH

"Kristinn Andersen" <kiddi@marel.is> wrote in message
news:b7cca008.0211211744.3c1ea1c3@posting.google.com...
> Some years back I constructed an RX noise bridge from an article in
> Ham Radio Magazine. The article appeared probably sometime in the
> 1980's, but possibly even back in the late 70's.
<snip>
> It looks like I have lost this article, so any info would be
> appreciated.
>
> 73 de TF3KX, Kristinn

3067. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 05:58:28 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <0HED9.725$pc.146163@news.iquest.net>
Source record: 130798
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

"Bill M" <""exray\"@n-o- .caribe.net> wrote in message
news:utu5d1lc9652eb@corp.supernews.com...
> John S. Dyson wrote:
> >
> > I really believe in ham radio as a great hobby for kids of all ages (including those
> > who are retired :-)). Computers are great (and I am a very serious computer
> > person), but I'd like to see ham radio compete for alot of the mindshare directed
> > towards the CREATIVE parts of the computer hobby... (I am NOT confusing the
> > computer WWW addict with the real computer hobby of developing tools and
> > applications that do interesting things.)
> >
> > Hopefully, I'll have collected enough info in the next week or so to be able to
> > embark on a new hobby...
> >
> > John
>
> You've found the key word...HOBBY. Its not a job or political position
> and and if its a PITA you can (and should) just walk away and do
> something else. No need to hang out on a repeater/club/band/newsgroup
> if the general attitude there is such that aggravates you and takes away
> from the enjoyment. No rocket science and no Morse code unless you want
> it that way.
>
I do agree with that. It would be good if the unecessary cost of entry to HF
'Morse code' could be removed (limited by treaty) however.

My interest in technical competence for HROs is based upon being able to
responsibly deal with and understand problems dealing with more than low
power transmitters. With high power comes more responsibility for local
interference and occupation of spectrum space.

I don't see a problem with Ham radio having a pure communicator class
license, where there is little or no technical or code qualification. However,
that class of operators should be limited to purchased gear at low power on
VHF/UHF.

John

John

3068. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 06:11:36 UTC
From: Holier-Than-Thou <Critical@Anon.com>
Message-ID: <arn63t$2fa$0@pita.alt.net>
Source record: 130800
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

```
"John S. Dyson" <dyson@iquest.net> wrote in message
news:OZDD9.723$pc.145779@news.iquest.net...
>
> "Holier-Than-Thou" <Critical@Anon.com> wrote in message
news:arn11n$l1j$0@pita.alt.net...
> >
> > <Moparholic@hotmailnospam.com> wrote in message
> > news:20021122232248.625$Qw@newsreader.com...
> > > "John S. Dyson" <dyson@iquest.net> wrote:
> > > (snip)
> > > >> It was good to hear that ham radio is starting to realize that they
> > need
> > > > to look towards the future, rather than try to create a false
elitism
> > > > based upon an anachronistic skill. If the elitism is based upon a
> > > > currently (or future) strongly useful expertise, then there is some
> > > > value. Ham radio does need to continue to self-police, but also
appear
> > > > to be friendly.
> > > >
> > > > John
> > > >
> > > Best response I've seen on this cross posted fubar'd thread.
> > >
> > Ah, yes. But those of you who advocate "self-policing" are the very ones
who
> > take it upon yourselves to sometimes play "net cop" while you titter and
> > tatter about the poor operating procedures of others.
> >
> I agree that there is at least one 'Barney Fife' in every organization.
However, it is
> better that Ham radio be self-policed than to have the FCC crack down only
against
> things that they politically don't like. If ham radio is allowed to be a
cesspool of
> people who violate conventions, but technically obey the law enough to
stay under
> the FCCs radar, then that would diminish the hobby. I am not familiar
anymore with
> the ARRL guidelines, but there should certainly be some guidelines so that
the 'net-police' or the
> 'ham-police' people who have a little too much zeal can be helped back to
> more reasonable attitudes. The various conventions and rules of
```

etiquette need to
> be taken seriously, and I seem to remember that even when I got my license
a long
> time ago that there were such 'conventions.'
>
> It is much better that reasonable guidelines be instituted, and strong
suggestions
> be made in the guidelines that the spectrum is to be shared amongst HROs
> according to the law and conventions. If there aren't reasonable
guidelines, and/or
> intolerant people who seem to emotionally need to be snobs, then the self
> policing will sometimes fail. Frankly, from what I have heard, the
current scheme
> seems to work okay, but there'll always be those people with too much
zeal!!! :-(.
>
> People do tend to be cliquish, and I have made various such mistakes in
> previous situations. It is important that the 'elders' avoid become
> condescending or turn into control freaks.
>
> I don't mean to compare hams with other community radio service
participants,
> but I remember my Dad talking about various groups believing that they
'own'
> certain CB channels (this was back in the 'Convoy' days). It is sadly
odd, if
> not almost funny to think that someone is so diluded into thinking that
they can
> have dominion over a resource like that. Again, times have probably
changed
> a little on CB, and I am not making that complaint about amateur radio (I
am
> just seriously thinking about ham again), but even good people can become
> petit and cliquish in situations that lend themselves to that kind of
behavior.
>
> I really believe in ham radio as a great hobby for kids of all ages
(including those
> who are retired :-)). Computers are great (and I am a very serious
computer
> person), but I'd like to see ham radio compete for alot of the mindshare
directed
> towards the CREATIVE parts of the computer hobby... (I am NOT confusing
the
> computer WWW addict with the real computer hobby of developing tools and
> applications that do interesting things.)
>
> Hopefully, I'll have collected enough info in the next week or so to be
able to
> embark on a new hobby...

>
> John

Well, as Roy Rogers would say...Happy Trails To You....

3069. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 06:46:33 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <utu92ifvm5jmd4@corp.supernews.com>
Source record: 130801
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

John S. Dyson wrote:

>
> I do agree with that. It would be good if the unecessary cost of entry to HF
> 'Morse code' could be removed (limited by treaty) however.

VHF/UHF seems to be the experimenter's playground these days and the intl treaty doesn't prevent >30MHz licensing without code. HF will be sticky forever. You can work around the world with a watt on HF, and so can the garbage spouting out of an improperly operated rig, so the potential remains for interference to commercial services and thats why the Treaty is such as it is. Its not an argument that I'm going to try to hold my own on, however. I recall that Japan went to a 'communicator' license scheme back in the 70s-80s and no-coders were given privileges up to 20 watts on HF or something like that. The bands didn't turn into a zoo-like cacophony of echoes and roger-beeps. Maybe in Japan it did...I wouldn't know.

>
> I don't see a problem with Ham radio having a pure communicator class
> license, where there is little or no technical or code qualification. However,
> that class of operators should be limited to purchased gear at low power on
> VHF/UHF.

Well, with any drastic change like doing this on HF, there has to be some enforcement mechanism or else the existing rowdy ranks from 26-28 MHz have a real potential to screw things up for everybody on all bands. The FCC got out of the ham bizness many years ago when they turned over 'licensing' to the ARRL. The only time they even bother with enforcement of the Amateur Radio Service is when some nut goes berserk on 75 meters or a repeater and generates a ton of specific complaints. I don't think they want to go back to the patrolling mode like in the old days where if you said s**t on the air you'd automatically get an FCC notice (and a dozen ARRL OO notices)...and I don't think anybody wants to see that. But opening up HF would require such vigilence and we would all pay the price.

Bottom line is that- 1) 5 wpm ain't all that tough and 2) outsiders looking in to the amateur radio service don't necessarily have the same perspective of those already inside. Pity that it translates into a we vs. them scenario but thats human nature.

I've taught code classes with a hometown club and its very clear that some people simply can't master it but would be 'good' hams nonetheless. I'm not going to speculate about mental blocks and all that but I can

vouch for the ones that would jump up in the middle of a code-practice session and yell out "I ain't puttin' up with this s**t" and storm out of the room, yet 9-year-old kids were able to pass muster. I don't think they'd behave that way at the Driver's License office, so yeah, there's some level of committment that makes getting into the hobby something to work at, even if it may seem archaic. These same 'examples' are the same ones that will also piss and moan about putting their real name and address on a FCC License Application form.

There's a framework in place that allows most anybody whose knuckles don't drag the ground to get a ham radio license. The people who can't accomplish this...well, go figure.
/end rant

-Bill WX4A

3070. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 07:49:51 UTC
From: plampione@yahoo.com
Message-ID: <b30faff8.0211222349.40c283ed@posting.google.com>
Source record: 130802
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

"Dee D. Flint" <dee.hays@sbcglobal.net> wrote in message
news:<8YeD9.2356$4j5.1260780@newssvr28.news.prodigy.com>...
> "Peter Lampione" <plampione@yahoo.com> wrote in message
> news:b30faff8.0211211159.57a762c3@posting.google.com...
> > Oh I am quite willing to learn things in general!
> > But the point is, there are so many things to learn,
> > and I prefer to learn useful things to useless ones.
> > I'd rather spend time learning more about DSP, that can
> > be useful to me to post-process radio signals, than code,
> > that I am likely to never use.
>
> Actually learning all about DSP is useless as it's built into the radio and
> I don't have to do anything.

Wrong.
If you knew about DSP, you could easily hook up the radio to your laptop
and program, for instance, a scan mode that stops only on the "voice"
channels, and not simply where the signal is strong.
You could build your own noise-reducing filters.
You could get a programmable radio (Ten Tec?), and modify the firmware.

What you are saying is a bit like saying: Hey, I don't need to
know how to solder, my radio comes already soldered.

The fact is that more and more of the radio receiver functions in the
future will be done digitally. There are two main reasons:
it's more flexible, and it is easier and more repeatable
to manufacture digital ICs than analog ones.
In cell phones, in cordless phones, everywhere that radio
technology matters, digital is more and more used.
If you refuse to learn digital signal processing, pretty soon you will
understand about 5% of how a receiver works; the rest will be digital.
Of course, you will still be able to use code on archaic equipment,
but amateur radio should look forward, not backward.

Peter

Peter

3071. Re: EZNEC 3.0 Above Ground Vertical Question - Vert1 Above Ground.ez (0/1)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 08:41:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utufp8lapamsb4@corp.supernews.com>
Source record: 130803

Imagine that you have a 10.3 meter vertical wire with the bottom 0.5 meter above a copper-sheet ground. Then imagine that you have a very small, self contained and battery operated 40 meter transmitter. That's what the source represents. 0.515 meters above the bottom of the wire, you cut the wire and insert the tiny transmitter. Notice that the tranmitter has two terminals for the antenna -- one is connected to the 9.785 meters of wire above it, and the other is connected to the 0.515 meters of wire below it. Finally, imagine that you've got a 0.94 meter long piece of 50 ohm air dielectric coax loaded with ferrite beads along the outside of its whole length to prevent common mode current flow. You connect one end of this transmission line across your transmitter terminals, and let the other end hang, or connect one but only one of the conductors of the far end to ground. What impedance do you suppose the transmitter will see? Let's disconnect the transmission line for a moment so we can look at one thing at a time. Since one terminal of the transmitter is essentially open circuited (connected to a relatively short, 0.515 meter wire), you'd expect the transmitter to see quite a high impedance if the transmission line wasn't there. And, whaddaya know, EZNEC says the impedance would be around 3k ohms, capacitive (45.3 - j3293). Just what you should see. Well, what's the impedance of an open circuited, 0.94 meter long 50 ohm line at 7 MHz? about 0 - j360 ohms. That is, it looks like a capacitor. You put the -j360 ohms in parallel with the 45.3 - j3293 by reconnecting the transmission line to the transmitter, and what should you get? Pretty darn close to 0.42 - j314, which is what EZNEC reports. You can connect one conductor of the other end of the transmission line (in the model, one end of the short wire the end is connected to) to anything you'd like. As long as you leave the other conductor (or other end of the short wire in the model) open, it'll have no effect. In the real-life equivalent, the ferrite beads will prevent common mode current flow; in the model transmission line it's prevented by the way the line is mathematically implemented.

So you see, EZNEC has told you just what you asked it. You described an antenna to EZNEC and it told you how the antenna would behave. While it would be possible to create a modeling program that would try to guess what you want to do, and do that instead of what you tell it to do, it would certainly be unacceptable to anyone expecting it to do what it's told. I know that a program that would do that would end up in the trash here in a matter of milliseconds. And it would take that long only because of my declining reaction time.

I have no idea what you were trying to model, and neither does EZNEC. But we both can see what it is that you told EZNEC to model. And it did

tell you how the antenna you described to it would behave. To
successfully use any modeling program, you have to learn how to describe
to it the antenna you want to analyze. It can't -- and won't -- guess.

Roy Lewallen, W7EL

Mike wrote:
> Hi Roy,
>
> I appreciate you taking the time to respond to my post. I figured
> someone else might have run across a similar problem, so I should ask
> here, rather than send you an email.
>
> I looked at the help where you indicated, but it just says to use
> MININEC ground, which I'm already doing. Unless I am misunderstanding
> the help file, ground is as it should be.
>
> I attached the .ez file, in case you'd be willing to look at it. I
> understand you don't have time to check everyone's problems, but I'd
> really appreciate you taking a look.
>
> Thanks.
>
> --Mike
>
> On Fri, 22 Nov 2002 14:13:42 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>In the EZNEC manual (click "Help", then "Contents"), Look in index under
>>"Ground, Connecting Wires". You'll see several choices when you click
>>it. Choose "Connecting Wires to Ground".
>>
>>Roy Lewallen, W7EL
>>
>
>
>
>
> ------------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
> http://www.newsfeed.com The #1 Newsgroup Service in the World!
> -----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

3072. Re: 4NEC2 ver 5.0 Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 13:40:15 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0211230540.72b163be@posting.google.com>
Source record: 130810

> Under "Settings", "General Setting" make sure that the Nec2DXS engine
> is selected. In my case, with Nec2d selected it doesn't compute
> either.

Thanks, Wes. That was it.

It seems to work OK now, except when I do the '3D' option I get an error about not finding the 'gnd.bmp' file, then it goes ahead and works anyway. I had moved the 4nec2 directory to the c:\ root. Now that I got it to work I will try moving it back to where I want it. I like to be able to organize my programs a bit, according to category.

There's a couple of other minor errors that come up, too, but I think they have something to do with not having some directory set up.

...and I am even mor impressed by the 3D pattern display, with color option. A bit more 'spit and polish' and 4NEC2X will be a real winner!

Jim
N8EE

3073. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 14:24:25 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211230624.1ce8c1cc@posting.google.com>
Source record: 130811

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<19717-3DDEF5BB-456@storefull-2311.public.lawson.webtv.net>...
> Art, KB9MZ wrote:
> "Seems like you said the same thing."
>
> I`m elated to have understood. Thank you for the confirmation.
>
> What is the main advantage of your antenna and what results do you have
> which confirm that advantage?
>
> Best regards, Richard Harrison, KB5WZI

Richard the antenna has been one mishap after another.
My capacitor broke during assembly and I had to remake it.
On assembly of the center portion of the element the
capacitor drive belt keeps breaking because something
is sticking inside the element and it takes quite a while
to disassemble to try and resolve what happened. I will finish it
but I am beginning to question the need to do it, Hi.
Even thought of making the element a larger diameter than 1 1/2
but then that would be admitting defeat. Wife is getting
impatient tho regarding the neglect of her honey doo,s
and the chill of the comming winter has set in so I have
a real problem on my hands.When it is finally done I
will send you a photo
Regards
Art

3074. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 14:44:19 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211230644.18bbdc4f@posting.google.com>
Source record: 130812

Roy Lewallen <w7el@eznec.com> wrote in message news:<uttao07nq8ugf6@corp.supernews.com>...
> Art Unwin KB9MZ wrote:
> >
> > Richard I believe the term 'skin effect' is being somewhat misused
> > and it could be by me ! Radiation will not occur because of the flow
> > of
> > current alone even tho the electrons do accelerate and deccellerate.
> > . . .
>
> A DC current produces no radiation for the reason you cite. However,
> when the current is alternating, the electrons are sho' 'nuff
> accellerating, and do produce a field. (Current is simply the rate of
> change of charge, so the rate of change of the current is the charge
> accelleration.) The field can be confined, as inside a coaxial
> transmission line or metal box, in which case radiation doesn't make it
> outside the line or box. But the presence of alternating current on a
> conductor does guarantee radiation.
>
> Roy Lewallen, W7EL

I hear you Roy and everything points exactly as you say
so it cannot be refuted.For myself I have difficulty in
comprehending what the 'radiation' losses are in actual numbers
i.e. the same or not the same to that when radiation is
not encumbered, but I shouldn't have deviated from what
is presently understood in the earlier post.
Regards
Art

3075. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 15:22:42 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aro6g1aho1@venus.btinternet.com>
Source record: 130817

> Sorry to say, certain sex acts with my wife are still
> against the law in Louisiana.
==========

But not with private secretaries in Washington DC during working hours it seems.

PS: Don't you find it somewhat inconvenient being shackled to the rest of the gang ?

Reg

3076. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 15:35:01 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <y7ND9.735$pc.148185@news.iquest.net>
Source record: 130818
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

"Bill M" <""exray\"@n-o- .caribe.net> wrote in message
news:utu92ifvm5jmd4@corp.supernews.com...
>
> Bottom line is that- 1) 5 wpm ain't all that tough and 2) outsiders
> looking in to the amateur radio service don't necessarily have the same
> perspective of those already inside. Pity that it translates into a we
> vs. them scenario but thats human nature.
>
I agree that 5wpm isn't all that tough for many people, but learning technical
competency with a REAL technical exam would be a better allocation of time
for newbies. Exclusive clubs based upon anachronisms isn't helpful. Exclusive
clubs based upon competency, public service and even creating a larger
'technical' gene pool isn't a perfect thing, but much more socially justifiable than
'secret handshakes' like Morse code.

John

3077. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 15:44:16 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <aro7og$on4$0@208.206.142.110>
Source record: 130720
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

Peter Lampione wrote:
>
> What you are saying is a bit like saying: Hey, I don't need to
> know how to solder, my radio comes already soldered.
>

And that's like saying "I only want to learn what I want to learn for my license test, and that doesn't include Morse code, even though it is a requirement".

> The fact is that more and more of the radio receiver functions in the
> future will be done digitally.

Only *some* receivers. Generally built in factories by electronic professionals, not your average homebrewing ham. Yes, those receivers are marvelous. And demanding of advanced technical skills not found in the general amateur radio population, nor likely to be found there in the future where testing requirements don't demand such skill and knowledge. That's to be expected since only a small portion of hams are professionals who have that advanced training and skill. Far more are skilled at such "archaic" but very effective communications modes as radiotelegraphy. Many of those hams also are users of advanced digital modes, but few are trained in the development of those modes. Most are just happy to be users of them. That doesn't mean there are no technical skills among the general ham population. It DOES mean that technical skills among hams are far more likely to lie in other than the latest djgjtal technology. I don't see that changing as long as simple tests are all that are required for entry into ham radio.
While new hams who are serious about learning to engage in their newfound pursuits, few have the background to leap onto the digital design bandwagon. I believe fact that will forestall any great amount of digital design work by hams other than the smaller portion of the hobby who are already so engaged.

There are two main reasons:
> it's more flexible, and it is easier and more repeatable
> to manufacture digital ICs than analog ones.
> In cell phones, in cordless phones, everywhere that radio
> technology matters, digital is more and more used.

The operative term here is "used". Hams are more and more users of advanced technology and less and less designers. Most design by ordinary hams is at a level of technology below digital design using advanced ICs. I can't imagine why this should be surprising to anyone. Bu it always seems to bring forth dire predictions for the demise of the ARS

because of it. Won't happen. Our future is far more dependent on our emergency communications capabilities, and that demands little or no digital design skill.

> If you refuse to learn digital signal processing, pretty soon you will
> understand about 5% of how a receiver works; the rest will be digital.

Only the design of the newest receivers. Pure digital radio is still far in the future, save a niche element which is normal for advancement in the field. Analog radio is far from being ill, and very far from dying.

> Of course, you will still be able to use code on archaic equipment,
> but amateur radio should look forward, not backward.

That's your opinion, shared only by other similarly situated technical types. Most of us hams believe we should look both forward *and" backward. We have a great heritage and most of us won't forget where we came from and how we got here as we move into the future.

Dick

>
> Peter
>
> Peter

3078. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 15:45:28 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDFA298.83D369C2@ieee.org>
Source record: 130721

Reg Edwards wrote:
>
> > Sorry to say, certain sex acts with my wife are still
> > against the law in Louisiana.
>
> But not with private secretaries in Washington DC during working hours it
> seems.

Too bad Clinton didn't do his Monica thing in New Orleans
where it is a felony.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3079. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 15:49:47 UTC
From: "Dee D. Flint" <dee.hays@sbcglobal.net>
Message-ID: <vsND9.2587$4j5.1449432@newssvr28.news.prodigy.com>
Source record: 130813
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"KC8PMX" <kc8pmx@NOSPAMdiamondcs.net> wrote in message
news:arnpdd72nl0@enews2.newsguy.com...
>
> Step 6: Complain to the ARRL when-ever you hear an idiot on the air.
>
> They are not our governing body, nor will I ever accept them as our
> "governing body." It is bad enough that they have taken over the testing
> duties.
>

They are not and never have been our governing body. They are merely the
largest ORGNIZED group of amateurs. Thus we can have some clout in the
political arena and get heard by government policy makers.

Note that ARRL did not "take over" testing duties. There are many VECs
accepted by the FCC. All the VEC organizations have to meet with each other
on a regular basis and agree to each question pool, how often that pool is
changed, whether it is multiple choice, etc. If ARRL had "taken over,"
they would be in sole control of the testing. They are not. There is W%YI,
SANDARC, and a half a dozen or more other organizations.

Dee Flint, N8UZE

3080. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 15:51:04 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDFA3E8.892A45FE@ieee.org>
Source record: 130722
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

"Dee D. Flint" wrote:
> I think every ham should have to demonstrate that they can solder a
> connector to a coax successfully.

I've been a ham for 50 years and an engineer for 43 years and
I still can't solder a PL-259 to RG-213.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3081. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 15:54:15 UTC
From: "Dee D. Flint" <dee.hays@sbcglobal.net>
Message-ID: <HwND9.2588$4j5.1449870@newssvr28.news.prodigy.com>
Source record: 130814

But you speculated on what you should have researched for the incident actually under discussion. And it is improper to apply the happenings in the one city that you worked with to all cities. There are articles published by the ham magazines documenting the regular involvement with authorities during disasters of all types. Yes there are problem cities but there are others that welcome hams with open arms.

Dee Flint, N8UZE

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:8727-3DDF0019-370@storefull-2313.public.lawson.webtv.net...
> Dee, N8UZE wrote:
> "DON`T SPECULATE!"
>
> What`s done is done. Next time history likely won`t repeat. My
> speculation is based on experience and information. I`ve advised a city
> on all its communications after studying its personnel, facilities and
> experience. Regardless of what happened in New York, the likely response
> would be as I speculated.
>
> Best regards, Richard Harrison, KB5WZI
>

3082. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 15:59:09 UTC
From: "Dee D. Flint" <dee.hays@sbcglobal.net>
Message-ID: <hBND9.2589$4j5.1450313@newssvr28.news.prodigy.com>
Source record: 130815
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

"John S. Dyson" <dyson@iquest.net> wrote in message
news:0HED9.725$pc.146163@news.iquest.net...
>
>
> I don't see a problem with Ham radio having a pure communicator class
> license, where there is little or no technical or code qualification.
However,
> that class of operators should be limited to purchased gear at low power
on
> VHF/UHF.
>

That's basically the definition of GMRS and FMRS.

3083. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 16:02:44 UTC
From: "Dee D. Flint" <dee.hays@sbcglobal.net>
Message-ID: <EEND9.2591$4j5.1450917@newssvr28.news.prodigy.com>
Source record: 130816
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

I was being sarcastic and trying to point out that the same argument can be used for anything that a person doesn't want to learn. Personally I happen to think that there should be more basics included in testing. For example, I think every ham should have to demonstrate that they can solder a connector to a coax successfully. However they don't have become soldering experts.

Dee Flint, N8UZE

"Peter Lampione" <plampione@yahoo.com> wrote in message news:b30faff8.0211222349.40c283ed@posting.google.com...
> "Dee D. Flint" <dee.hays@sbcglobal.net> wrote in message news:<8YeD9.2356$4j5.1260780@newssvr28.news.prodigy.com>...
> > "Peter Lampione" <plampione@yahoo.com> wrote in message
> > news:b30faff8.0211211159.57a762c3@posting.google.com...
> > > Oh I am quite willing to learn things in general!
> > > But the point is, there are so many things to learn,
> > > and I prefer to learn useful things to useless ones.
> > > I'd rather spend time learning more about DSP, that can
> > > be useful to me to post-process radio signals, than code,
> > > that I am likely to never use.
> >
> > Actually learning all about DSP is useless as it's built into the radio and
> > I don't have to do anything.
>
> Wrong.
> If you knew about DSP, you could easily hook up the radio to your laptop
> and program, for instance, a scan mode that stops only on the "voice"
> channels, and not simply where the signal is strong.
> You could build your own noise-reducing filters.
> You could get a programmable radio (Ten Tec?), and modify the firmware.
>
> What you are saying is a bit like saying: Hey, I don't need to
> know how to solder, my radio comes already soldered.
>
> The fact is that more and more of the radio receiver functions in the
> future will be done digitally. There are two main reasons:
> it's more flexible, and it is easier and more repeatable
> to manufacture digital ICs than analog ones.
> In cell phones, in cordless phones, everywhere that radio
> technology matters, digital is more and more used.
> If you refuse to learn digital signal processing, pretty soon you will
> understand about 5% of how a receiver works; the rest will be digital.

> Of course, you will still be able to use code on archaic equipment,
> but amateur radio should look forward, not backward.
>
> Peter
>
>
> Peter

3084. Re: Grounding Concern, Comments.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 16:06:23 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <3IND9.148785$E54.521482@news1.east.cox.net>
Source record: 130723

"R. Scott" <washingtonham@yahoo.com> wrote in message >
> I was thinking same Doc, but over the years Ive had both Ground rods and
> heaven forbid no ground rods. But, never had big deal with RF and or
> Computers before hi hi. Been lucky I guess. Ill go ahead and drop a
> couple rods about 4 feet apart, then tie them with 0 or 00 copper wire
> and run one up to a bus bar on desk then tie stuff together. Agree on
> 10 meter thing, Ill see first.
>
> I have a metal case on puter but boy does it leak RF as well as my DSL
> Line. Sheesh, going to wrap the lines in some Torroids and see if it
> cleans em up some.
>
> Scotty N7HJ

Bringing the coax lines into the house, and the trying to achieve
a true "ground" is going about things the wrong way.

The lines should be grounded before they
enter the house! Establish a ground panel at the entrance that is directly
tied to a ground rod at that point. You'll also need to bound the station
ground
rod to your electrical service entrance ground to meet codes.

If you have RF getting back into the shack, it's probably common mode
pickup on the shield which is radiating garbage back to the antenna
system. Try using common mode chokes (ferrite cores) on the coax
and rotor cables near where your ground rod and protection devices
are located.

Pete

3085. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 16:09:50 UTC
From: pm4hire@excite.com
Message-ID: <52a66032.0211230809.30598869@posting.google.com>
Source record: 130724
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Check Your Stats:

On a per capita basis, the ham radio community is shrinking and going nowhere. And on a per capita basis, Japan has twice as many ham radio operators as the United States.

The ham radio community is 50 years behind the times by holding on to this code thing.

The ham radio community has a very negative public image, so women and young people wouldn't take part in a hobby that's dominated by semingly bunch of old farts totally lacking in basic social skills.

Would you want to spend a Saturday evening having dinner with a ham radio operator?

I don't think so!

Hey guys, it is 2002, not 1952.

Tom Welch

3086. Re: Undecided.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 16:14:36 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <MPND9.148805$E54.522402@news1.east.cox.net>
Source record: 130725

"Ronald J Bilodeau" <va3sgr@vianet.ca> wrote in message
news:3DD78C23.78780992@vianet.ca...
> Hi, I would like to know which is the best antenna between th Comet GP-6
> and the Diamond X-200A.
> Also Is the Anli A100B as good as the Diamond X50A because it is only 3
> feet tall?
> Thank you very mutch.
> RON VA3*SGR

Antenna gain for a VHF vertical is directly related to the antenna length.
A
2-meter SuperStationmaster commercial vertical colinear antenna is
over 22 feet long, and has a rated gain of 4.8dBd on 146 MHz. Compare
that to the advertised gains for some of the amateur offerings... I'd
be very leary of any advertising claims, especially for a physically small
antenna.

Pete

3087. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 16:45:44 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <utvc5nas6gdef1@corp.supernews.com>
Source record: 130726
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

John S. Dyson wrote:
> "Bill M" <""exray\"@n-o- .caribe.net> wrote in message
news:utu92ifvm5jmd4@corp.supernews.com...
>
>>Bottom line is that- 1) 5 wpm ain't all that tough and 2) outsiders
>>looking in to the amateur radio service don't necessarily have the same
>>perspective of those already inside. Pity that it translates into a we
>>vs. them scenario but thats human nature.
>>
>
> I agree that 5wpm isn't all that tough for many people, but learning technical
> competency with a REAL technical exam would be a better allocation of time
> for newbies. Exclusive clubs based upon anachronisms isn't helpful. Exclusive
> clubs based upon competency, public service and even creating a larger
> 'technical' gene pool isn't a perfect thing, but much more socially justifiable than
> 'secret handshakes' like Morse code.
>
> John

That description of the Code fits the outsider viewpoint exactly. I'd
guess that more than half of the new 5 word-per-minuters cannot copy 5
wpm so there's hardly a secret society mentality. Last I remember the
code test was a multiple choice thing that doesn't even require solid copy.
So in some regards the code test is simply a 'trial by fire' and in
reality has been degraded so much as to be moot.
In the meantime, if int'l law says it must be done that way then I guess
one has to comply until it changes if you want to get on HF.
-BM

3088. Re: 4NEC2 ver 5.0 Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 16:59:58 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <obcvtu8lrja9jn6uquj75h66n0lqjocos8@4ax.com>
Source record: 130727

On 23 Nov 2002 05:40:15 -0800, jim.bolinger@lintek.aeroflex.com (JLB)
wrote:

|> Under "Settings", "General Setting" make sure that the Nec2DXS engine
|> is selected. In my case, with Nec2d selected it doesn't compute
|> either.
|
|Thanks, Wes. That was it.
|
|It seems to work OK now, except when I do the '3D' option I get an
|error about not finding the 'gnd.bmp' file, then it goes ahead and
|works anyway. I had moved the 4nec2 directory to the c:\ root. Now
|that I got it to work I will try moving it back to where I want it. I
|like to be able to organize my programs a bit, according to category.

Me too. I have all of my antenna programs in C:\AntennaModeling
(surprise) and by fiddling with the .ini file I have most everything
working. The exception is using ICECAP where everytime I try
something 4nec2 can't find some subdirectory or another. I just keep
adding directories as the errors pop up. Sooner or later, I'll have
them all <g>.

|
|There's a couple of other minor errors that come up, too, but I think
|they have something to do with not having some directory set up.
|
|...and I am even mor impressed by the 3D pattern display, with color
|option. A bit more 'spit and polish' and 4NEC2X will be a real
|winner!

Getting 3D to work on my machine was a real bitch. Arie and I worked
back and forth a lot and I finally found a new driver for my video
card. It works flawlessly now, except the driver isn't "XP approved"
and automatic powering down of the monitor hangs up. Such is Windoz I
guess.

Wes

3089. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 17:16:39 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <arod5njdo1@venus.btinternet.com>
Source record: 130728

Dear Richard Clark, are you unable to imagine the effect your contributions to this newsgroup have on the opinions of other participants in these mostly good-natured discussions ?

Reg, G4FGQ

3090. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 17:26:38 UTC
From: paulfriedman@attbi.com
Message-ID: <iTOD9.91392$__1.53589@rwcrnsc51.ops.asp.att.net>
Source record: 130729
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

Just for the record, Bill, the code test was changed to fill-in the blank.

As a new ham (licenses 13 months -- I sat for all 4 elements at once), my feelings re CW requirements are mixed. It is certainly a key part of the history of radio and our hobby. It is certainly a valid communications mode. My objection to the 5 wpm is that it is basically neither fish nor fowl. Studying to pass a 5 wpm receive only test is not the way to learn code. A valid agreement can be made, in fact, that it is exactly the wrong way to learn code. (At 5 wpm receive only, the best way to pass the test as quickly as possible for many people is to "see" the di dahs in one's mind and translate character by character. If there is a worse way to learn code in a way that building receive speed and learning to send, I can not think of it.

Purely theoretically (treaties and such aside), I would have little problem with a send/receive test at a reasonable minimum speed (10 or the mystical 13 wpm) or eliminating the CW test completely. As currently constituted, the U.S CW test results, I think, in REDUCING interest in learning CW.

Regarding the written tests...
It would help if the VEC group found an educator to review the tests. I haven't looked at the new Extra question pool, but the old one would never pass mustard as a beginning Ed. course Too many of the wrong answers are clearly wrong merely by reading them without any knowledge of radio theory or regulations. Too many of the right answers have an easily memorized pattern. Please note that this is comment in no way addresses WHAT subjects should be in the test nor to what depth - merely a comment on the quality of the questions. That said, I do recognize that writing "good" multiple guess questions is extremely difficult.

Finally (for anyone bored enough to read this far), by far the most difficult task I faced in becoming a ham was learning to solder 259s. One aspect of voice communications I have yet to learn (more accurately "have not been willing to learn") is referring to my self in the first person plural as in "We have been licensed since 19xx and we feed our XX with a YY."

73

Paul ab0si

"Bill M" <""exray\"@n-o- .caribe.net> wrote in message
news:utvc5nas6gdef1@corp.supernews.com...
> John S. Dyson wrote:
> > "Bill M" <""exray\"@n-o- .caribe.net> wrote in message
news:utu92ifvm5jmd4@corp.supernews.com...

> >
> >>Bottom line is that- 1) 5 wpm ain't all that tough and 2) outsiders
> >>looking in to the amateur radio service don't necessarily have the same
> >>perspective of those already inside. Pity that it translates into a we
> >>vs. them scenario but thats human nature.
> >>
> >
> > I agree that 5wpm isn't all that tough for many people, but learning
technical
> > competency with a REAL technical exam would be a better allocation of
time
> > for newbies. Exclusive clubs based upon anachronisms isn't helpful.
Exclusive
> > clubs based upon competency, public service and even creating a larger
> > 'technical' gene pool isn't a perfect thing, but much more socially
justifiable than
> > 'secret handshakes' like Morse code.
> >
> > John
>
> That description of the Code fits the outsider viewpoint exactly. I'd
> guess that more than half of the new 5 word-per-minuters cannot copy 5
> wpm so there's hardly a secret society mentality. Last I remember the
> code test was a multiple choice thing that doesn't even require solid
copy.
> So in some regards the code test is simply a 'trial by fire' and in
> reality has been degraded so much as to be moot.
> In the meantime, if int'l law says it must be done that way then I guess
> one has to comply until it changes if you want to get on HF.
> -BM
>

3091. Great pictures of AO-40 antennas over the world.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 18:02:56 UTC
From: Peter ON5US <on5ushaalmijhieruit@easynet.be>
Message-ID: <3ddfc31f$0$30449$afc38c87@sisyphus.news.be.easynet.net>
Source record: 130730
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment

Hi,
a lot of antenna pictures about AO-40 of different stations over the world
can be found at the new website of Marc, ON6AA.
Homepage: http://www.qsl.net/on6aa/
This website is still under construction, so new pictures can be added very
soon.

--
Met vriendelijke groeten, Peter.
73's de ON5US

Please visit the radioamateur-homepage of UBA-section OST at
http://users.skynet.be/uba-ost/

Een fan van KISS?? Bezoek dan http://www.kisstory.be eens!!!

3092. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 18:18:39 UTC
From: Jim Pennino <jimp@specsol.com>
Message-ID: <arogpv$20f$1@mail.specsol.com>
Source record: 130731
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

In rec.radio.amateur.misc Brenda Ann <brendad@shinbiro.com> wrote:
> I'm far from a computer guru, but aren't all high level computer languages
> written in assembly/machine code? Aren't they all just basically interfaces
> between the processor (machine language) and the operator??

In the early days this was true, but not very much anymore.

Once you have a "high level language" compiler, you can write the next
version in the compiler language; these days mostly C.

Simple example; the GNU C and C++ compilers have been written in C and
C++ for many years now as have most compilers and operating systems.

While assembly is still used somewhat, it is nowhere as pervasive as it
once was.

--
Jim Pennino

3093. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 18:27:38 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0211231027.439bebc2@posting.google.com>
Source record: 130732

Hi guys,
Thanks for the reply. The hardest part i am facing is to make
it work on dual frequency with similar behaviour as the dominant mode.
I tried couple of things like placing another slot inside a slot.
Thats kindaworking but not meeting the specifications. I need your
expertise .

Thanks in advance.

Richard Clark <kb7qhc@attbi.com> wrote in message
news:<o82ttu47bimdi41i3p6ohq6270muj4k1s2@4ax.com>...
> On 22 Nov 2002 08:48:32 -0800, anandnavaneeth@hotmail.com (anand)
> wrote:
>
> >Hi,
> > I need some info on coplanar patch antenna. It seems to be a
> >interesting topic and only few papers are available. I would really
> >appreciate if someone provide me with some details.
> >
> >Thanks in advance.
>
> Hi Anad,
>
> So few papers? Sounds like there's room enough for you to wade right
> in and start writing your own.
>
> You might start right now in telling us why you think it is an
> interesting topic. You could then summarize the results of your
> reading. And then you could offer an analysis. [and if you respect
> our opinion, you show it with these gestures]
>
> Three sentences, paragraphs, pages, chapters or volumes are merely
> refrains of the same tune. Give us the hardest part of this harmony:
> three sentences.
>
> 73's
> Richard Clark, KB7QHC

3094. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 18:31:40 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211231031.589b5ed6@posting.google.com>
Source record: 130733

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<19717-3DDEF5BB-456@storefull-2311.public.lawson.webtv.net>...
snip
>
> What is the main advantage of your antenna and what results do you have
> which confirm that advantage?

Well at odd times I have said most of the following
but here goes. My antenna does work on all frequencies
but it only half of a success because those that know better
says it can't, so if I do get on the radio sometime again
I must be careful to not explain the antenna for fear
of being called a liar.
On my past work I found that in some cases (frequencies) my
single element showed evidence of some front to back which
my modeling also confirmed.
This anomoly occurred from the two main loop sides which
are huge factors when going towards top band.It seemed that
one side of the loop did not always radiate
at the same phase and thus created small front to back.
When I use the new form I am hoping for more consistency in
the radiation footprint ala consistency.
In former designs especially those with more than one element
the capacitors were in the boom which ofcourse is a larger diameter.
Because this side of the loop was at right angles to the
radiating elements the characteristic I am talking about was not
evident but at the time I was concentrating more on using one motor
to operate ALL elements. I have possibly over estimated my abilities
to place all inside the smaller element with special attention
to weight but for every setback I have made two strides forward so
all is not lost tho I may be replaced as a husband if I don't get
a success soon. Seems like Cecil and I are in the same boat regarding
work levels.
Art

3095. Re: Info on RX noise bridge from Ham Radio Magazine

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 18:35:46 UTC
From: Eskay <Nospamve3jua@rac.ca>
Message-ID: <3DDFCA82.22E69941@rac.ca>
Source record: 130734

I have scanned the article,,,Does anyone else want it?
VE3JUA.

Kent Haase wrote:

> There was an article in the March '83 Issue of Ham Radio Magazine by K2ST
> for a Precision Noise Bridge. If anyone can make a copy, I'd like one, too.
>
> Kent VE4KEH
>
> "Kristinn Andersen" <kiddi@marel.is> wrote in message
> news:b7cca008.0211211744.3c1ea1c3@posting.google.com...
> > Some years back I constructed an RX noise bridge from an article in
> > Ham Radio Magazine. The article appeared probably sometime in the
> > 1980's, but possibly even back in the late 70's.
> <snip>
> > It looks like I have lost this article, so any info would be
> > appreciated.
> >
> > 73 de TF3KX, Kristinn

3096. Re: gain without pain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 18:56:10 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DDFCF4A.299C24FA@cwis.net>
Source record: 130735

I can't either...
You're welcome
'Doc

3097. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 19:16:40 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDFD418.9B669E50@ieee.org>
Source record: 130736
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

Bill M wrote:
> Last I remember the
> code test was a multiple choice thing that doesn't even require solid copy.

That has been changed.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3098. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 19:51:44 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <arom8gssm2@sparta.btinternet.com>
Source record: 130737

Boys, sorry to admit I don't know what grits are. But I got the sense of the jokes which I found very funny.

Do grits work the opposite way to Viagra ?

Reg

3099. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 20:05:22 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <hyOdnU1Ij-tTcEKgXTWcow@ctc.net>
Source record: 130746

From the Quaker Grits FAQ.
Grits are made from the milling of corn kernels. The first step in the process is to clean the kernels; then, the grains are steamed for a short time to loosen the tough outer hull. The grain kernel is split, which removes the hull and germ, leaving the broken endosperm. Heavy steel rollers break up the endosperm into granules, which are separated by a screening process. The large-size granules are the grits; the smaller ones become cornmeal and corn flour.
++++++++++++

It could be Girls Raised in the South :-)

They have much the same effect in the South as Viagra, but only if you are from the Southern United States :-)

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message news:arom8gssm2@sparta.btinternet.com...
> Boys, sorry to admit I don't know what grits are. But I got the sense of the
> jokes which I found very funny.
>
> Do grits work the opposite way to Viagra ?
> ---
> Reg
>
>
>

3100. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 20:17:58 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211231217.17574749@posting.google.com>
Source record: 130738

OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DDF0651.6CF7B3B8@ieee.org>...
> Reg Edwards wrote:
> > By the way, what was your crime?
>
> Sorry to say, certain sex acts with my wife are still
> against the law in Louisiana.

Close but no cigar.

Art

3101. Re: "Even Saddam Hussein gets Spam..."

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 20:33:56 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <b8mvtuopk479q5fdiql4u0lha6n8l7iid3@4ax.com>
Source record: 130739

On Fri, 22 Nov 2002 10:06:41 -0500, Stevo <mrstevo99@hotmail.com>
wrote:

>Richard Clark wrote:
>
>> On Mon, 18 Nov 2002 14:39:22 -0500, "Fred Hambrecht Sr."
>> <w4jle@charter.net> wrote:
>>
>>>Do you really believe that the government was too stupid to figure this
>>>out by themselves?
>>
>> All Hail Bush!
>
>What would you rather have, all hail Al Gore ??
>Given the choice and the
>circumstances, I would rather have 'ol Georgy-boy in there than what we
>have had for the last eight years. At least now we are trying to clean up
>the situation instead of sitting around telling each other how great other
>cultures are and how bad America is.
>
>I am no fan of the present administration in some areas (i.e. the Patriot
>Act), but I will take it over the alternative. I would shudder to think
>what would be happening if Al Gore had gotten in there. You could pretty
>much just hand over you guns after 9/11.
>
>Stevo
>
>

All Hail Bush!

You come close to that Right-Whine about guns. We here in the Pacific NW are particularly close on that issue too. Especially when the DC area snipers were traced back here to where they stole that gun.

From one store alone, the source of the sniper's rifle, more than 300 guns were stolen THIS YEAR! And that is up from about 250 FOR LAST YEAR! Responsibility and the Conservatives seem alien counter cultures.

The friend of the store owner expressed amazement at how the sniper got the rifle. To his estimation, the owner was on the ball and closely managed access and sales lest some miscreant arm himself through this honest dealer. With the yearly average of losing one weapon a day out the door - this is the best we can expect? Anyone who is on the ball, is not losing a profit when that gun goes out the

door - "stolen" or otherwise. I've heard that gutless refrain of "only thieves will have guns" till my ears bleed; I'm in no mood to listen to it again when it only takes a wink and a nod to step around the system. A "thief" doesn't need to rob anyone for a new gun. And the enforcement side of this? Gutted by budget cuts and emasculated through diluted rules, Conservatives had this hog-tied and ignored the booming back door trade. The Right-Whiners don't have the guts to put the shop owner against the wall with the snipers and let them count lead. And I don't want to hear that soap opera "How it's Clinton's Fault." Conservatives yowling that like rutting cats in the night don't catch mice.

When Bush spoke that to take care of Saddam, it would only take "one bullet," he exposed just how easily he could shrug off those same single rounds bringing down civilians. I wondered how he must've restrained himself from telling us that sniper's have constitutional rights too. To his credit he held back - lest he look like another sniper-hugger. Our security is going to hell in a hand basket and the politicians are having a field day creating one more department and padding their pay.

Of course, "this will take some time."

However, you have had nothing to say about the HAARP applications towards the coming war. Myself, I would be supremely interested in Amateur HAARP and making my contribution to the war effort. Also, I would like to see Amateur RADAR as a acceptable mode of operation. I still find fascination in "igniting large sections of the atmosphere."

death to terrorists!
Richard Clark, KB7QHC

3102. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 20:35:16 UTC
From: N2EY@AOL.COM
Message-ID: <c2356669.0211231235.3a05e6db@posting.google.com>
Source record: 130740
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

"Dee D. Flint" <dee.hays@sbcglobal.net> wrote in message
news:<EEND9.2591$4j5.1450917@newssvr28.news.prodigy.com>...
> I was being sarcastic and trying to point out that the same argument can be
> used for anything that a person doesn't want to learn.

Exactly. Why should I have to learn about UHF techniques to operate
HF? Why should I have to learn the VE rules if I'm not going to be a
VE?

> Personally I happen
> to think that there should be more basics included in testing.

Actually, all of the testing now is the basics!

> For example,
> I think every ham should have to demonstrate that they can solder a
> connector to a coax successfully. However they don't have become soldering
> experts.

We've been this route before, but here goes:

First off, you'd have to define "coax" and "connector". Think of all
the variations, from RG-174 to Heliax, from SMA connectors to type N.
Would soldering RG-58 to an RCA phono plug be sufficient?

Who judges the quality of the job?

What about those who are physically impaired to the extent that
soldering is impossible or very difficult?

You'd have to deal with those who would point to the wide availability
of crimp-on connectors and automated assembly. They'd say that manual
soldering is an anachronism. Heck, the UHF connector has been around
for more than 55 years!

It's possible to assemble an entire amateur radio station without coax
or soldered connectors, too.

Most of all: Our licenses are for operating, not building or
soldering.

73 de Jim, N2EY

3103. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 20:37:35 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <tppvtu8vdn0jei5bqrjd640oqeh0mv15aa@4ax.com>
Source record: 130741

On 23 Nov 2002 10:27:38 -0800, anandnavaneeth@hotmail.com (anand)
wrote:

>Hi guys,
> Thanks for the reply. The hardest part i am facing is to make
>it work on dual frequency with similar behaviour as the dominant mode.
>I tried couple of things like placing another slot inside a slot.
>Thats kindaworking but not meeting the specifications. I need your
>expertise .
>
>Thanks in advance.
>
Hi Anad,

A good beginning. What are the two frequencies and describe the
Specification you are trying to meet.

73's
Richard Clark, KB7QHC

3104. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 20:43:08 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDFE85C.46E0AF7D@ieee.org>
Source record: 130742

Reg Edwards wrote:
>
> Boys, sorry to admit I don't know what grits are. But I got the sense of the
> jokes which I found very funny.
>
> Do grits work the opposite way to Viagra ?

Reg, don't let them pull your leg. Grits are good, much like Cream of Wheat,
and are a lot healthier for breakfast than Fried Hash Brown Potatoes.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3105. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 20:45:55 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DDFE903.62C23197@ieee.org>
Source record: 130743

Art Unwin KB9MZ wrote:
>
> OC_CAM's_Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DDF0651.6CF7B3B8@ieee.org>...
> > Reg Edwards wrote:
> > > By the way, what was your crime?
> >
> > Sorry to say, certain sex acts with my wife are still
> > against the law in Louisiana.
>
> Close but no cigar.

I just saw a TV special on it, Art. The ancient sodomy laws that
have been thrown out in virtually every enlightened state, have
been recently upheld by the Louisiana Supreme Court.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3106. Re: Re: EZNEC 3.0 Above Ground Vertical Question - Vert1 Above Ground.ez(0/1)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 20:47:01 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <6fpvtuoi8kss71cms79bq5dbupp9nea2ot@4ax.com>
Source record: 130744

Thanks for the explanation, Roy. I think I've got it now.

My first problem was that I missed the part in the help file about the transmission line only supporting equal and opposite currents, and what I tried to do was force the transmission line to work as a thing with 2 independent conductors. I also misunderstood how the transmission line would connect to a source. From what I understand now, each line will automatically connect to the corresponding terminal of a source, and support equal and opposite currents. In effect, since an ideal transmission line would not radiate, it follows that the same ideal transmission line would only carry fields that cancel out (ie. equal and opposite).

My second problem was that I tried to model a situation that could not physically happen in the real world. Consistent with the "garbage in, garbage out" principle, I shouldn't expect real world answers to an unreal situation. However, EZNEC did an admirable job producing meaningful results. It's just that I didn't understand what it was telling me (until now).

Thanks again.

--Mike

----------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

3107. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 20:51:09 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <p7qvtusjaet5qmj4f07bmb8tf2t3b7p20o@4ax.com>
Source record: 130745

On Sat, 23 Nov 2002 17:16:39 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>Dear Richard Clark, are you unable to imagine the effect your contributions
>to this newsgroup have on the opinions of other participants in these mostly
>good-natured discussions ?
>---
>Reg, G4FGQ
>
>
M'Dear Reg,

That's a warm and fuzzy, squishy kinda question, uncommon from your
rather indifferent troll like attitude. And asking a question in a
passive form "unable to imagine?" Rather milquetoast in contrast to
your usual bluff and bravado. Polishing your halo before Christmas?

I am getting a kick out of your new persona of - well I kinda gotta
guess - good-nature patrolman?

OK Officer, did I drive over your toes? ;-)

73's
Richard Clark, KB7QHC

3108. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 21:22:43 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DDFF1A2.743DF7C4@cwis.net>
Source record: 130747

Reg,
Not only do they work the opposite of viagra,
they are the (-1) of the food world, they work
the opposite of everything...
'Doc

PS - The famous last words of General Custer were;
"A day without grits can't be all bad."

3109. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 21:25:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <utvsj4fkk9h0fa@corp.supernews.com>
Source record: 130748

Porridge, made from white corn (maize).

Roy Lewallen, W7EL

Reg Edwards wrote:
> Boys, sorry to admit I don't know what grits are. But I got the sense of the
> jokes which I found very funny.
>
> Do grits work the opposite way to Viagra ?
> ---
> Reg
>
>
>

3110. Re: Attenuation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 22:00:12 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <2uKcnd8otrMqlX2gXTWcpA@ctc.net>
Source record: 130754

The loss is too small to be noticed in the adapter.
Spend the time and effort on a beter antenna.

> For scanner reception I have a Nevada discone D1300 with 60' of Andrew
> LDF4-50 heliax terminated with "N" connectors, the rear of my scanner
> accepts a female "BNC". I know that I need a adapter for it, in which I
know
> there would be some loss, but I wanted some input to see if it would be
> better to change the scanner internally to the "N" type to nullify the dB.
> loss......
>
>

3111. Re: TA-33 dimensions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 22:02:31 UTC
From: pho <pho@crocker.com>
Message-ID: <3DDFFAF7.7070606@crocker.com>
Source record: 130749

I now have the original manual, and it shows that the DE is closer to
the director... who'd guess?
Peter N1AGV

Dick Carroll wrote:

>Tarmo Tammaru wrote:
>
>
>>The only question is as to which is the director end and
>>which is the reflector end of the boom.
>>
>>
>
>
>
>
> The director end will be the end with longest spacing to the driven
>element, and the reflector end will be the end with shortest spacing to
>the DE. True for any 'standard' three element yagi.
>
>Dick
>
>

3112. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 22:15:40 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aroumbdng1@venus.btinternet.com>
Source record: 130750

> I'm interested in a wide variety of
> tasks, including matching at multiple frequencies, being able to use
> lumped as well as transmission line components, being able to
> understand (visualize) the degree of match over a band of frequencies,
> and designing pass-reject filters. I'm sometimes also interested in
> the effects of line loss, generally when the impedance ratio is high.
> For my work, it's not so much a "vs" as you put in your subject line,
> as it is another tool to join Smith and Gates and some others, each to
> be chosen when appropriate.
==========

Tom,
Do you use Smith charts to design/analyse transformers with high impedance ratios where line loss can have a significant effect on line dimensions? I would have thought the complexity was well beyond Smith chart capabilies although I admit never to have used one in anger. There is, of course, the inevitable Smith chart error which assumes Zo to be purely resistive.

I have a program which does the same job as STUMATCH but with a lot more thrown in. It uses exact classical trans-line calculations to take line loss fully into account. But it is much more complicated to use because line dimensions and frequency must be included in the input data. I havn't put it my website because its complexity detracts from its usefulness for the majority of stub and similar -line designers of which I assume there are not very many anyway. From what you say I will tidy it up and put it on the website.

From a line constuction point of view, how close an approximation to working line length is acheived by adding to the computed length half the conductor spacing ? c/c, o/c ?

Reg, G4FGQ

3113. Attenuation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 22:23:16 UTC
From: J POP <pop4214@yahoo.com>
Message-ID: <S32dnREINu-HnX2gXTWcpA@comcast.com>
Source record: 130751

For scanner reception I have a Nevada discone D1300 with 60' of Andrew LDF4-50 heliax terminated with "N" connectors, the rear of my scanner accepts a female "BNC". I know that I need a adapter for it, in which I know there would be some loss, but I wanted some input to see if it would be better to change the scanner internally to the "N" type to nullify the dB. loss......

3114. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 22:52:18 UTC
From: Bill Sohl <billsohl@mindspring.com>
Message-ID: <arp0tc$2l1$1@slb0.atl.mindspring.net>
Source record: 130753
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"KC8PMX" <kc8pmx@NOSPAMdiamondcs.net> wrote in message
news:arnpdg02nl0@enews2.newsguy.com...
> Yep... overall the hobby is declining, but it is not from the testing
> procedures.

So how come the number of US hams is at an all time high?
Are people just getting licenses, upgrading, etc and then not
operating at all?

> Anything viewed worthwile by someone is worth pursuing as well
> as whatever obstacles along the way. The root of the problem is in the PR
> side. I still run into tons of people that didn't even know ham radio
> existed. A much smaller group associates it with CB from my own local
area
> experiences. We need to promote the hobby more.

Agree 100%.

> We need to get ham radio
> into the schools, associate it with the cirriculums. We need to start
doing
> things that WILL get people coming to us, to become hams. Testing
sessions
> with a mere few testee's definitely reflects that there is a problem with
> promotion of the hobby. But that would take actual action by people and
god
> forbid that eh????

Agree again!

Cheers,
Bill K2UNK

3115. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 23:11:03 UTC
From: Bill Sohl <billsohl@mindspring.com>
Message-ID: <arp213$2q8$1@slb9.atl.mindspring.net>
Source record: 130755
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Tom Welch" <pm4hire@excite.com> wrote in message
news:52a66032.0211230809.30598869@posting.google.com...
> Check Your Stats:
>
> On a per capita basis, the ham radio community is shrinking

Not sure that is totally accurate. N2EY can
perhaps add more historic data to answer state the facts.

> and
> going nowhere.

That depends on what any one indivdiual wants
ham radio to be viewed as.

> And on a per capita basis, Japan has twice as
> many ham radio operators as the United States.

That troubles me not at all.

> The ham radio community is 50 years behind the
> times by holding on to this code thing.

Agree 100% if you are talking about the code TEST.
I have no problem with anyone wanting to use code as
a choosen mode.

> The ham radio community has a very negative public image, so women
> and young people wouldn't take part in a hobby that's dominated by
> semingly bunch of old farts totally lacking in basic social skills.

Actually, I think the ham radio community has almost NO
image at all in the minds and perceptions of most people.

> Would you want to spend a Saturday evening having dinner with a
> ham radio operator?

Sure. Hams are, for the most part, normal people like
everyone else. Are there extremists? Sure, but every hobby
has its extremists...be it antique cars, model trains,
or whatever.

> I don't think so!

Why not?

> Hey guys, it is 2002, not 1952.

Agreed....

Cheers,
Bill K2UNK

3116. Re: Attenuation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 23:17:05 UTC
From: K7JEB <k7jeb@arrl.no_spam.net>
Message-ID: <R%TD9.28644$hK4.2469904@bgtnsc05-news.ops.worldnet.att.net>
Source record: 130756

"J POP" <pop4214 @ yahoo.com> wrote

> For scanner reception I have a Nevada discone D1300 with 60' of Andrew
> LDF4-50 heliax terminated with "N" connectors, the rear of my scanner
> accepts a female "BNC". I know that I need a adapter for it, in which I know
> there would be some loss, but I wanted some input to see if it would be
> better to change the scanner internally to the "N" type to nullify the dB.
> loss......

You would be just fine with a short (about a foot)
"pigtail" of RG-213 cable having a male N connector
on one end and a male BNC on the other. Get an
experienced technician to make it up for you. It
will not have any greater loss than an adapter.

Do not modify the radio. It simply isn't needed.
BNC connectors are OK up to several GHz.

I am assuming that you misstated the connector
on your scanner - that it actually has a female
BNC connector on it. I haven't seen any scanners
that accept a female BNC (ie: there is a male
connector on the radio).

Good luck!

--
Jim Bromley, K7JEB k7jeb @ arrl.net
Glendale, Arizona

3117. Re: Attenuation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 23:21:26 UTC
From: K7JEB <k7jeb@arrl.no_spam.net>
Message-ID: <W3UD9.28653$hK4.2467030@bgtnsc05-news.ops.worldnet.att.net>
Source record: 130757

I posted:
> You would be just fine with a short (about a foot)
> "pigtail" of RG-213 cable having a male N connector
> on one end and a male BNC on the other

Make that good-quality RG-58 or RG-8X rather than
RG-213. I was thinking UHF connector, not BNC.

Jim, K7JEB

3118. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 23:23:54 UTC
From: "Dee D. Flint" <dee.hays@sbcglobal.net>
Message-ID: <e6UD9.2638$4j5.1492696@newssvr28.news.prodigy.com>
Source record: 130752
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

"N2EY" <N2EY@AOL.COM> wrote in message
news:c2356669.0211231235.3a05e6db@posting.google.com...
> Most of all: Our licenses are for operating, not building or
> soldering.
>

Actually our licenses are supposed to mean that we are competent to run our stations within the requirements of the FCC and that we are responsible for the quality of our output signal.

3119. DX-Ultra

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-23 23:24:05 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92CFB218CC2D3michalkunyahoocom@128.233.3.7>
Source record: 130758

Does anyone out there tried DX-Ultra shortwave antenna by Alpha Delta?

3120. Jaybeam TB3 Pictures?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 00:09:32 UTC
From: Richard <richard.uk@talk21.com>
Message-ID: <arp5bs$75j$1@knossos.btinternet.com>
Source record: 130759

Hello

Does anyone have any pictures of the Jaybeam TB3 please?

Thanks

Richard

--

3121. Looking for 6m half wave (no radials) design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 00:16:43 UTC
From: wq1o@attbi.com
Message-ID: <45d741b3.0211231616.3629feba@posting.google.com>
Source record: 130760

Hello to all.
I am looking for a vertical 6m design for fm work. The application will be for ARES operations. I need a design with no radials, as it may be used in an area where radials would be cumbersome in setting up. I already use hamsticks with a homebrew copper "mounting hub" for groundplane configurations on some home stations. These seem to work fine. In some potential shelter support operations, a design with no radials would be easier to deploy in the shelter area. I've started looking into the idea of half wave gamma loop fed verticals. I recently have seen a Q-Stick antenna which looked to use this method. I wouldn't mind building something similar. It would also make a great construction project for my ARES group. I was not able to look at the inside of the Q-stick, but assume it's similar to a regular "Ringo" design. I'm looking to see if anyone has any info about how this antenna is constructed(is there also a cap./or coil involved?) or if they have any other 6m gamma loop fed vertical designs to share. I'm also particularly interested in the gamma loop feed and how its circum/spacing is determined. Thanks in advance to all who respond. My best wishes for a safe and happy Holiday Season to all.
73s Frank WQ1O
Cape Cod ARES

3122. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 00:18:45 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <arp5t4$7vn$1@knossos.btinternet.com>
Source record: 130761

Dear Richard, Circus Ringmaster,

For your own benefit, in plain unambiguous English, your logic circuits are becoming even more deranged. It shows in your Lewis Carol, Alice in Wonderland style of writing.

Just admit you were wrong, call me a nitpicker and obtain some relief from this trivial Tweedle Dum and Tweedle Dee matter.

Please go ahead. Have the last say. I promise not to reply.

<Cheshire cat grin>

Yours, Reg, G4FGQ

==========

"Richard Clark" wrote -
>
> M'Dear Reg,
>
> That's a warm and fuzzy, squishy kinda question, uncommon from your
> rather indifferent troll like attitude. And asking a question in a
> passive form "unable to imagine?" Rather milquetoast in contrast to
> your usual bluff and bravado. Polishing your halo before Christmas?
>
> I am getting a kick out of your new persona of - well I kinda gotta
> guess - good-nature patrolman?
>
> OK Officer, did I drive over your toes? ;-)

3123. Re: Looking for 6m half wave (no radials) design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 00:22:45 UTC
From: Roger Leone <arleoneNoSpam@inreach.com>
Message-ID: <4SVD9.255$d5.97786932@news.inreach.com>
Source record: 130762

Frank:

A "J" is a half wave radiator with no radials. Many designs are around, incuding some using twinlead that you can hang from a tree or other convenient support.

An aluminum tube J was my first 6 meter antenna many years ago and it worked quite well, both on local contacts and DX when the band was open. I have used them on several other bands as well.

Roger K6XQ

3124. Re: Looking for 6m half wave (no radials) design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 00:41:40 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <8fVD9.26159$ro.911487@news2.west.cox.net>
Source record: 130763

Frank - several 6M antenna projects at URL:
http://ac6v.com/antprojects.htm
Includes a halo and J-pole

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"Frank Olaughlin" <wq1o@attbi.com> wrote in message
news:45d741b3.0211231616.3629feba@posting.google.com...
> Hello to all.
> I am looking for a vertical 6m design for fm work. The application
> will be for ARES operations. I need a design with no radials, as it
> may be used in an area where radials would be cumbersome in setting
> up. I already use hamsticks with a homebrew copper "mounting hub" for
> groundplane configurations on some home stations. These seem to work
> fine. In some potential shelter support operations, a design with no
> radials would be easier to deploy in the shelter area. I've started
> looking into the idea of half wave gamma loop fed verticals. I
> recently have seen a Q-Stick antenna which looked to use this method.
> I wouldn't mind building something similar. It would also make a great
> construction project for my ARES group. I was not able to look at the
> inside of the Q-stick, but assume it's similar to a regular "Ringo"
> design. I'm looking to see if anyone has any info about how this
> antenna is constructed(is there also a cap./or coil involved?) or if
> they have any other 6m gamma loop fed vertical designs to share. I'm
> also particularly interested in the gamma loop feed and how its
> circum/spacing is determined. Thanks in advance to all who respond. My
> best wishes for a safe and happy Holiday Season to all.
> 73s Frank WQ1O
> Cape Cod ARES

3125. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 00:56:01 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <arp82v$c2v$1@slb3.atl.mindspring.net>
Source record: 130764

Grits, grits... did someone say grits!

Hey I lived in Huntsville, AL for 5 years, and I never ate grits.

Of course when I ate out, I usually ate at the "Ol Heidelberg" with the
rest of the "rocket scientists",
where I ate bratworst, and drank Spaten ale along with other Bavaian
delights.

Heh, heh... if you have only visited Huntsville for a few days or even a
month as Tom indicated he had,
why then you have not really sampled Huntsville's many charms. Located at
the southern extremity of
the Appalachan mountains in a verdant valley along the beautiful Tennessee
River, Huntsville, AL is a
wonderful town with more Ph.D's per square mile than any other place in
America.

The US Space and Rocket Center is located there, along with the Redstone
Arsenal, the Marshall Space Flight Center,
and most of America's premiere aerospace companies. It has two
Universities, and many interesting commercial
companies, such as the world's greatest xDSL company, Adtran, Inc,. the
third largest software company in the
country, Intergraph, to whom Intel pays royalty homage, as well as many
others... such as the "inventor's" of
ultra wideband radio systems, etc... etc...

Each year in August, they host one of Americals premiere hamfests, the
Huntsville hamfest.

In addition Huntsville is the ice hockey capital of the American South, with
two league leading teams, one semi-pro
and one Division one NCAAU college team, the UAH "Chargers", playing each
winter at the Von Braun Civic Center arena.

The Huntsville Amateur Radio Club usually sweeps the annual Field Day
contest with their high energy entries.

What more could you ask, all that and grits too?

--
Peter K1PO
Indialantic By-the-Sea, FL

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:arom8gssm2@sparta.btinternet.com...

> Boys, sorry to admit I don't know what grits are. But I got the sense of
the
> jokes which I found very funny.
>
> Do grits work the opposite way to Viagra ?
> ---
> Reg
>
>
>

3126. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 00:58:47 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <arp885amq1@slb3.atl.mindspring.net>
Source record: 130765

Thread:

[snip]
> I just saw a TV special on it, Art. The ancient sodomy laws that
> have been thrown out in virtually every enlightened state, have
> been recently upheld by the Louisiana Supreme Court.
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

Yeah, but... they do have "drive through" daquari bars in "Nawlans" which seems a fair tradeoff!

--
Peter K1PO
Indialantic By-the-Sea, FL

3127. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 01:06:16 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <3DE025A7.5136D09@earthlink.net>
Source record: 130766
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Tom Welch wrote:
>
> Check Your Stats:
>
> On a per capita basis, the ham radio community is shrinking and
> going nowhere. And on a per capita basis, Japan has twice as
> many ham radio operators as the United States.

Check YOUR ststs, Tom. On a per capita basis, amateur radio is doing nicely. It is growing. Surprise!

> The ham radio community is 50 years behind the times by holding
> on to this code thing.

Your "stats" on this are what?

>
> The ham radio community has a very negative public image, so women
> and young people wouldn't take part in a hobby that's dominated by
> semingly bunch of old farts totally lacking in basic social skills.

The negative public image stuff--where can we find confirmation of it? The basic social skills part--that can be confirmed where? What kind of socially skilled individuals insults an entire group of people by calling them all "old farts"?

> Would you want to spend a Saturday evening having dinner with a
> ham radio operator?

My wife doesn't seem to mind having Saturday evening dinner with a ham radio operator. The folks who invited us to their home last Saturday evening didn't seem to mind either. I'd think most would rather have dinner with radio amateurs than with rap singers or the Clintons.

> I don't think so!

You don't think what?

> Hey guys, it is 2002, not 1952.

Yeah, and in a couple of months it'll be 2003!

Dave K8MN

3128. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 01:42:51 UTC
From: "phil :p" <just_rtfm@yahooREMOVETHIS.com>
Message-ID: <uu0dbal3a5jb63@corp.supernews.com>
Source record: 130767
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

knowing assembly makes you a better HLL programmer. a few years ago there was an online "contest" among friends to see who could write the tightest yahoo chat client. i wrote four clients... using compiler BASIC (one allowing inline assembly), C, C++, and MASM. many of the "C-only" guys [you know, the ones who constantly quote the ANSI (or ISO) C standards like they're the constitution] who bragged about how efficient C compilers were and how obsolete assembler is... could not put out tight code. the guy who put out a really nice C client understood both the hardware and how his compiler (VC++) worked. you can learn a lot by using a disassembler on the compiler's output.

i've heard all the excuses of why not to learn assembly: "assembly is not portable"... well do you plan on porting your code? code is often intimately tied to the gui and OSes API (ok POSIX). "it doesn't matter because we have a 2 GHz CPU"... fine, then go use VB instead... and that is exactly what is happening. why? because 80% of boxes run windows and people want it done yesterday. IMO learning C is easy compared to grasping the win32 api.

i like procedural over OOP because it approximates the hardware better... i prefer Dennis to Bjarne and both to Anders. Gosling and Meyer... don't even ask lol. Kemeny and his contribution were brilliant... he wasn't Einstein's math assistant for nothing... i have one BASIC compiler that is quite good. Craig is right: all languages have their place (of course that place might be the trash can j/k). C is very popular (try to find a haskell compiler for a PIC MCU) but for me it's a love/hate thing because assembler was my first language. Java is always being pushed and while it makes sense for some stuff (Servlets/JSP) it's a dog for general apps.

3129. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 01:55:07 UTC
From: richardharrison@webtv.net
Message-ID: <8729-3DE0317B-73@storefull-2313.public.lawson.webtv.net>
Source record: 130768

Jim, N2EY wrote perhaps the most cogent statement of this thread:
"Our licenses are for operating, not building or soldering."

Anybody may solder. Only licensed operators legally send radio signals
where licenses are required.

Avoidance of interference and minimum regulation are FCC goals. I
applaud their aim and wish they could go farther, faster.

Ability to "roll your own" has little to do with avoiding interference.
Knowing the rules and how to comply needs demonstration for a license.
You don`t need to know radio construction to be a good ham.

You should have something interesting to ask or say once in awhile.
There`s plenty of "rig here is blah, blah, blah." A variety of interests
adds spice to life.

Best regards, Richard Harrison, KB5WZI

3130. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 02:24:28 UTC
From: richardharrison@webtv.net
Message-ID: <3279-3DE0385C-27@storefull-2315.public.lawson.webtv.net>
Source record: 130669

Dave, K8MN wrote:
"I`d think most would rather have dinner with radio amateurs than with rap singers or the Clintons."

Amateur radio experiences been your most exciting? The Clintons and the rap singers could probably tell you somthing about real adventure and excitement.

Best regards, Richard Harrison, KB5WZI

3131. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 02:49:44 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <arpenn$1pl$1@sparta.btinternet.com>
Source record: 130670

> Huntsville, AL is a
> wonderful town with more Ph.D's per square mile than any other place in
> America.
==========
America ? Don't you mean the USA ?

God, what a boring academic place it must be, nobody ever heard of a hammer
and nails. ;o)

Reg

3132. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 03:19:45 UTC
From: richardharrison@webtv.net
Message-ID: <19717-3DE04551-598@storefull-2311.public.lawson.webtv.net>
Source record: 130671

Reg, G4EGQ wrote:
"Do grits work the opposite way to Viagra?"

Don`t know about that. I got a box of grits to sprinkle on ant hills. Ants are supposed to feed the grits to their queen. Her moisture expands the grits splitting the queen asunder. Goodbye ant colony!

I`m no advocate of this process to anyone else for any other purpose. It may be as practical as flushing baking soda down the drain to keep it sweet.

Best regards, Richard Harrison, KB5WZI

3133. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 03:49:53 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211231949.444889f9@posting.google.com>
Source record: 130672

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<armevm$om8$2@venus.btinternet.com>...
> The easiest way I know to predict the performance of
> > a leaky loop stub is to model it.
> ==========
> At last I think I'm getting the picture.

Great!

>
> If that is what Art's invention is it is easily modelled.

Correct. As long as the loop is coupled along side the dipole
but not when the loop enters the dipole.

>
> If it's a dipole closely coupled to a largish square or rectangular loop
> then the coupling coefficient between the primary and secondary circuits can
> be calculated.

Correct

>he secondary cct is tuned. It's resonant. The primary
> circuit, the loop, is untuned.

Stop!
If the dipole is the part that is fed then that is
the primary circuit not the loop which tho 'tuned'
by varying the capacitor must be termed the secondary circuit.

>The primary and secondary currents,
> efficiency and other characteristics can be calculated.

Correct, but it appears that some programs or operators are
unable to perform, since it requires the use of a constant impedance
instead of a lumped capacitive constant (pF) to obtain the correct
design. I use the AO program by Beasely which is quite old but
still predicts accurate results tho not acceptable to some.

>
> From what I remember from previous threads broadening of bandwidth was the
> design objective.

No! That was another design(Capacitive coupled element feed).
This design as an assembly (primary and secondary circuits) can be
used on any frequency. An analogy could be that we have two
frequencies that are mixed to make another frequency, by changing one
frequency the final value changes.

Of course we do know that the loop is nothing but a stub where the
radiation does not cancel itself and does provide a means of matching
as well as
providing a phase change at the center of the dipole. No matter what
the frequency used the current or radiation 'lobes' (note that the
word is plural)
of the dipole are always in phase.
Where Cecil provides the match point at the end of a transmission
line stub
mine is always at the antenna feed point. I don't have to mess with
different lengths of transmission lines or equivalents if and when I
change my frequency.
This is not meant as a slap against Cecil's aproach where the
interests are for "BANDS" where-as mine is for ALL frequencies.

>But there's no need to do any calculations - the
> bandwidth (Q) of a single tuned remains the same regardless of how the
> generator is coupled/matched to it.
>
> Don't ask me quote a theorem.

I don't mind hearing of a theorem I just want to know if it applies to
my design which is not meant for 'broadening' bandwidth but for
frequency dexterity. Of course all this doesn't really matter since it
can't
possibly work as I stated. Right?

When I get on the air with the latest form I will be silent
regarding what antenna I am using as it has not been approved.
I do not wish to take the chance of being deported or burned at a
stake
at the next ARRL Hamfest where all will be allowed to throw stones.
I still have a Cockney accent, do you think it will show
if I only use code?

> ---
> Reg

Cheers
Art

3134. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 03:57:41 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <arpinlpqe0@208.207.71.155>
Source record: 130673
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Dean Johnson wrote:
>
> On Sun, 24 Nov 2002 01:06:16 GMT, Dave Heil <k8mn@earthlink.net> wrote:
> > Tom Welch wrote:
> > >
> > > Check Your Stats:
> > >
> > > On a per capita basis, the ham radio community is shrinking and
> > > going nowhere. And on a per capita basis, Japan has twice as
> > > many ham radio operators as the United States.
> >
> > Check YOUR ststs, Tom. On a per capita basis, amateur radio is doing
> > nicely. It is growing. Surprise!
>
> "Last year at this time there were nearly 683,000 hams licensed by the FCC. As
> of October this year, there are 2235 fewer ..." -- AR Newsline.
>
> 2235 fewer hams is "growing?"

Better check for the stats at the correct source instead of trying to
support an untenable position.

> Better check your rose colored glasses in at the
> front desk.

So what color do you prefer?

3135. Re: gain without pain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 04:18:09 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3DE04FD3.567F6B76@verizon.net>
Source record: 130674

ka8uze wrote:

> cannot figure phase lengths for 10meter (phone)L1 and L2 4.95 ft element
> spacing
>
> many thanks paul werhane ka8uze

Have you got L3 and L4 worked out? What?

W4OP

3136. Re: Looking for 6m half wave (no radials) design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 04:21:39 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3DE050A5.9C418C65@verizon.net>
Source record: 130675

Frank Olaughlin wrote:

> Hello to all.
> I am looking for a vertical 6m design for fm work. The application
> will be for ARES operations. I need a design with no radials, as it
> may be used in an area where radials would be cumbersome in setting
> up.

Check out the 6M EndFedz at:
http://www.universal-radio.com/catalog/hamwire/4456.html

W4OP

3137. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 06:16:38 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <j3q0uu4ouq345l3lmgdnr2cgrutr60n4vn@4ax.com>
Source record: 130676

On Sat, 23 Nov 2002 19:56:01 -0500, "Peter O. Brackett"
<ab4bc@ix.netcom.com> wrote:

|Grits, grits... did someone say grits!
|
|Hey I lived in Huntsville, AL for 5 years, and I never ate grits.
|
|Of course when I ate out, I usually ate at the "Ol Heidelberg" with the
|rest of the "rocket scientists",
|where I ate bratworst, and drank Spaten ale along with other Bavaian
|delights.

Did they closed down Chig's and the Chicken Shack?

|
|Heh, heh... if you have only visited Huntsville for a few days or even a
|month as Tom indicated he had,
|why then you have not really sampled Huntsville's many charms. Located at
|the southern extremity of
|the Appalachan mountains in a verdant valley along the beautiful Tennessee
|River, Huntsville, AL is a
|wonderful town with more Ph.D's per square mile than any other place in
|America.

Now that is hardly a recommendation.

I think it was about 1973 when I spent my time there. We were
installing the instrumentation and launchers for the TOW Missile
"Fly-to-Buy" test range.

There was a former NASA, then a Hughes QC guy who was a local boy who
took us under his wing and showed us the sights. One sight was the
rundown farm his brother owned. Most of the conversation consisted of
his brother bitching about how there was no way to run a farm without
any Negroes (he used a less politically-correct term).

As a young man who grew up in Tucson where there were few blacks (but
a lot of Mexicans) I was shocked to sit in eateries and listen to the
talk around me. All I could think of was that I was glad I wasn't
black and living in that place. Former Nazis of course had it made. I
figured that if it had been determined that the Earth needed an enema,
they should inject it at Huntville, Alabama.

|
|The US Space and Rocket Center is located there, along with the Redstone
|Arsenal, the Marshall Space Flight Center,
|and most of America's premiere aerospace companies. It has two

|Universities, and many interesting commercial
|companies, such as the world's greatest xDSL company, Adtran, Inc,. the
|third largest software company in the
|country, Intergraph, to whom Intel pays royalty homage, as well as many
|others... such as the "inventor's" of
|ultra wideband radio systems, etc... etc...
|
|Each year in August, they host one of Americals premiere hamfests, the
|Huntsville hamfest.
|
|In addition Huntsville is the ice hockey capital of the American South, with
|two league leading teams, one semi-pro
|and one Division one NCAAU college team, the UAH "Chargers", playing each
|winter at the Von Braun Civic Center arena.
|
|The Huntsville Amateur Radio Club usually sweeps the annual Field Day
|contest with their high energy entries.
|
|What more could you ask, all that and grits too?

Yeah, but will they let you buy a drink in a bar without having to
join a "private club?"

3138. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 06:17:44 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <arpqu5$2va$1@slb6.atl.mindspring.net>
Source record: 130677

Reg:

[snip]
"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:arpenn$1pl$1@sparta.btinternet.com...
> > Huntsville, AL is a
> > wonderful town with more Ph.D's per square mile than any other place in
> > America.
> ==========
> America ? Don't you mean the USA ?
>
> God, what a boring academic place it must be, nobody ever heard of a
hammer
> and nails. ;o)
> ---
> Reg
[snip]

No Reg... I really meant America, i.e. includes, Greenland, Canada, USA,
Mexico, Belize, etc... all the way down to
Patagonia and Tierra del Fuego.

And... Huntsville is not really an academic place filled with bookish
Ph.D.'s , heh, heh... These Ph.D.'s do *real stuff*
they are rocket, explosive, projectile, chemical, etc... specialists. They
have *big* labs and make *lots* of noise.

You will note this especially because often you are startled by the whole
Tennessee Valley rocking and rattling as the
Ph.D. rocket scientists fire off those big rocket engines on the test stands
at the Redstone Arsenal over by the
Tennessee River.

Or, for less constrained real excitement... since after Tulsa, OK,
Huntsville, AL is rated second on the list of US cities as
ordered by number of direct tornado strikes, you can *enjoy* the excitement
of "air raid" sirens going off, at various times
of the day and night, whenever lines of severe weather ["severe" in *tornado
alley* means heavy thunderstorms, rain, hail
and likely tornados] approach, which happens often in the early spring and
late fall. A handful of good folks were killed
over in Carbon Hill, AL just a few miles from Huntsville, only last week.

For *quiet* fun, you can go down to the Tennesse River and catch some really
big bass, hunt for Indian arrowheads
along the shore, or in the fall you can watch the local farmers pick cotton

out of their red colored cotton fields along
the river side using their huge mobile cotton picking machines.

Rocket Scientists and Cotton Farmers, that's Huntsville, AL. Me? I liked
living in Huntsville. Huntsville, AL which
is known as "Rocket City, USA" and as Wes noted on his short visit... they
do serve grits and hominy if you want em.

But... I like it better here in East Central Florida where, since I'm
located just a few miles south of The Cape out here
on the barrier island, I can watch the *big* rockets arch up over the palm
trees from my own backyard as they surge
upwards into orbit on their firey plumes. In fact I did so this evening
while toasting the Endeavour shuttle launch with
a glass of wine while sitting out by the pool under the full moon.

--
Peter K1PO
Indialantic By-the-Sea, FL

3139. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 06:52:56 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <5A_D9.766$pc.152850@news.iquest.net>
Source record: 130678

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:8729-3DE0317B-73@storefull-2313.public.lawson.webtv.net...
>
> Ability to "roll your own" has little to do with avoiding interference.
> Knowing the rules and how to comply needs demonstration for a license.
> You don`t need to know radio construction to be a good ham.
>
Solving problems and knowing when the problems happen is important
to being a good ham or anyone else who uses the shared EM spectrum.

It is basic to any owner/operator of a transmitter (when you don't have
a technical support staff) to be able to deal with the responsibilities of
potentially interfering with other people's activities. Being able to solder
coax to a connector is important, if the predominant technology for
connecting a transmitter to a feedline or antenna is purchased seperately
and mix/matched (or hopefully built) by the operator.

There currently is ALOT of EM irresponsibility (at least in my town of
Indianapolis), and from my view, my current interference source isn't
from the HROs, but from organizations like the power company. So, there
are even unintentional transmitters. You don't even need a box called a 'transmitter'
to be a poor EM citizen.

Those who own/operate/maintain/powerup/connect their own transmitters
(esp high power units) (FOR EXAMPLE) need to understand the ramifications
of using zipcord for transmission line on 10meters. It'd also be good if they
understand the effects of dissimilar compounds when using even a moderate
power transmitter perhaps compounding the problem with poor matching in
a feedline system. It'd even be nice if HROs who assemble
their systems from components (e.g. antennas, coax, transmitter/receiver)
understand what 'matching' really means, and not get paranoid about a
1:1 SWR when they forget (or ignorant about) other factors like antenna
radiation efficiency, and the ability to cause the antenna to actually absorb
the signal (rather than make a superficially desirable impedance match
at the transmitter) being important. A 1:1 SWR into a resistor wouldn't
be very good for long distance communication, and not all antennas
are created equal.

We cannot fix the world by making sure that all HROs can quickly put together
a trap or a wide dynamic range preamp for difficult situations. We also cannot
fix the world by forcing people to avoid eating every meal from McDonalds
or excessively smoking cigarettes either. Change and growth will happen if
there is more of a carrot (e.g. the simple Ham EE being made more interesting
and helpful, rather than being treated like a bastard stepchild by the
communicator class of users), rather than a stick (creating an exclusive

club for the purpose of discrimination.) The stick approach (REQUIRING code for qualification) had already existant for too long, but that problem is apparently at least partially being mitigated!!!

John

3140. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 08:58:34 UTC
From: amfowler@melbpc.org.au
Message-ID: <3de2944c.4900372@news.melbpc.org.au>
Source record: 130679

Roy Lewallen <w7el@eznec.com> wrote:

>Alan Fowler wrote:
>> . . .
>> Doesn't matter where you make the connection, the
>> current will head for the lowest impedance path (the outer
>> (Conducting) surface as fast and directly as it can.
> >. . .
>
>If the connection is to the inner surface, the shortest path to the
>outer surface is along the inside to the nearest opening, then out. This
>might be a short path or it might be long. If the path is long, it'll
>add substantial inductance and, in the case of a small loop, unnecessary
>loss.

All right I'll ask a silly question. "Why does the
current have to find an opening to get to the surface
instead of flowing directly through the thickness of
copper?"

Alan
>
>Roy Lewallen, W7EL

3141. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 08:59:31 UTC
From: amfowler@melbpc.org.au
Message-ID: <3de19150.4136272@news.melbpc.org.au>
Source record: 130680

aunwin@insightbb.com (Art Unwin KB9MZ) wrote:

>Roy Lewallen <w7el@eznec.com> wrote in message
news:<utpipddjra2ve3@corp.supernews.com>...
>> Alan Fowler wrote:
>> > . . .
>> > Doesn't matter where you make the connection, the
>> > current will head for the lowest impedance path (the outer
>> > (Conducting) surface as fast and directly as it can.
>> >. . .
>>
>> If the connection is to the inner surface, the shortest path to the
>> outer surface is along the inside to the nearest opening, then out. This
>> might be a short path or it might be long. If the path is long, it'll
>> add substantial inductance and, in the case of a small loop, unnecessary
>> loss.

Perhaps I didn't express myself clearly, for which I
apologise.

Suppose we are talking about a length of 16 gauge
1/2 in diam copper tubing which has been wound into a coil.

If the ends of the tube is open, it does not matter
if you connect the lead to the inner or the outer surface of
the tube.

If connected to the outer the current will flow
mostly on the outer surface and the current density across
the thickness of the wall will decrease roughly
logarithmically from the surface to a minimum value on the
inner surface of the tubing.

If connected to the inner surface the current path
will be towards the surface for a short distance, the
current distribution will be the same as the previous case.

The current does not go looking for a hole on the
tube to reach the outer surface.

Alan.
>>
>> Roy Lewallen, W7EL
>Roy
>What has the 'shortest' path got to do with it?
>Art

3142. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 10:35:36 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <uu1aro4n3nll24@corp.supernews.com>
Source record: 130681

If they did, we Southerners would have become extinct many generations back. They are simply a staple at breakfast time consisting of ground hominy corn, boiled slowly and when done covered with butter and well salt and peppered.

They are the only thing besides the war of Northern aggression that separate us from the Yankees.

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:arom8gssm2@sparta.btinternet.com...
> Boys, sorry to admit I don't know what grits are. But I got the sense of
the
> jokes which I found very funny.
>
> Do grits work the opposite way to Viagra ?
> ---
> Reg
>
>
>

3143. Re: Reflected power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 10:40:24 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <uu1b4pjbj89v01@corp.supernews.com>
Source record: 130682

He has to talk to us, he doesn't have any friends of his own.

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:arod5njdo1@venus.btinternet.com...
> Dear Richard Clark, are you unable to imagine the effect your
contributions
> to this newsgroup have on the opinions of other participants in these
mostly
> good-natured discussions ?
> ---
> Reg, G4FGQ
>
>
>

3144. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 11:12:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uu1d1b6i6rs40a@corp.supernews.com>
Source record: 130683

Any current attempting to penetrate into a conductor creates a field which, in turn, creates a current opposing the original field. The result is that the current decreases in an exponential manner from the surface downward. This is known as skin effect, and much more elaborate explanations can be found in any electromagnetics text. The net result is that at HF and higher, no appreciable current can flow through a good conductor of any reasonable thickness.

Roy Lewallen, W7EL

Alan Fowler wrote:
> All right I'll ask a silly question. "Why does the
> current have to find an opening to get to the surface
> instead of flowing directly through the thickness of
> copper?"
>
> Alan
>
>>Roy Lewallen, W7EL
>
>

3145. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 11:58:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uu1fm7o4kb6e6b@corp.supernews.com>
Source record: 130684

Alan Fowler wrote:
>
> Perhaps I didn't express myself clearly, for which I
> apologise.
>
> Suppose we are talking about a length of 16 gauge
> 1/2 in diam copper tubing which has been wound into a coil.
>
> If the ends of the tube is open, it does not matter
> if you connect the lead to the inner or the outer surface of
> the tube.

In practice that's true. In order to make a connection to the inside, you have to poke a wire inside the tube. Then you have a coaxial line inside the tube, which will support current flow on the inside. You'll end up with essentially the impedance of the short length of coax in series with the coil, since this is the path that the current on the inside will take to the outside. If you connect right at the end of the coil, the distance from inside to outside is short. But no significant current will flow on the inside beyond the connection.

> If connected to the outer the current will flow
> mostly on the outer surface and the current density across
> the thickness of the wall will decrease roughly
> logarithmically from the surface to a minimum value on the
> inner surface of the tubing.

No, the current density decreases exponentially with depth, not logarithmically. A logarithmic function changes very slowly, an exponential function very rapidly.

> If connected to the inner surface the current path
> will be towards the surface for a short distance, the
> current distribution will be the same as the previous case.

Any current on the inside or outside of the tube will decay very rapidly from the surface. I'm not familiar with tubing measurement, but _Reference Data for Radio Engineers_ says that sheet metal gauge usually refers to B&S, and 16 gauge is 0.051 inches thick. Let's use that for an example, and say that the tubing wall is that thick, and copper. At 10 MHz, the skin depth in copper is about 0.00082 inches, so the wall is 62 skin depths thick. A current density of one amp/m at one surface will be e^-62 = 1.2 X 10^-27 amps/m, or .000000000000000000000000012 amps/m at the other surface. No detectable current will get through.

But no appreciable current will flow on the inside anyway, unless you put another conductor inside the tube. I've spent a while trying to come up with a good intuitive explanation of why this is, but haven't found a way to do it without prompting additional questions which require additional detailed explanations. The answer lies in Maxwell's equations, particularly Ampere's law, but I'm not up to hitting that tar baby. If you simply want additional support for this, find any text or handbook that discusses waveguides, and notice the extreme attenuation of any wave traveling inside a waveguide much smaller than about a half wavelength across.

> The current does not go looking for a hole on the
> tube to reach the outer surface.

You can bet your coulombs it does. Good thing, too, or our coax, screen rooms, and shields would leak like sieves.

>
> Alan.

Roy Lewallen, W7EL

3146. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 12:17:32 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <ZdLQelCcNM49EAed@ifwtech.co.uk>
Source record: 130691

Reg Edwards wrote:
>Boys, sorry to admit I don't know what grits are.

Like Polycell, but less flavour.

>Do grits work the opposite way to Viagra ?

See above.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

3147. Re: Can a ham get busted for.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 12:31:02 UTC
From: Ham-in-a-can <I.B.Ondaily@on.the.air.con>
Message-ID: <arqgpvjvc1@news.chatlink.com>
Source record: 130685

Other documented violations one can be busted for (according to news from ARRL):

1. Alternator whine on your signal.
2. Talking too long on 146.520 MHz (even though this was allegedly amended to be a violation of a "gentlemen's agreement" and enforceable)
3. Not ID in CW when using Digital (even though this reprimand was later rescinded due to rewritten Rules & Regs)
.....God only knows what else.

Even though Hollingsworth has do good in cleaning up some of the sewer rats of Ham radio, he does get carried away, just like Elliott Ness and the Untouchables.

"'Doc" <w5lz@cwis.net> wrote in message news:3DCACE5D.52313486@cwis.net...
>
>
> nospam,
> Yes.
> 'Doc

3148. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 13:32:33 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211240532.4a6311b@posting.google.com>
Source record: 130686

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<arpenn$1pl$1@sparta.btinternet.com>...
> > Huntsville, AL is a
> > wonderful town with more Ph.D's per square mile than any other place in
> > America.
> ==========
> America ? Don't you mean the USA ?
>
> God, what a boring academic place it must be, nobody ever heard of a hammer
> and nails. ;o)
> ---
> Reg

Reg when Von Braun came to work there he brought with him a unused doodle bug !
It is on show there in all its so called glory.
Art

3149. Re: Info on RX noise bridge from Ham Radio Magazine

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 13:36:37 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3de0d5e4$0$188$ba620e4c@news.skynet.be>
Source record: 130687

I do. But remove REMOVE from my e-mail. Thanks. 73 de ON5MJ - Jacques.

3150. Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 13:45:04 UTC
From: cprstn54zz@att.net
Message-ID: <3de0d733.4377765@news-server.optonline.net>
Source record: 130688

I have seen a few references to using twisted-pair network cable as a
lightweight, low-loss feedline for portable use. However, I have
found nothing as to impedance, loss and proper usage.

Can someone please point me to a source?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

3151. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 13:50:07 UTC
From: richardharrison@webtv.net
Message-ID: <3277-3DE0D90F-238@storefull-2315.public.lawson.webtv.net>
Source record: 130689

John Dyson wrote:
"Those who own / operate / maintain / power up / connect their own transmitters (esp high power units) (FOR EXAMPLE) need to understand the ramifications of using zipcord for transmission line on 10 meters."

Interference from radio radio use is all that regulation need address including hazard to people and property resulting from radio operation.

I don`t care if an operator wastes some 10-meter energy in zipcord if it doesn`t raise my insurance rates. If he weren`t wasting power in a zipcord he might be out on the steets wasting more energy as fuel.

The best jockey may not be a veterinarian. The best driver may not be a mechanic. And, the best radio operator may not be a technician.

In the days when little was known of the utilization of mysterious electrical forces, it made some sense for regulation to be restrictive. That era is long past.

Best regards, Richard Harrison, KB5WZI

3152. Re: Can a ham get busted for.....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 14:04:30 UTC
From: richardharrison@webtv.net
Message-ID: <3277-3DE0DC6E-241@storefull-2315.public.lawson.webtv.net>
Source record: 130690

Ham-in-a-can wrote:
"2. Talking too long on 146.520 MHz (even though this was allegedly
amended to be a violation of a "gentleman`s agreement" and enforceable"

The USA is a country of written law. The FCC thus can only enforce
explicit rules.

Best regards, Richard Harrison, KB5WZI

3153. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 14:49:55 UTC
From: cprstn54zz@att.net
Message-ID: <3de0e500.7911609@news-server.optonline.net>
Source record: 130692

On Mon, 25 Nov 2002 09:39:17 -0500, "N4LQ" <N4LQ@igLou.com> wrote:
>Twisted pair feeder is described in my 1937 ARRL Antenna Handbook. Impedance
>is about 75 ohms, affected by moisture and has more loss than coax. It
>became the standard for telephones and door bells.

The twisted-pair wiring used in networking is supposed to be
significantly different from that used for doorbells.

When I built my house in 1986, I ran three twisted-pair shielded
communications wiring all over, mainly for 9600 baud peripheral access
via RS-232. I was thrilled in 1997 to learn that networks coukd be
run on twisted pair. I was less thrilled to learn that the twisted
pair used for networking was nothing like my twisted pair.
Apparently, the new stuff can handle 100 MHz because that is what the
networks run at. Unless attenuation is very high, HF should be no
problem at all.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

3154. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 15:10:00 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE0EBC8.A481D65@ieee.org>
Source record: 130693

"Peter O. Brackett" wrote:
> ... I can watch the *big* rockets arch up over the palm
> trees from my own backyard as they surge
> upwards into orbit on their firey plumes. In fact I did so this evening
> while toasting the Endeavour shuttle launch with
> a glass of wine while sitting out by the pool under the full moon.

Hey Peter, that must have been without your glasses.
The full moon happened on Wednesday. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3155. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 15:22:37 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211240722.60dad666@posting.google.com>
Source record: 130694

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<armblkeul2@helle.btinternet.com>...
> > To clarify skin effect, I suggest the 1955 edition of Terman, page 21.
> >
> > To clarify transmission lines, I suggest page 82 of the 1955 Terman
> > opus.
> >
> > To clarify matching with single and multiple stubs, I suggest page 108
> > of the 1955 Terman opus.
> ================================
>
> Suppose Art hasn't got Terman ! Then what does he do ? ;o) ;o)
> ---
> Reg

Richard knows I also have a collection of books including
different editions of Terman but it is not as extensive as his.
So I am pleased when he refers to a writing that I do not have
a copy of. One thing you have to notice about Richard, he does
not quote Shakespeare to get attention nor does he resort to
harsh words against others.
Art
Art

3156. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 15:53:40 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <arqsm3gkv1@knossos.btinternet.com>
Source record: 130695

```
.
> I still have a Cockney accent, do you think it will show
> if I only use code?
> Cheers
> Art
========================

No, it won't show. But avoid rhyming slang at all costs. ;o)
---
Reg
```

3157. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 16:34:18 UTC
From: tdonaly@aol.com
Message-ID: <20021124113418.27419.00000044@mb-ct.aol.com>
Source record: 130696

Art wrote,
>
>Richard knows I also have a collection of books including
>different editions of Terman but it is not as extensive as his.
>So I am pleased when he refers to a writing that I do not have
>a copy of. One thing you have to notice about Richard, he does
>not quote Shakespeare to get attention nor does he resort to
>harsh words against others.
>Art
>Art
>
Just don't make any disparaging remarks about his
ornithological watt meter.

Tom Donaly, KA6RUH

3158. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 16:37:26 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211240837.1d6db52c@posting.google.com>
Source record: 130697

Roy Lewallen <w7el@eznec.com> wrote in message news:<uu1fm7o4kb6e6b@corp.supernews.com>...

>
> > The current does not go looking for a hole on the
> > tube to reach the outer surface.
>
> You can bet your coulombs it does. Good thing, too, or our coax, screen
> rooms, and shields would leak like sieves.
>
> >
> > Alan.
>
> Roy Lewallen, W7EL

Roy I still cannot go along with your aproach (don't want to appear insolent)You dwell on 'distance ' and 'holes' instead of impedance paths.
A 'hole' encumberes the flow or escape of radiation when its size is small
compared to the wave length, minute holes in coax is thus useful(OK) for high frequency but certainly not for VHF and above where it can 'leak like a sieve'.
On the other hand a wire carrying RF WILL allow entrance thru a small hole
because it is now the best impedance path (I see this as a suppression of radiation in a confined space) If you didn't use the term 'distance"
in the first place all this discussion would be moot.
Another point I wish to make is that the 'skin depth'term is being misused.
I often use thin aluminum foil for antennas used for top band, this may only be the 'skin depth' thickness suggesting that it cannot carry all that is imposed on it, which is not true. Skin depth has a relavence to the THICKNESS of the material being used and thus is not a 'constant'.
Regards
Art

3159. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 16:40:14 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <eQDhPXvkvPX0hgrco897mO88m6we@4ax.com>
Source record: 130698

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote:

>Boys, sorry to admit I don't know what grits are. But I got the sense of the
>jokes which I found very funny.
>
>Do grits work the opposite way to Viagra ?
>---
>Reg
>
>

Grits are coarsly-ground hominy.

Bob
k5qwg

3160. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 17:33:24 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <H7adncs0pJ5mkXygXTWcpg@comcast.com>
Source record: 130699

Twisted pair telephone wire tends to have an impedance of 100 - 120 ohms at HF. I have use it at 1.08 MHz and 1.544 MHz. Don't remember the loss, but a stab in the dark would be 30 db/mile at those frequencies.

Tam/WB2TT
"Ken" <cprstn54zz@att.net> wrote in message
news:3de0d733.4377765@news-server.optonline.net...
> I have seen a few references to using twisted-pair network cable as a
> lightweight, low-loss feedline for portable use. However, I have
> found nothing as to impedance, loss and proper usage.
>
> Can someone please point me to a source?
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

3161. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 17:59:22 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <3de11776_2@news1.prserv.net>
Source record: 130700

I briefly talked with the Alpha-Delta about using one of their half-slopers on my current 40' tower, were I considered placing it at about the 30' level (so as not to interfere with the quad). They said there was not enough counterpoise above it, since the quad presenting much less top loading than a typical tribander.

Since they talked themselves out of a sale, I assume they had good reason for what they said about the need for some amount of loading above the half-sloper feed point. Whatever one might think about purchasing a half-sloper (as opposed to simply creating your own), the AD people do sell a considerable number of these and need to deal with many users. Their experience appears to be that substantial loading (whatever that might mean in quantative terms) above the feed point is needed in order to produce predictable loading.

Hence my question about my soon-to-be new tower. I would have more tower above the feed point than when I asked AD about my old tower.

Bill
W2WO

3162. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 18:21:25 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <arr5b2$p3o$1@slb9.atl.mindspring.net>
Source record: 130701

Cecil:

[snip]
> Hey Peter, that must have been without your glasses.
> The full moon happened on Wednesday. :-)
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

Oh! Musta been a *reflection* then! Heh, heh...

--
Peter K1PO
Indialantic By-the-Sea, FL

3163. Re: Looking for 6m half wave (no radials) design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 18:24:01 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211241024.12993509@posting.google.com>
Source record: 130702

wq1o@attbi.com (Frank Olaughlin) wrote in message
news:<45d741b3.0211231616.3629feba@posting.google.com>...
> Hello to all.
> I am looking for a vertical 6m design for fm work. The application
> wi I'm looking to see if anyone has any info about how this
> antenna is constructed(is there also a cap./or coil involved?) or if
> they have any other 6m gamma loop fed vertical designs to share. I'm
> also particularly interested in the gamma loop feed and how its
> circum/spacing is determined.

I have one for 10 and 6 meters. There are detailed plans for that antenna in the "Orange paparback" Bill Orr antenna handbook. But there is not much to it.
The loop on my 10m version is about 9 inches dia. The cap used is about 50 pf. These are made from coax. "Yes, I think qualifies as a stub". So it's easy to caculate for other bands. IE: 6m, use about a 4-5 inch loop. Probably about a 15-25 pf coax cap. You might want to look at the cushcraft web site. They have PDF files of the manuals for their ringos. You can use them for ideas also. These antennas are easier to build and set up/tune than they look. I've never had a problem getting a good match. And the antennas work pretty well. MK

3164. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 18:25:07 UTC
From: richardharrison@webtv.net
Message-ID: <3012-3DE11983-699@storefull-2317.public.lawson.webtv.net>
Source record: 130705

Art, KB9MZ wrote:
"Richard knows I have a collection of books---."

Thank you for kind words.

The smaller the hole an r-f carrying conductor passes through, the more opposition it presents to the r-f. Current induced in the surface surrounding the hole opposes the r-f according to Lenz. The entrance/exit hole needs to be large to keep opposition small. Remember the chassis holes for I-F cans? Also, use the same hole for entrance and exit. Separate holes double the opposition as each opposes the same current coming and going. Also, coming and going currents in close proximity tend to neutralize each other reducing opposition to current wired through a shield. R-F tends to take the path of least inductance when the resistance is low. The coming and going paths need to be kept close together.

Hole size and placement are not simple parameters in many cases. But, Roy has the skin effect information right.

Best regards, Richard Harrison, KB5WZI

3165. Re: Looking for 6m half wave (no radials) design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 18:31:14 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211241031.24c15370@posting.google.com>
Source record: 130703

wq1o@attbi.com (Frank Olaughlin) wrote in message

Also...better mention that the coax stub cap is open on the end. No connection between shield and center conductor at the end. I seal it with a dab of silicone. MK

3166. re:gain without pain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 18:31:29 UTC
From: ka8uze <ka8uze@prodiy.net>
Message-ID: <5W8E9.50$SO4.1761429@newssvr17.news.prodigy.com>
Source record: 130710

dale there is only L1 and L2 in article, june 2001
3 element delta , page 44 ,paul , ka8uze

3167. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 18:43:07 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ir62uu41850rgget800egbfi2lmguilkjn@4ax.com>
Source record: 130704

On Sun, 24 Nov 2002 02:49:44 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>> Huntsville, AL is a
>> wonderful town with more Ph.D's per square mile than any other place in
>> America.
>==============================
>America ? Don't you mean the USA ?
>
Little island mentality. Why does it have to be USA when America is
called? Do you naturally assume that America means the United States
alone? A little thought would reveal that Peter could also have
easily said:
>>more Ph.D's per square mile than any other place in the US of A
>>more Ph.D's per square mile than any other place in the United States of America
>>more Ph.D's per square mile than any other place in the South America
>>more Ph.D's per square mile than any other place in Central America
>>more Ph.D's per square mile than any other place in North America
>>more Ph.D's per square mile than any other place in the Americas
and all or any could be equally true and not just solely true in the
"USA."

You should be more respectful towards the wonderful countries we share
with this hemisphere. :-(

73's
Richard Clark, KB7QHC

3168. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 19:06:57 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <f482uucmehcqtdo7c7cc141e80b9snkj8b@4ax.com>
Source record: 130706

On Sun, 24 Nov 2002 14:49:55 GMT, cprstn54zz@att.net (Ken) wrote:

>On Mon, 25 Nov 2002 09:39:17 -0500, "N4LQ" <N4LQ@igLou.com> wrote:
>>Twisted pair feeder is described in my 1937 ARRL Antenna Handbook. Impedance
>>is about 75 ohms, affected by moisture and has more loss than coax. It
>>became the standard for telephones and door bells.
>
>The twisted-pair wiring used in networking is supposed to be
>significantly different from that used for doorbells.
>
>When I built my house in 1986, I ran three twisted-pair shielded
>communications wiring all over, mainly for 9600 baud peripheral access
>via RS-232. I was thrilled in 1997 to learn that networks coukd be
>run on twisted pair. I was less thrilled to learn that the twisted
>pair used for networking was nothing like my twisted pair.
>Apparently, the new stuff can handle 100 MHz because that is what the
>networks run at. Unless attenuation is very high, HF should be no
>problem at all.
>
>Ken KC2JDY
>

Hi Ken,

You have to be careful in that not all characteristics are fungible between RF and digital. For one, a digital signal is 1's and 0's and as long as there is sufficient S+N/N ratio (roughly 12dB or better), a lossy cable is not that much a problem. The problem for digital (and not necessarily RF, or at least not at this scale) is dispersion (phase integrity). That is the number one killer. Even then, some years ago I noticed that in-house routers rarely could manage more than 30M in distance from a hub to a terminal.

When it comes to assessing loss, you need only look at the gauge of the smallest wire. How does it compare to good RF Power transmission line?

73's
Richard Clark, KB7QHC

3169. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 19:07:50 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <5s9E9.1051$e%.132610@news20.bellglobal.com>
Source record: 130707

A related topic:

I remember reading somewhere that shielding is not perfectly effective.

By way of an example, if you had a random wire antenna (with perhaps 1kw for example) installed only a few inches away from a thin alumuinum sheet (perhaps 0.125" thick), the RF will excite currents in the aluminum sheet and those currents will run sufficiently deep that RF will "leak through" to some degree to the other side. I would assume that, for the random wire, the current node (0.25 lambda antenna length) would be worse than the voltage node (0.5 lambda). I saw a table that provided attenuation factors (dB) for various thicknesses of various metals at various frequencies.

Do I understand this correctly ?

3170. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 19:17:10 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <QA9E9.1054$e%.135273@news20.bellglobal.com>
Source record: 130708

OT...

"Richard Clark"
> You should be more respectful towards the wonderful
> countries we share with this hemisphere. :-(

I assume that you've heard about the "moron" controversy. Pres. Bush was speaking and he suggested that other countries should spend more on defense. A Canadian official was overheard apparently saying "What a moron..."

It's all a big misunderstanding. The Canadian official was simply having some trouble clearly hearing the president and she actually said, "What ? Eh ? '...more on ..." ?

;-)

(I have to credit one of my coworkers for that one.)

3171. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 19:39:26 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <1592uuc2502iv36m1v4hor9d9i7koer8lj@4ax.com>
Source record: 130709

On Sun, 24 Nov 2002 12:59:22 -0500, "Bill Ogden"
<wogden@attglobal.net> wrote:

>I briefly talked with the Alpha-Delta about using one of their half-slopers
>on my current 40' tower, were I considered placing it at about the 30' level
>(so as not to interfere with the quad). They said there was not enough
>counterpoise above it, since the quad presenting much less top loading than
>a typical tribander.
>
>Since they talked themselves out of a sale, I assume they had good reason
>for what they said about the need for some amount of loading above the
>half-sloper feed point. Whatever one might think about purchasing a
>half-sloper (as opposed to simply creating your own), the AD people do sell
>a considerable number of these and need to deal with many users. Their
>experience appears to be that substantial loading (whatever that might mean
>in quantative terms) above the feed point is needed in order to produce
>predictable loading.
>
>Hence my question about my soon-to-be new tower. I would have more tower
>above the feed point than when I asked AD about my old tower.
>
>Bill
>W2WO
>

Hi Bill,

The tower and quad present an opportunistic radiator for some
characteristic frequency. I think we can all agree it is unlikely to
fall into a ham band. Outside of that frequency, and with sights set
on 80/160, we must resort to matching - enter the half-sloper pressed
into out-of-band service.

The discussion of application at 80/160 must then turn back to that
opportunistic radiator as we ask the question: is it tall enough? The
tower height gives some clue. A 50' tower would be quarterwave at
60M. 80M would seem near, and 160M a long shot. Consider how small
radiators are made longer with top-hats. The question the AD people
had with what you were mounting, was to assess the quality of top-hat
action.

In their estimation, your quad does not have the same coverage and
continuity as does a yagi with boom grounded elements (which is
probably at the top of their assess). This answers the significance
of counterpoise/mass. However, given just an empty boom swinging in
the wind, that is enough to boost the tower's effective height into

80M class as long as you have some radials. At that point I would simply abandon the half-sloper and build two gamma matches into the tower. I can see several advantages: less feedline, and an optimal match at the antenna (rather than through a swinging dipole). If you could insulate the base; then you would also have a half-wave 40M candidate.

73's
Richard Clark, KB7QHC

3172. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 20:02:33 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <k2b2uugg56mpukunaj0nds44dkbitgkd2s@4ax.com>
Source record: 130711

On Sun, 24 Nov 2002 14:07:50 -0500, "J. Harvey"
<JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote:

>A related topic:
>
>I remember reading somewhere that shielding is not perfectly effective.
>
>By way of an example, if you had a random wire antenna (with perhaps 1kw for
>example) installed only a few inches away from a thin alumuinum sheet
>(perhaps 0.125" thick), the RF will excite currents in the aluminum sheet
>and those currents will run sufficiently deep that RF will "leak through" to
>some degree to the other side. I would assume that, for the random wire,
>the current node (0.25 lambda antenna length) would be worse than the
>voltage node (0.5 lambda). I saw a table that provided attenuation factors
>(dB) for various thicknesses of various metals at various frequencies.
>
>Do I understand this correctly ?
>

Hi Jeff,

Richard has undoubtedly published those notes here at one time.
However, the observation:
>and those currents will run sufficiently deep that RF will "leak through" to
>some degree to the other side.
has been answered by Roy out 20 odd places. As you can appreciate we
do not live in a perfect world.... :-(

As for:
>I remember reading somewhere that shielding is not perfectly effective.
again a perfect world evades our lot.

Sometimes perfect is relative to the swing of the needle on a Simpson
260. Sometimes perfect is relative to the swing of the galvonometer
shadow.

No one is going to measure leakage alongside the cable with a Bird
Wattmeter. The cable is perfectly shielded - once again skin effect
proves out. Anyone is going to hear the leakage through the cable
with a handheld SW reciever. The cable leaks like a sieve and
demolishes the myth about skin effect.

The practical side of this is that if there were an announcement that
"Perfect" Transmission Line was available in your favorite style at
only a nickel a foot more - we would wait for it to show up on spool
ends in the telephone company repair yard.

73's
Richard Clark, KB7QHC

3173. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 20:08:09 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <CdaE9.781$pc.155640@news.iquest.net>
Source record: 130712

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:3277-3DE0D90F-238@storefull-2315.public.lawson.webtv.net...
> John Dyson wrote:
> "Those who own / operate / maintain / power up / connect their own
> transmitters (esp high power units) (FOR EXAMPLE) need to understand the
> ramifications of using zipcord for transmission line on 10 meters."
>
> Interference from radio radio use is all that regulation need address
> including hazard to people and property resulting from radio operation.
>
> I don`t care if an operator wastes some 10-meter energy in zipcord if it
> doesn`t raise my insurance rates. If he weren`t wasting power in a
> zipcord he might be out on the steets wasting more energy as fuel.
>
Are you sure that you understand the issues of more effectively matching
and/or coupling to a junction of dissimilar conductive materials? This is not
just an issue of energy waste, but also of creation of spurious signals. The
problem is less trouble at lower powers, but I suggest that the problems are
more readily apparent at high power levels.

I don't advocate taking away access to 20-50W transmitters for the non-technical
communicator class of HROs. The problems caused by these devices are
often easily solved by ad-hoc tips and techniques.

Sure, there are issues of inefficient transmission (and leakage of RF into
neighboring apartments), but those are only the first order problems. Those
people ignoring these issues (or simply unknowledgeable) is one powerful
reason why ham radio needs an excellent technical education program.

John

3174. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 20:22:18 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <0cc2uucef3ojr3juhlv0esfq52use2fvi5@4ax.com>
Source record: 130713

On Sun, 24 Nov 2002 14:17:10 -0500, "J. Harvey"
<JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote:

>OT...
>
>"Richard Clark"
>> You should be more respectful towards the wonderful
>> countries we share with this hemisphere. :-(
>
>I assume that you've heard about the "moron" controversy. Pres. Bush was
>speaking and he suggested that other countries should spend more on defense.
>A Canadian official was overheard apparently saying "What a moron..."
>
>It's all a big misunderstanding. The Canadian official was simply having
>some trouble clearly hearing the president and she actually said, "What ?
>Eh ? '...more on ..." ?
...D'Fenï¿½ï¿½?
>
>
>;-)
>
>
>(I have to credit one of my coworkers for that one.)
>

Hi Jeff,

When it comes to political embarrassment to America; you have the same
luck as North Korea - no oil.
[vs lbh qb unir bvy, cyrnfr qba'g nqzvg vg urer!]

73's
Richard Clark, KB7QHC

3175. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 20:57:25 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0211241257.770c62fe@posting.google.com>
Source record: 130714

Hi,
Thanks once again. I am looking for mobile freqency like
1800/2400MHz. Its should be basically used in cell phones, LAN cards
etc. I got some couple of designs. Anyhow i need ur valuable
suggestions.

Thanks in advance.
Richard Clark <kb7qhc@attbi.com> wrote in message
news:<tppvtu8vdn0jei5bqrjd640oqeh0mv15aa@4ax.com>...
> On 23 Nov 2002 10:27:38 -0800, anandnavaneeth@hotmail.com (anand)
> wrote:
>
> >Hi guys,
> > Thanks for the reply. The hardest part i am facing is to make
> >it work on dual frequency with similar behaviour as the dominant mode.
> >I tried couple of things like placing another slot inside a slot.
> >Thats kindaworking but not meeting the specifications. I need your
> >expertise .
> >
> >Thanks in advance.
> >
> Hi Anad,
>
> A good beginning. What are the two frequencies and describe the
> Specification you are trying to meet.
>
> 73's
> Richard Clark, KB7QHC

3176. Wtb:

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 21:55:33 UTC
From: Roger Peterson <kc8qr@neo.rr.com>
Message-ID: <pVbE9.7874$oc1.822528@twister.neo.rr.com>
Source record: 130715

Need 80/75-15 meter mobile antennas along wiht the foldover mast. I will also consider the hamsticks also. 80/75-10 meters. Conatct me at kc8qr@neo.rr.com or leave messeage here. Tnx Kc8qr Pete

3177. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 22:36:37 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <QvcE9.1050$IQ5.178638@news20.bellglobal.com>
Source record: 130716

"Richard Clark"
> No one is going to measure leakage alongside the cable
> with a Bird Wattmeter. The cable is perfectly shielded -
> once again skin effect proves out. Anyone is going to
> hear the leakage through the cable with a handheld
> SW reciever. The cable leaks like a sieve and
> demolishes the myth about skin effect.

(Normal) coax cable is a bad example because the shield is rated at 9X%
coverage.

The particular example I mentioned is a genuine question to anyone that
might have hands-on experience or applicable theory.

1kw into a random wire antenna. Bottom of the wire is mere inches away from
an aluminum panel. Directly behind the panel are low-level signal wires.
Is it surprising that the outside antenna might couple EMI onto the inside
wires even with the aluminum sheet between ?

Curiously yours,
Jeff

3178. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 23:10:00 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <arrm84$g2b$1@slb6.atl.mindspring.net>
Source record: 130717

Tom:

[snip]
> Just don't make any disparaging remarks about his
> ornithological watt meter.
>
> Tom Donaly, KA6RUH
[snip]

Wow... do they still make those? Where can I buy one?

It's analog is it not?

I hate those new "digitalogical" watt meters.

--
Peter K1PO
Indialantic By-the-Sea, FL

3179. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 23:15:20 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <arrmqqujv1@slb5.atl.mindspring.net>
Source record: 130718

Roy:

[snip]
> inside will take to the outside. If you connect right at the end of the
> coil, the distance from inside to outside is short. But no significant
> current will flow on the inside beyond the connection.
:
:
:
> skin depths thick. A current density of one amp/m at one surface will be
> e^-62 = 1.2 X 10^-27 amps/m, or .00000000000000000000000000012 amps/m at
> the other surface. No detectable current will get through.
[snip]

The "Tempest" guys, they who wrote up NACSIM 5100 might not agree!

--
Peter K1PO
Indialantic By-the-Sea, FL

3180. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-24 23:34:04 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <i8o2uu0tq43rsqk9jojh1f8qpcbqhcvdca@4ax.com>
Source record: 130569

On 24 Nov 2002 12:57:25 -0800, anandnavaneeth@hotmail.com (anand)
wrote:

>Hi,
> Thanks once again. I am looking for mobile freqency like
>1800/2400MHz. Its should be basically used in cell phones, LAN cards
>etc. I got some couple of designs. Anyhow i need ur valuable
>suggestions.
>
Hi Anad,

So we are designing a coplanar patch antenna for 1800/2400 MHz with
similar behavior (by that I presume you mean its radiation pattern and
load).

As for the "I tried couple of things like placing another slot inside
a slot" is difficult without an image. Please post an URL (do not
send to this forum) for a graphic of your design(s).

You haven't touched on what makes it interesting, nor have you
discussed what you have read.

73's
Richard Clark, KB7QHC

3181. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 00:03:18 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <qlo2uu4k5va0lbqmvj2vbclp499i29rdco@4ax.com>
Source record: 130570

On Sun, 24 Nov 2002 17:36:37 -0500, "J. Harvey"
<JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote:

>
>1kw into a random wire antenna. Bottom of the wire is mere inches away from
>an aluminum panel. Directly behind the panel are low-level signal wires.
>Is it surprising that the outside antenna might couple EMI onto the inside
>wires even with the aluminum sheet between ?
>
>Curiously yours,
>Jeff
>

Hi Jeff,

If it were only that simple. There are very, very, very few enclosed systems at work in the world today. Not even submarines. But if you were to simply place a wire mesh (not even solid, welded seam metal) around the object of interest, it would undoubtedly go fairly undisturbed through the current punch (let's cut to the chase with a mere KW) of a lightning bolt.

There are still ways into the enclosure because in real life there are real exits from the enclosure. And sure as there's little green apples, one of those leads contributes to shield failure. All it takes is making the wrong guess as to where ground is (almost like the Wheel of Fortune for this board).

Now, if you want to test an extreme, consider the HP608 line of Sig Gen.s. At -127dBm, its below cutoff waveguide attenuator (one of the best attenuators designed) might suffer more stray leakage at the attenuator's input than is lost through attenuation to the measuring device. In this case, the through the air source-to-detector loss was less than through the attenuator.

When you think about it in those terms, and when you consider that these systems do not employ shabby standards, and when you consider we are speaking about signal separations of 134dB over the stretch of a lab bench (1 or 2 meters); then practical shielding begins to show some scope.

73's
Richard Clark, KB7QHC

3182. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 00:16:24 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <uu2qtoghnoeb7c@corp.supernews.com>
Source record: 130571

Re TEMPEST: The ratio between 1 kw and a minimum usable signal is
something like 190 db. Making the usual assumption, the ratio of 1 A to
1.2x10^-27 A is over 500 db!
TEMPEST problems arise when other than solid shields are used and
when connections radiate. Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:arrmqqujv1@slb5.atl.mindspring.net...
> Roy:
>
> [snip]
> > inside will take to the outside. If you connect right at the end of
the
> > coil, the distance from inside to outside is short. But no
significant
> > current will flow on the inside beyond the connection.
> :
> :
> :
> > skin depths thick. A current density of one amp/m at one surface
will be
> > e^-62 = 1.2 X 10^-27 amps/m, or .00000000000000000000000000012 amps/m
at
> > the other surface. No detectable current will get through.
> [snip]
>
> The "Tempest" guys, they who wrote up NACSIM 5100 might not agree!
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL
>
>

3183. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 00:22:32 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <73eE9.1097$IQ5.205445@news20.bellglobal.com>
Source record: 130572

"J. Harvey"
> > Is it surprising that the outside antenna might
> > couple EMI onto the inside wires even with
> > the aluminum sheet between ?

"Richard Clark" waxed poetically:
<snipped>

So - the nasty EMI is not going through the aluminum, but more likely going around. Thanks.

3184. Modeling a Wire Fence in EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 00:37:06 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <ucr2uus14gmkhkbtsefesnatj6drcahmgp@4ax.com>
Source record: 130573

Having read the conventional wisdom that wire fences should be
grounded and used as additional counterpoise for ground plane
antennas, I decided to try to model this in EZNEC 3.0. I have the
regular version, so I'm limited to 500 segments. How can I make a
simplified model of a 4 foot high by 100 foot long section of 2x4 inch
wire mesh that is around 400 segments or less?

Thanks for any suggestions.

--Mike

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3185. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 00:43:17 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211241643.3d423451@posting.google.com>
Source record: 130574

Roy Lewallen <w7el@eznec.com> wrote in message news:<uttao07nq8ugf6@corp.supernews.com>...
> Art Unwin KB9MZ wrote:
> >
> > Richard I believe the term 'skin effect' is being somewhat misused
> > and it could be by me ! Radiation will not occur because of the flow
> > of
> > current alone even tho the electrons do accelerate and deccellerate.
> > . . .
>
> A DC current produces no radiation for the reason you cite. However,
> when the current is alternating, the electrons are sho' 'nuff
> accellerating, and do produce a field. (Current is simply the rate of
> change of charge, so the rate of change of the current is the charge
> accelleration.) The field can be confined, as inside a coaxial
> transmission line or metal box, in which case radiation doesn't make it
> outside the line or box. But the presence of alternating current on a
> conductor does guarantee radiation.
>
> Roy Lewallen, W7EL

I think there is a misunderstanding here,I tried to use the term
'encumbered'
in what I was saying which is quite different from zero radiation. You
are suggesting that energy loss due to radiation is a constant no
matter how it is confined or what it is traveling thru,it is this
position of yours that I have trouble aligning with.
Art

3186. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 00:47:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uu2sp7b9lrs101@corp.supernews.com>
Source record: 130575

You're illustrating the difference between the philosopher or mathematician and the engineer. You see, a mathematician and an engineer were placed on one side of the field, with __________, the object of their sexual desires, on the other. (Use whatever name you think appropriate.) Each time they tried to approach __________, they were allowed to go only half the remaining distance.

The mathematician never got there. The engineer got close enough for practical purposes.

So let's see how "imperfect" 0.125" of aluminum would be for shielding. Shielding is more complex than just regarding skin depth, because you have to consider reflection of the wave at the interface between the metal and the air, the attenuation through the material, and if enough gets through to worry about, the reflection at the other side of the material. Being in the near field complicates matters, since the ratio of E to H fields aren't in a fixed ratio.

But we're taling about skin effect and skin depth here, so let's see what happens. A #12 wire spaced two inches away from a large plate will make a transmission line of 275 ohms characteristic impedance. If you're running 1 kW, the current on your wire will be sqrt(1000/275) =1.91 amps. Let's say 2 amps to make it easy. There'll be 2 amps flowing along the aluminum sheet under the wire. The concentration (current density) will be heaviest right under the wire, and decreasing to the sides.

The skin depth is greatest at the lowest frequency, so let's assume worst case of 1.8 MHz. At that frequency, the skin depth in aluminum is 0.0024 inches. So at 0.125", the plate is 52 skin depths thick. This means that the ratio of the current on the bottom to the current on the top is e^52 = 3.83 X 10^22 times. The current on the bottom side of the sheet would be 5.22 X 10^-23 amps, or 500 nano-pico amps. In terms of dB, the attenuation is 452 dB. Just how much is that? Well, if you put the total energy output of the sun into an attenuator that reduced it to the light output of a two-cell flashlight, the attenuator would have 280 dB of attenuation. We could attenuate the flashlight by that same factor again, then again by a factor of a billion, and still not have as much attenuation as that sheet of aluminum gives to that current at 1.8 MHz. Only a philosopher would conclude that some current gets through; no engineer would.

At HF and above, any reasonable thickness of sheet metal provides so much attenuation that invariably, much, much more signal gets around it and through small cracks, seams, and the like, that the attenuation of the metal itself can be considered perfect.

Roy Lewallen, W7EL

J. Harvey wrote:
> A related topic:
>
> I remember reading somewhere that shielding is not perfectly effective.
>
> By way of an example, if you had a random wire antenna (with perhaps
1kw for
> example) installed only a few inches away from a thin alumuinum sheet
> (perhaps 0.125" thick), the RF will excite currents in the aluminum sheet
> and those currents will run sufficiently deep that RF will "leak
through" to
> some degree to the other side. I would assume that, for the random wire,
> the current node (0.25 lambda antenna length) would be worse than the
> voltage node (0.5 lambda). I saw a table that provided attenuation
factors
> (dB) for various thicknesses of various metals at various frequencies.
>
> Do I understand this correctly ?
>
>

3187. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 01:07:05 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <VIeE9.1106$IQ5.214467@news20.bellglobal.com>
Source record: 130576

"Roy Lewallen"
> ...The engineer got close enough for practical
> purposes.

That's another type of 'skin effect'...

> So let's see how "imperfect" 0.125" of aluminum
> would be for shielding....
> ...the attenuation is 452 dB...

Thank you Roy. Very clear explanation. I appreciate the effort in typing
all that in and the knowledge behind it.

3188. Re: Modeling a Wire Fence in EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 01:14:51 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <rrt2uuoe056qrgjc72boksel9hafcff27v@4ax.com>
Source record: 130577

On Sun, 24 Nov 2002 16:37:06 -0800, Mike <scifiguy at starband dot
net> wrote:

>Having read the conventional wisdom that wire fences should be
>grounded and used as additional counterpoise for ground plane
>antennas, I decided to try to model this in EZNEC 3.0. I have the
>regular version, so I'm limited to 500 segments. How can I make a
>simplified model of a 4 foot high by 100 foot long section of 2x4 inch
>wire mesh that is around 400 segments or less?
>
>Thanks for any suggestions.
>
>--Mike

Hi Mike,

The quick answer is: you can't.

The working answer is: you approximate to a much coarser grain than
2x4 inch. Think of the grid, or the fence, in terms of wavelength and
try to make no two adjacent points in your mesh further apart than
1/10 or 1/20 wavelength.

If, after the application of that simple rule, you have excess
segments; then double up the mesh granularity near the feed point. As
fields are square and cube law creatures, proximity is a mighty
determinant.

73's
Richard Clark, KB7QHC

3189. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 01:41:47 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <rru2uukr3h6ave5qfric16g59s52n7magr@4ax.com>
Source record: 130578

On Sun, 24 Nov 2002 19:22:32 -0500, "J. Harvey"
<JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote:

>"J. Harvey"
>> > Is it surprising that the outside antenna might
>> > couple EMI onto the inside wires even with
>> > the aluminum sheet between ?
>
>"Richard Clark" waxed poetically:
><snipped>
>
>So - the nasty EMI is not going through the aluminum, but more likely going
>around. Thanks.
>
>

Hi Jeff,

You got it. In fact, the unwary are far more likely to inject EMI
into a quiet system while trying to measure the coupling.

In real-world totally sealed systems, there are ways in and out that
do not violate shielding. These are medical grade instrumentation
amplifiers and signal conditioners. They employ either flux linkage
or photon linkage to pass signal and power between the host and the
sealed system.

In a flux linkage, the shielding can be laminate with a common point
of conduction. In photon linkage, only a pinhole is required through
the shield. The impedance of this has been well described by Roy's
coverage of below cutoff attenuators. The hyper-extension of this is
that the cutoff is so high, only light frequencies can pass
un-attenuated.

However, having introduced the notion of this fine pin-hole, I must
report there is an emerging concept of Optics that allows for small
holes to gather up disproportionate amounts of photons. Part of a
class of Optical diodes I believe.

An analogy:
you are 10 feet from a dense wall that has a BB sized hole in it;
you aim a shot gun at the hole and fire;
a third of the BBs go through the hole.

It would seem Maxwell's Demon has found a moonlighting position with
shuffling photons through pin-hole screens.

73's
Richard Clark, KB7QHC

3190. Re: "Even Saddam Hussein gets Spam..."

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 02:24:14 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0211241824.3fb9386c@posting.google.com>
Source record: 130579

Dick Carroll <dixie@townsqr.com> wrote in message news:<ari1vc$6cb$0@208.206.142.73>...
> Richard Clark wrote:
> >
>
> > Something tells me neither of these patriots have the slightest
> > inkling about how to design an antenna capable of "igniting large
> > sections of the atmosphere" But just utter this phrase within 1000
> > feet of Congress and you will undoubtedly be stormed by 500 odd
> > wannabee patriots throwing money at you. And failing that, apply for
> > a Government Grant to build them for Saddam.
>
>
>
> Hmmm, ever consider that maybe this is one more way of relieving Saddam
> of some of his stash? We've heard the tales about Russian mafia selling
> him several loads of phony uranium for millions. So sell him an
> atmosphere igniter!

Indeed.

What's going on here? Dot antennas has become dot policy v2.0? . . ??

We need to get Burke, TITS & The Putz in here . .

w3rv

3191. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 02:46:15 UTC
From: richardharrison@webtv.net
Message-ID: <25089-3DE18EF7-324@storefull-2312.public.lawson.webtv.net>
Source record: 130581

J. Harvey wrote:
"I saw a table that provided attenuation factors (dB) for various thicknesses of metals at various frequencies."

R-F current density decreases exponentially with depth below the surface of a conductor. There is less current to take a bite out of as as depth increases just as there is less current to take a bite out of at a distance along a lossy transmission line.

Skin depth depends on conductor resistivity. There isn`t much difference in the resistivities of copper and aluminum. Skin depth in a particular metal varies inversely with the square root of the frequency. At 100x the frequency, you get 1/10 the depth of penetration.

At 1 KHz, skin depth in copper is 0.0826 in.
At 10 KHz, it`s 0.0260 in.
At 100 KHz, it`s 0.00826 in.
At 1 MHz, it`s 0.00260 in.

The pattern is established so you can extend the table above if you would like.

The current has dropped at one skin depth to 36.8% of the magnitude on the surface. This fraction is 1/e. The base of the natural log is "e". This attenuation is 1 neper. Look up the number of db this is in your conversion tables, if you are interested.

At 10 MHz, you can see that skin depth in copper is 0.000826 in. This is less than one thousandth of an inch. How thick is your aluminum or copper foil?

Best regards, Richard Harrison, KB5WZI

3192. Re: Modeling a Wire Fence in EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 03:14:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uu35ceoae8cv50@corp.supernews.com>
Source record: 130580

You didn't say what frequency, but it shouldn't be a problem at HF or MF. First, make a series of connected horizontal wires 4 feet above the ground. Each wire should be about 1/10 wavelength long and one segment, for a total length of 100 feet. For example, at 30 MHz, this would require about 30 wires and 30 segments. Then, at each wire junction, drop a vertical wire that doesn't quite reach the ground. I'd terminate them at, say, an inch or two above the ground. One segment for each wire is probably enough for the HF band, even though the segment length would be a bit over 1/10 wavelength at the very top of the HF range. So you've now got another 31 wires and 31 segments, for a total of 61. The trick now is to simulate the ground connection. Four feet is too low to model using MININEC type ground, which you could connect directly to. You've got to use High Accuracy ground, which you can't reliably connect to. I'd begin by running a series of wires along the bottoms of the vertical wires -- that is, in parallel with the top of the fence. Another 30 wires and 30 segments, for a total of 91. Then I'd do a test run and look at the currents on the fence wires. At places along the bottom wires where you have quite a bit of current, you might want to run a few horizontal wires outward from the bottom of the fence to simulate a better connection to ground. Or you could do this routinely every 8 feet or so, since this is probably how often the actual fence posts penetrate the ground.

There's no need to use anywhere near 500 segments for this, for HF or MF at least. A more complex model than I've described will give virtually the same results.

Roy Lewallen, W7EL

Mike wrote:
> Having read the conventional wisdom that wire fences should be
> grounded and used as additional counterpoise for ground plane
> antennas, I decided to try to model this in EZNEC 3.0. I have the
> regular version, so I'm limited to 500 segments. How can I make a
> simplified model of a 4 foot high by 100 foot long section of 2x4 inch
> wire mesh that is around 400 segments or less?
>
> Thanks for any suggestions.
>
> --Mike
>
>
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3193. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 03:21:32 UTC
From: richardharrison@webtv.net
Message-ID: <25088-3DE1973C-701@storefull-2312.public.lawson.webtv.net>
Source record: 130582

Richard Clark wrote:
"I must report there is an emerging concept of Optics that allows for small holes to gather up disproportionate amouts of photons."

Don`t be too discouraged at H-F. You can probably search on "screened room" and get some responses including radio attenuation provided by the screening under specified conditions. I copied a catalog design. It was a double screen, one copper insect screen on either side of the framing. This was about 50 years ago in an H-F transmitting plant with about a megawatt floating around. The screened room was nice and quiet. For our purposes the transmitters might as well not have been on the site.

Best regards, Richard Harrison, KB5WZI

3194. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 03:49:31 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <85hE9.453$l45.250009@news20.bellglobal.com>
Source record: 130583

"Richard Harrison"
> How thick is your aluminum... ?

About as thick as an aircraft fuselage skin panel.

3195. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 04:20:03 UTC
From: gaschafer@attbi.com
Message-ID: <3de1a4cb.14253433@netnews.attbi.com>
Source record: 130584

There is another factor that comes into play called "transfer
impedance". This is the voltage drop
generated on one side of a shield or tube, because of the resistance
over the length of the tube,
caused by the current flowing on the other side. This effect
particularly comes into play when
coax cable shields carry large currents from lightning strikes. Part
of the current ends up on the
inside of the cable and thus on the center conductor as well.

73
Gary K4FMX

On Sun, 24 Nov 2002 16:47:37 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>You're illustrating the difference between the philosopher or
>mathematician and the engineer. You see, a mathematician and an engineer
>were placed on one side of the field, with __________, the object of
>their sexual desires, on the other. (Use whatever name you think
>appropriate.) Each time they tried to approach __________, they were
>allowed to go only half the remaining distance.
>
>The mathematician never got there. The engineer got close enough for
>practical purposes.
>
>So let's see how "imperfect" 0.125" of aluminum would be for shielding.
>Shielding is more complex than just regarding skin depth, because you
>have to consider reflection of the wave at the interface between the
>metal and the air, the attenuation through the material, and if enough
>gets through to worry about, the reflection at the other side of the
>material. Being in the near field complicates matters, since the ratio
>of E to H fields aren't in a fixed ratio.
>
>But we're taling about skin effect and skin depth here, so let's see
>what happens. A #12 wire spaced two inches away from a large plate will
>make a transmission line of 275 ohms characteristic impedance. If you're
>running 1 kW, the current on your wire will be sqrt(1000/275) =1.91
>amps. Let's say 2 amps to make it easy. There'll be 2 amps flowing along
>the aluminum sheet under the wire. The concentration (current density)
>will be heaviest right under the wire, and decreasing to the sides.
>
>The skin depth is greatest at the lowest frequency, so let's assume
>worst case of 1.8 MHz. At that frequency, the skin depth in aluminum is
>0.0024 inches. So at 0.125", the plate is 52 skin depths thick. This

>means that the ratio of the current on the bottom to the current on the
>top is e^52 = 3.83 X 10^22 times. The current on the bottom side of the
>sheet would be 5.22 X 10^-23 amps, or 500 nano-pico amps. In terms of
>dB, the attenuation is 452 dB. Just how much is that? Well, if you put
>the total energy output of the sun into an attenuator that reduced it to
>the light output of a two-cell flashlight, the attenuator would have 280
>dB of attenuation. We could attenuate the flashlight by that same factor
>again, then again by a factor of a billion, and still not have as much
>attenuation as that sheet of aluminum gives to that current at 1.8 MHz.
>Only a philosopher would conclude that some current gets through; no
>engineer would.
>
>At HF and above, any reasonable thickness of sheet metal provides so
>much attenuation that invariably, much, much more signal gets around it
>and through small cracks, seams, and the like, that the attenuation of
>the metal itself can be considered perfect.
>
>Roy Lewallen, W7EL
>
>J. Harvey wrote:
> > A related topic:
> >
> > I remember reading somewhere that shielding is not perfectly effective.
> >
> > By way of an example, if you had a random wire antenna (with perhaps
>1kw for
> > example) installed only a few inches away from a thin alumuinum sheet
> > (perhaps 0.125" thick), the RF will excite currents in the aluminum sheet
> > and those currents will run sufficiently deep that RF will "leak
>through" to
> > some degree to the other side. I would assume that, for the random wire,
> > the current node (0.25 lambda antenna length) would be worse than the
> > voltage node (0.5 lambda). I saw a table that provided attenuation
>factors
> > (dB) for various thicknesses of various metals at various frequencies.
> >
> > Do I understand this correctly ?
> >
> >
>

3196. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 04:39:37 UTC
From: richardharrison@webtv.net
Message-ID: <19717-3DE1A989-722@storefull-2311.public.lawson.webtv.net>
Source record: 130586

John Dyson wrote:
"Are you sure that you understand the issue of more effectively matching and/or coupling to a junction of dissimilar conductive materials?"

A ham fortunately doesn`t need a full education on rectifying junctions to know that poor contacts can generate harmonics. This is the sort of "factoid" someone picks up from the "buzz". It is not covered in many texts so even an educated technician could be as ignorant as a less technically inclined operator. On the other hand, no prerequisites are needed to understand the simple fact that a diode can cause waveform distortion leading to the production of new frequencies. We have devices called diode mixers and diode detectors which are frequency changers. We could not reasonably expect a radio amateur to do a Fourier analysis and explain it on a license examination.

A problem caused by a rectifying junction is very rare and is not likely to be especially hazardous. Most problems may befall other hams as the bands are often harmonically related. We know that ham conversations are by law not of a serious nature except in an emergency when any type of radio could legally be substitiuted to serve the same function. The silly season has surely arrived in this discussion when such a way out proposition is raised.

Best regards, Richard Harrison, KB5WZI

3197. Re: Attenuation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 04:41:26 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3de1ae79_4@news1.prserv.net>
Source record: 130585

Set scanner in location. Form coax as necessary to plug male N into female BNC. Yes, they fit. Same dimensions, just no retaining mechanism. Use your imagination to produce a retainer. One way is to take a BNC plug apart, chuck the retaining sleeve in a lathe, and put 5/8"x24 threads on the outside of it. Install it on the BNC, and then thread the N onto it. It'll drive the purists nuts!

--
Crazy George
Remove NO and SPAM from return address
"J POP" <pop4214@yahoo.com> wrote in message
news:S32dnREINu-HnX2gXTWcpA@comcast.com...
> For scanner reception I have a Nevada discone D1300 with 60' of Andrew
> LDF4-50 heliax terminated with "N" connectors, the rear of my scanner
> accepts a female "BNC". I know that I need a adapter for it, in which I
know
> there would be some loss, but I wanted some input to see if it would be
> better to change the scanner internally to the "N" type to nullify the dB.
> loss......
>
>

3198. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 04:53:27 UTC
From: richardharrison@webtv.net
Message-ID: <19718-3DE1ACC7-302@storefull-2311.public.lawson.webtv.net>
Source record: 130588

J. Harvey wrote:
"How thick is your aluminum?"

It was ordinary copper window screen wire.

Best regards, Richard Harrison, KB5WZI

3199. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 05:09:16 UTC
From: richardharrison@webtv.net
Message-ID: <19717-3DE1B07C-723@storefull-2311.public.lawson.webtv.net>
Source record: 130587

Gary, K4FMX wrote:
"Part of the current ends up on the inside of the cable and thus on the center conductor as well."

Hundreds of radios. Thousands of lightning hits. All radios connected by coax to the antennas 24/7 for many decades. No antenna system lightning arrestors. Antennas all pockmarked from many lightning hits

No r-f input transistors ever burned by a lightning hit. I don`t believe any consequential transient ever made it through the coax.
Of course the antennas were folded monopoles solidly grounded to the tower top.

Best regards, Richard Harrison, KB5WZI

3200. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 05:39:40 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <pBiE9.808$pc.159108@news.iquest.net>
Source record: 130589

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:19717-3DE1A989-722@storefull-2311.public.lawson.webtv.net...
> John Dyson wrote:
> "Are you sure that you understand the issue of more effectively matching
> and/or coupling to a junction of dissimilar conductive materials?"
>
> A ham fortunately doesn`t need a full education on rectifying junctions
> to know that poor contacts can generate harmonics. This is the sort of
> "factoid" someone picks up from the "buzz
>
A broad, expansive, experience is useful to
get the big picture of both the 'ideal world' (head-in-the-sand) issues,
and also the real world situations. The attitude that 'if I ignore it, then
it won't happen to me' will sometimes work, and sometimes the most
stupid people will win the lottery also. However, I am an EE also with
several other discipline engineering and development expertise. It is frightening
that knowing that I don't know everything (I am never satisfied with my
theoretical and practical know-how), that the community 'common knowledge' of
EE (both practical and theoretical) seems very weak, and somewhat disappointing
EVEN in the ham world. Ham radio had been a hobby of special technical
expertise, but it seems that the 'expertise' is becoming more and more
a happy surprise.

Blowing off the issue of using zipcord for feedline with only one of the first order
problems shows that the respondent isn't prepared to deal with problems
that are deeper or less obvious than using an almost totally incorrect
feedline technology. Jumping on one possibility of flaws with the test
example, seems to show a lack of complete understanding (not a complete
lack of understanding, but a lack of broad understanding.) I don't think
that I would enumerate 'power loss' alone, but consider perhaps 5-6
problems with zip-cord, where power loss is a rather coarse grained
description. Assuming the defect is actually hidden in something that
superficially looks right, 'power loss' isn't really going to point to the
cause/effect of the problem. For example, ignoring radation or coupling
into nearby metal pieces and junctions (which has been a significant
source of EM interference, but certainly not 100% of the time), there
are at least several obvious 'power loss' mechanisms due to the use
of improper feedline -- but the 'power loss' is a resulting effect, and not
the real cause of the problems. 'Power loss' is akin to saying that
"it don't work" -- the reason for failure is more important than "it is broke."

All too often, there are questions in the antenna and homebrew newsgroups
(with sometimes equally wierd or misguided answers) that show a
certain technical cluelessness in the community. Eventually, a reasonably
correct answer will often be provided, but the 'odd' or 'slightly wierd'

answers happen too darned often. Please refer to some of the previous
discussed SWR issues, for example.

>
> A problem caused by a rectifying junction is very rare and is not likely
> to be especially hazardous. Most problems may befall other hams as the
> bands are often harmonically related. We know that ham conversations are
> by law not of a serious nature except in an emergency when any type of
> radio could legally be substitiuted to serve the same function. The
> silly season has surely arrived in this discussion when such a way out
> proposition is raised.
>
Again, you are the one who implied that the problem with
zipcord was energy loss. The context of my suggestion for technical
competence is with respect to high power operation. Actually, safety
could be an issue (of course), but more interesting issues appear
because of coupling into other materials and surroundings. Loss
because of dielectric, I2R, etc are pretty straightforward impairments
caused by zipcord. My zipcord example was given for an obvious
problem, but what happens if everything superficially looks okay?
It is okay to ask for help, but that kind of defeats the notion that
there is a responsible operator and maintainer of the equipment.
At least, you didn't complain about SWR!!!

It is fallacious to assume that just because you haven't heard about
a SPECIFIC problem occuring, that the issues aren't important. There
are MANY MANY issues that happen all of the time, but being able to
diagnose non-obvious problems helps the operator and maintainer
fulfill their responsibility. SOMETIMES, you even have to hunt around
your system (no matter the technology) to sniff out problems. This
applies to almost any kind of technological device, where part of
responsible operation (esp at high power) would include searching for
potential problems. You can't find all of them, but an SWR meter
isn't going to be sufficient (and it doesn't really measure what many
people think anyway!!!) :-).

It is exactly the head-in-the-sand attitudes that really beg for technical
standards. It has been too long that people have been spoiled by purchasing
their hobby for money, rather than really learning and understanding
their tools. Maybe it is time to rent a certified ham radio operator, so that
those who aren't competent to follow the rules and regulations WRT
technical standards will be able to comply. :-).

John

3201. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 06:27:58 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <uu3go6tcv7m325@corp.supernews.com>
Source record: 130590

John S. Dyson wrote:
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
news:19717-3DE1A989-722@storefull-2311.public.lawson.webtv.net...
>
>>John Dyson wrote:
>>"Are you sure that you understand the issue of more effectively matching
>>and/or coupling to a junction of dissimilar conductive materials?"
>>
>>A ham fortunately doesn`t need a full education on rectifying junctions
>>to know that poor contacts can generate harmonics. This is the sort of
>>"factoid" someone picks up from the "buzz
>>
>
> A broad, expansive, experience is useful to
> get the big picture of both the 'ideal world' (head-in-the-sand) issues,
> and also the real world situations. The attitude that 'if I ignore it, then
> it won't happen to me' will sometimes work, and sometimes the most
> stupid people will win the lottery also. However, I am an EE also with
> several other discipline engineering and development expertise. It is frightening
> that knowing that I don't know everything (I am never satisfied with my
> theoretical and practical know-how), that the community 'common knowledge' of
> EE (both practical and theoretical) seems very weak, and somewhat disappointing
> EVEN in the ham world. Ham radio had been a hobby of special technical
> expertise, but it seems that the 'expertise' is becoming more and more
> a happy surprise.
>
> Blowing off the issue of using zipcord for feedline with only one of the first order
> problems shows that the respondent isn't prepared to deal with problems
> that are deeper or less obvious than using an almost totally incorrect
> feedline technology. Jumping on one possibility of flaws with the test
> example, seems to show a lack of complete understanding (not a complete
> lack of understanding, but a lack of broad understanding.) I don't think
> that I would enumerate 'power loss' alone, but consider perhaps 5-6
> problems with zip-cord, where power loss is a rather coarse grained
> description. Assuming the defect is actually hidden in something that
> superficially looks right, 'power loss' isn't really going to point to the
> cause/effect of the problem. For example, ignoring radation or coupling
> into nearby metal pieces and junctions (which has been a significant
> source of EM interference, but certainly not 100% of the time), there
> are at least several obvious 'power loss' mechanisms due to the use
> of improper feedline -- but the 'power loss' is a resulting effect, and not
> the real cause of the problems. 'Power loss' is akin to saying that
> "it don't work" -- the reason for failure is more important than "it is broke."
>

> All too often, there are questions in the antenna and homebrew newsgroups
> (with sometimes equally wierd or misguided answers) that show a
> certain technical cluelessness in the community. Eventually, a reasonably
> correct answer will often be provided, but the 'odd' or 'slightly wierd'
> answers happen too darned often. Please refer to some of the previous
> discussed SWR issues, for example.

I should probably do a lot more snipping than I did but just what is the gripe with using zip-cord or any other twin lead?. I'll buy the dielectric complaint at a high enough frequency but the rest of the issues don't seem to hold water.
A balanced line by its nature doesn't radiate into 'nearby metal pieces' (within limits of course), nor is it somehow inherently more leaky than coax. The OTers religiously used dual RF ammeters in both wires and would trim accordingly...maybe this isn't the case with the appliance guy who would shove twinlead into the back of his JA-2002 model rig.

I don't read too well off of a monitor at 2 AM but the gist seems to be that you have to be of a certain technical prowess to understand balanced antennas/transmission lines when that is actually one of the more basic concepts that one may encounter when playing with antennas.
To veer back onto the topic of the "7 steps", this might be one of the areas that needs a tad bit more illumination for the dis-illuminatedati.
-Bill M

3202. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 06:48:45 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <art6hf11sok@enews1.newsguy.com>
Source record: 130593
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Bill Sohl" <billsohl@mindspring.com> wrote in message
news:arp0tc$2l1$1@slb0.atl.mindspring.net...
>
> "KC8PMX" <kc8pmx@NOSPAMdiamondcs.net> wrote in message
> news:arnpdg02nl0@enews2.newsguy.com...
> > Yep... overall the hobby is declining, but it is not from the testing
> > procedures.
>
> So how come the number of US hams is at an all time high?
> Are people just getting licenses, upgrading, etc and then not
> operating at all?

Trickery in the numbers.... I can make those numbers "say" one thing, as you can have them "say" another.... Accountants do that on a daily basis.... Overall, there are not enough new hams coming into the ranks that will be needed to replace/fill-in the spots that will invariable happen due to death of the larger percentage of current hams, that being the 45-75 age group. Within 10-20 years, we will lose a good chunk of that age group either to accidental or typical health related issues.

Whether or not someone wants to argue the incentive licensing issue, or not, the whole thing won't do a darned bit of good, unless there is the public's knowledge about ham radio.

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

"Symbolism is for the simple minded....."

3203. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 06:51:54 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <art6hg21sok@enews1.newsguy.com>
Source record: 130594

That is why I have at least a 3 day stock of drinkable water, and simplistic but nourishing foodstuffs set aside. As well as a portable heat source in case of power failure....

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

"Symbolism is for the simple minded....."

> In the CERT training I just completed, the firefighters and police and
> emergency-services staff kept reiterating: "In the case of a real
> disaster, figure that you and your neighbors are going to be on your
> own for the first three days."

3204. Re: 4NEC2 ver 5.0 Questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 08:31:42 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0211250031.2d16f0ba@posting.google.com>
Source record: 130591

Hello..,

You may install 4nec2(x) where you like. The suggested C:\4nec2 in the _ReadMeFirst.txt file is only used as an example.

The directory specifications in the 4nec2.ini file are set when you select your directory where your *.nec files are located. The other directories can ba manually changed by using the 'Settings -> Folders' option on thye 'Main' form.

Read the -ReadMeFirst.txt and the Help file when you want to interface with the VOACAP/ ICEPAC propagation prediction freeware.

Concerning the 4nec2XS engine the following: Initially I used the 'standard' nec2d***.exe, once created by Jos Bergevoet. However, when XP was introduced this DOS based executable would not run any more. So a new engine (nec2dX) was created by Raymond Anderson to overcome this problem. In turn I used this exe to integrate the nec2d and the SomNec routines into a single nec2dXS.exe.

See the ReadMeFirst.txt file for more background info about the pro's and contra's for the nec2dXS engine.

Arie.

3205. Simple horizontal antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 12:21:47 UTC
From: no.sp@m.here
Message-ID: <zBoE9.569$FZ.71871@newsfep1-win.server.ntli.net>
Source record: 130592

Hi,

I've just put the paperwork in the post to get my HF callsign - and the only thing holding me back is the lack of an antenna system.

I've measured the length of my garden and can achive a maximum of 130 feet straight-line run. There seems to be lots of options around for a multiband solution - G5RV, Zepp, straight-dipole, Windom,etc. and I'm somewhat confused as to the best solution (bearing in mind I want to homebrew the antenna).

I already have a 1/2 size G5RV but do not intend to put this up as the balanced feeder is in poor condition - however the insulators,etc. are fine and I will recycle these.

Looking through previous posts, lots of people suggest constructing a half wave dipole of the longest length possible. And the feeding that with balanced feeder back to the ATU? Assuming this is the way forward - Can I ask:-

a) What impedence should the balanced feeder be? I seem there is 450 and 600 ohm versions?

b) Does the length of balanced feeder matter?

c) Where the feeder meets the dipole - Do I need any form of matching?

d) If I wish to bring coax into the house - Do I need a balun to tie into the balanced feeder?

e) I have have quite alot of computer gear which is always powered up. Given this, is it better to reduce the lenght of balanced feeder + increase the coax length to reduce local interference pickup.

f) I have a long length of multi-stranded PVC coated wire. Is it OK to use this for the antenna? I appreciate its tensile strenth isn't ideal but I want to use the materials I already have to hand.

Sorry if these are rather obvious questions which have been asked before - I did check through the archives before making this post.

Thanks for any advice offered,

73s Steve.

3206. Re: Modeling a Wire Fence in EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 13:12:29 UTC
From: K4IA <K4ia@novacoxmail.com>
Message-ID: <1lpE9.21720$wc2.1019927@news2.east.cox.net>
Source record: 130595

Anyone care to comment on the safety issue? Wouldn't someone touching that
chain link fence get zapped?
--
Radio K4IA
Craig "Buck"
Fredericksburg, Virginia USA

FISTS 6702 CC 788 Diamond 64
K1# 470 K2# 2460
"Mike" <scifiguy at starband dot net> wrote in message
news:ucr2uus14gmkhkbtsefesnatj6drcahmgp@4ax.com...
> Having read the conventional wisdom that wire fences should be
> grounded and used as additional counterpoise for ground plane
> antennas, I decided to try to model this in EZNEC 3.0. I have the
> regular version, so I'm limited to 500 segments. How can I make a
> simplified model of a 4 foot high by 100 foot long section of 2x4 inch
> wire mesh that is around 400 segments or less?
>
> Thanks for any suggestions.
>
> --Mike
>
>
> ----------== Posted via Newsfeed.Com - Uncensored Usenet News
==----------
> http://www.newsfeed.com The #1 Newsgroup Service in the World!
> -----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers
=-----

3207. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 13:19:24 UTC
From: richardharrison@webtv.net
Message-ID: <11508-3DE2235C-307@storefull-2316.public.lawson.webtv.net>
Source record: 130597

John Dyson wrote:
"A broad, expansive experience is useful to get the big picture of both the "ideal world" (head-in-the-sand) issues, and also the real world situations."

Tongue-in-cheek issues initiated this thread which quickly turned to serious differences over reform of the amateur radio hobby and licensing requirements. Licensing is a minimum entrance for initiaion of amateur transmissions, not a diploma certifying expertise.

The people own the radio spectrum in our democratic republic. This spectrum is regulated to ensure maximum utility and enjoyment as a goal.

Licensing is a regulation tool to simplify enforcement of necessary rules. If you don`t have a proper license, no argument is necessary to show that you are in violation when using the spectrum without the specified credential.

Licensing is simply a minimum requirement to access spectrum for radio amateurs. Expertise may be a requirement for legal bar exams, medical licenses, certification as a public accountant, or as a professional engineer, but we are discussing AMATEUR RADIO, not a profession. Get a grip!

Best regards, Richard Harrison, KB5WZI

3208. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 13:36:28 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0211250536.6d726067@posting.google.com>
Source record: 130596

Richard Clark <kb7qhc@attbi.com> wrote in message
news:<f482uucmehcqtdo7c7cc141e80b9snkj8b@4ax.com>...

[snipped]

> You have to be careful in that not all characteristics are fungible
> between RF and digital. For one, a digital signal is 1's and 0's and

I disagree. A cable is a cable regardless of what type of signal is
used. Now if you want to talk about phase dispersion or loss per
frequency, which you mention below, that is a different story. Of
course I am not talking about cables that have some type of dielectric
that has a molecular absorption line at the frequency you are trying
to use. PVC insulated telephone cable does not like RF at more than a
few watts. Been there done that.

Also, don't forget that for a 100 MHz 'digital' waveform you will need
500 MHz or more bandwidth to faithfully reproduce the squarewaves.
That is why you rarely see actual 'square waves', even on digital
signals.

> as long as there is sufficient S+N/N ratio (roughly 12dB or better), a
> lossy cable is not that much a problem. The problem for digital (and
> not necessarily RF, or at least not at this scale) is dispersion
> (phase integrity). That is the number one killer. Even then, some

This is called group delay. It is the slope of phase vs frequency.
This is a major concern in RF. Communication Satellite makers are
very concerned about this, even over the relatively narrow bandwidth
of 100 MHz (on a 29 GHz carrier)

My main point is that 'digital' is just a subset of reality. We get
so used to working with just a few small 'pieces of the puzzle' that
we forget that there actually is a 'big picture'.

Jim
N8EE

3209. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 13:47:43 UTC
From: richardharrison@webtv.net
Message-ID: <21912-3DE229FF-663@storefull-2314.public.lawson.webtv.net>
Source record: 130600

Bill M. Wrote:
"A balanced line doesn`t radiate into "nearby metal pieces" (within limits of course), nor is it somehow more leaky than coax."

Agreed, but as Bill implied, balance is everything. Twin-lead is installed on standoffs which coax doesn`t need to keep its balance.

If you are located off the centerline of a balanced pair, energy reaching you from the twin-lead likely doesn`t quite cancel.

Zipcord should excel in balance as its conductors are very close together. Otherwise, it is just low-impedance twin-lead, with a lossy dielectric in some cases.

Best regards, Richard Harrison, KB5WZI

3210. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 14:09:22 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211250609.29d3e1a8@posting.google.com>
Source record: 130598

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<25089-3DE18EF7-324@storefull-2312.public.lawson.webtv.net>...
> J. Harvey wrote:
> "I saw a table that provided attenuation factors (dB) for various
> thicknesses of metals at various frequencies."
>
> R-F current density decreases exponentially with depth below the surface
> of a conductor. There is less current to take a bite out of as as depth
> increases just as there is less current to take a bite out of at a
> distance along a lossy transmission line.
>
> Skin depth depends on conductor resistivity. There isn`t much difference
> in the resistivities of copper and aluminum. Skin depth in a particular
> metal varies inversely with the square root of the frequency. At 100x
> the frequency, you get 1/10 the depth of penetration.
> .
Richard I thought there was more to it than that.
I seem to remember that the fact that whether
the material is in tube form, solid or thin plate
requires a correction factor. In other words, the
skin depth is not an exact science.
Art

> At 1 KHz, skin depth in copper is 0.0826 in.
> At 10 KHz, it`s 0.0260 in.
> At 100 KHz, it`s 0.00826 in.
> At 1 MHz, it`s 0.00260 in.
>
> The pattern is established so you can extend the table above if you
> would like.
>
> The current has dropped at one skin depth to 36.8% of the magnitude on
> the surface. This fraction is 1/e. The base of the natural log is "e".
> This attenuation is 1 neper. Look up the number of db this is in your
> conversion tables, if you are interested.
>
> At 10 MHz, you can see that skin depth in copper is 0.000826 in. This is
> less than one thousandth of an inch. How thick is your aluminum or
> copper foil?
>
> Best regards, Richard Harrison, KB5WZI

3211. Butternut mounting ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 14:09:30 UTC
From: Mogens <petsen@lazy.dk>
Message-ID: <3de22fe0$0$71707$edfadb0f@dread11.news.tele.dk>
Source record: 130599

Hi

I guess that the idea of the design is to dig the ground post into the soil (or concrete) so that the 80m coil is just above earth.
What is the best way to mount the ground post of the HF6V, when mounting direct on the ground surface ?
I think some use a pipe with an inner diameter coresponding to the OD of the ground post, but how to prevent rain and moist to accumulate in the pipe?
Here in rainy Scandinavia I am afraid that water will start a galvanic corrosion, because the iron pipe and aluminum are electrically different.

Or does any mount the HF6V on a little post, so that the ground post is just above the surface ?

Mogens

3212. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 14:17:07 UTC
From: cprstn54zz@att.net
Message-ID: <3de22fe9.30692421@news-server.optonline.net>
Source record: 130602

On 25 Nov 2002 05:36:28 -0800, jim.bolinger@lintek.aeroflex.com (JLB)
wrote:
> PVC insulated telephone cable does not like RF at more than a
>few watts. Been there done that.

Does this mean 7 MHz, 5-watt QRP is OK on network-quality twisted
pair? What is the impedance?

There is no point in doing this unless it has lower attenuation than
RG-174. Does it?

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

3213. WTD:Motorola Software GM300

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 14:30:47 UTC
From: KC0EH <okiemansc@yahoo.com>
Message-ID: <ruqE9.170$yy.144854@newsread1.prod.itd.earthlink.net>
Source record: 130601
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

I am in need of a hopefully ham version of Motorola GM 300 version 4 or version5 software for converting it to the 440 band for repeater use.
THANKS,
...Charlie...KC0EH...

3214. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 14:56:21 UTC
From: Jack Smith <jsmith@mnsinc.com>
Message-ID: <m9e4uu4ib2gb4g5jhd8kfb00q2vle6a6t5@4ax.com>
Source record: 130603

On Sun, 24 Nov 2002 13:45:04 GMT, cprstn54zz@att.net (Ken) wrote:

>I have seen a few references to using twisted-pair network cable as a
>lightweight, low-loss feedline for portable use. However, I have
>found nothing as to impedance, loss and proper usage.
>
>Can someone please point me to a source?
>
>Ken KC2JDY
>
>
>Ken
>(to reply via email
>remove "zz" from address)

Here are some specs (dB/100ft) on Cat 5e cable from
http://www.clear-bit.com/ClearBit/5edata.htm

MHz
FREQ TIA SPEC WORST CASE AVERAGE
1 2.4 2.0 1.9
4 4.5 4.1 4.0
8 6.3 5.7 5.6
10 7.0 6.5 6.4
16 8.8 8.1 8.0
20 10.3 9.2 9.0
25 11.4 10.3 10.1
31.25 12.7 11.5 11.3
62.5 18.5 16.6 16.3
100 24.0 21.4 21.0
200 - 31.3 30.7
250 - 35.6 34.8

Impedance is around 100 ohms.

3215. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 15:03:37 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211250703.78359903@posting.google.com>
Source record: 130604

Wes Stewart <n7ws@nowhere.com> wrote in message
news:<ss0btus5335fmut32c3vi5j23549bpvvp7@4ax.com>...
> On Fri, 15 Nov 2002 15:13:35 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> |Of course, you know how I'd figure out how to cut the wires -- I'd use
> |EZNEC. But then I'm highly prejudiced.
>
> Wouldn't ELNEC be a better choice in this case?
>
> Wes

Wes somewhere you stated that you were having a heck of a time
modelling this style of feed.
I just had cause to model this in connection with something else
and I also could NOT model it where it reflected my claim.
This ofcourse is embarrasing to me as it will invite
some jeering but the truth must be said.
I would add that this and many other experiments were done
before the advent of modeling and later when I did use them
on other things I made many learning errors as many others did.
When I made the claim it was because of numorous experiments
that provided broad banding and I mean numorous.
In defence I can only suspect that the thin insulation
or the small gap coupled with very close thin elements are the
culprits
I am not sure that I claimed to have modelled it as it must be close
to ten years ago when I did that work and memories do not always work
well.
What I am confident in is that the events took place and worked as
claimed.
Sorry for any inconvenience I may have caused you.
(The multi frequency antenna DOES model as claimed)
Let the derision begin.....
Art

3216. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 15:10:21 UTC
From: richardharrison@webtv.net
Message-ID: <3013-3DE23D5D-301@storefull-2317.public.lawson.webtv.net>
Source record: 130607

N4LQ wrote:
"Twisted pair feeder is described in my 1937 ARRL Antenna Handbook. Impedance is about 75 ohms, affected by noisture and has more loss than coax. It became standard for telephones and door bells."

Why not use 75-ohm coax in place of twisted pair? I remember the phone twisted pair stapled to the wall. That isn`t an impedance match for phonelines, ringer, or telephone set, but at audio frequencies the premise wiring is short in terms of wavelength. Phone drop wire and military field phone wires were often twisted pair too.

Twisted pair was used for r-f in 1937. That was the year we replaced our Majestic TRF console with a new 17-tube radio that included (4) 6L6`s driving a 15-inch loudspeaker. It wasn`t even from Midwest. It was a GE. Dial illumination shifted from red to green as you tuned in stations (saturable reactors controlled by the AVC).

Twisted pair was used with the "Vee-Doublet" antenna kit that came with the "all-wave" radio. The balanced antenna was transformer coupled to the twisted feedline to the radio. It worked well as a low-noise antenna system.

Best regards, Richard Harrison, KB5WZI

3217. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 15:17:44 UTC
From: Bill Ogden <ogden@us.ibm.com>
Message-ID: <3DE23F18.B31FFF8D@us.ibm.com>
Source record: 130605

The advantage of the half-sloper (over a vertical with gamma matches) would seem to be that the high-current point is elevated and will, we assume, radiate better. Like most towers, mine is somewhat obstructed at ground level. I would guess that the high feed point is the primary attribute of a half-sloper.

Insulating the base of a TX-455 would be a mechanical challenge that I will skip.

Thus far, my question about feeding it at the top or at the top of the second tower section has drawn a few suggestions to feed at the top (and ignore any disturbance to the quad's pattern).

Bill
W2WO

Richard Clark wrote:

> On Sun, 24 Nov 2002 12:59:22 -0500, "Bill Ogden"
> <wogden@attglobal.net> wrote:
>
> >I briefly talked with the Alpha-Delta about using one of their half-slopers
> >on my current 40' tower, were I considered placing it at about the 30' level
> >(so as not to interfere with the quad). They said there was not enough
> >counterpoise above it, since the quad presenting much less top loading than
> >a typical tribander.
> >
> >Since they talked themselves out of a sale, I assume they had good reason
> >for what they said about the need for some amount of loading above the
> >half-sloper feed point. Whatever one might think about purchasing a
> >half-sloper (as opposed to simply creating your own), the AD people do sell
> >a considerable number of these and need to deal with many users. Their
> >experience appears to be that substantial loading (whatever that might mean
> >in quantative terms) above the feed point is needed in order to produce
> >predictable loading.
> >
> >Hence my question about my soon-to-be new tower. I would have more tower
> >above the feed point than when I asked AD about my old tower.
> >
> >Bill
> >W2WO
> >
>
> Hi Bill,
>
> The tower and quad present an opportunistic radiator for some
> characteristic frequency. I think we can all agree it is unlikely to
> fall into a ham band. Outside of that frequency, and with sights set

> on 80/160, we must resort to matching - enter the half-sloper pressed
> into out-of-band service.
>
> The discussion of application at 80/160 must then turn back to that
> opportunistic radiator as we ask the question: is it tall enough? The
> tower height gives some clue. A 50' tower would be quarterwave at
> 60M. 80M would seem near, and 160M a long shot. Consider how small
> radiators are made longer with top-hats. The question the AD people
> had with what you were mounting, was to assess the quality of top-hat
> action.
>
> In their estimation, your quad does not have the same coverage and
> continuity as does a yagi with boom grounded elements (which is
> probably at the top of their assess). This answers the significance
> of counterpoise/mass. However, given just an empty boom swinging in
> the wind, that is enough to boost the tower's effective height into
> 80M class as long as you have some radials. At that point I would
> simply abandon the half-sloper and build two gamma matches into the
> tower. I can see several advantages: less feedline, and an optimal
> match at the antenna (rather than through a swinging dipole). If you
> could insulate the base; then you would also have a half-wave 40M
> candidate.
>
> 73's
> Richard Clark, KB7QHC

3218. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 15:27:55 UTC
From: richardharrison@webtv.net
Message-ID: <3013-3DE2417B-302@storefull-2317.public.lawson.webtv.net>
Source record: 130608

Art, KB9MZ wrote:
"When I made the claim it was because of numerous experiments that provided broad banding and I mean numerous."

Confusing to me again. Art said the goal was frequency agility by easy tuning to discete frequencies across a wide spectrum rather than broad banding if I remember correctly.

Best regards, Richard Harrison, KB5WZI

3219. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 15:36:28 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <YkrE9.822$pc.161579@news.iquest.net>
Source record: 130606

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:11508-3DE2235C-307@storefull-2316.public.lawson.webtv.net...
>
> Licensing is simply a minimum requirement to access spectrum for radio
> amateurs. Expertise may be a requirement for legal bar exams, medical
> licenses, certification as a public accountant, or as a professional
> engineer, but we are discussing AMATEUR RADIO, not a profession. Get a
> grip!
>
Okay, now you are starting to see my position!!! I am not meaning to be
contrary, but I haven't really been suggesting the universal need for a
technology competency exam in Ham radio. I have been suggesting a
need for good EM citizen competency for high power transmitters.

However, the day-to-day NEED for competency in Morse code is rather
limited nowadays, yet is still required in some cases, apparently only
because of treaty reasons and attitudes that might try to maintain an elitism or
exclusive club.

So, my argument, all along, is that normal day-to-day usage of any
high power transmitter (even purchased) does need special know-how
in order to resolve problems (safely and EM citizen responsibly) that
aren't as common with lower power
operations. Sure, there are some ad-hoc help forums that can help
non-savvy people mitigate problems, but it is apparent to me that
problems can too-often exist without knowing, mostly because of
the lack of a squeaky wheel.

The relative importance for RESPONSIBLE HRO behavior is that technical
competency (unless there are Ham radio installers and equipment
certification authorities) is much more important than anachronistic Morse
code skills.

In fact, I am NOT REALLY advocating an incredibly difficult qualification
exam. I am advocating the fact that time/effort for newbies is best spent
on learning the technology (not necessarily to the engineering level) in
enough detail to avoid being a bad EM citizen (and personal safety) rather
than an old-time skill that isn't really needed for most reasonably
plausible cases of communications or the public service aspect of Ham
operations. A slightly off-topic, but perfect example of the safety issue is
that even professional remote broadcast crews have been hurt by disagreements
between antennas and powerlines :-(.

Honestly, I do tend to be a 'cart before the horse' person, where I tend
to become technically an expert before jumping in and doing something
as a hobby (and hopefully at work.) This sometimes initially side-tracks

the hobby aspect, and I have destroyed more than one hobby in becoming an expert in the field, getting a job in the field, and losing much of the enjoyment aspect of the hobby. Frankly, I am currently in a "detox" phase of such a situation, where my FreeBSD hobby (where I did some seriously good stuff) turned into a job. :-(. Few who worked with me on the project knew that I was really an EE who happened to do computer stuff (when needed in the hobby or at work.) Even when doing OS stuff at AT&T, it wasn't uncommon for the RF guys to ask me for help about some tricky problems (e.g. unforseen sources of parametric nonlinearities.)

Maybe I do take things too seriously, and that kind of criticism is accepted by me, and probably accurate!!!

John

3220. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 15:50:24 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <%xrE9.823$pc.161651@news.iquest.net>
Source record: 130609
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"KC8PMX" <kc8pmx@NOSPAMdiamondcs.net> wrote in message
news:art6hf11sok@enews1.newsguy.com...
>
> Whether or not someone wants to argue the incentive licensing issue, or not,
> the whole thing won't do a darned bit of good, unless there is the public's
> knowledge about ham radio.
>
We have a generation of kids that are used to the overwhelming sensory
experiences of video games, and even the WWW. In order to gain more
participants, it seems to me that the issue of 'attractiveness' is more
fundamental than the licensing qualifications.

In a way, it makes little sense to decrease the qualifications if they are
already so low, and even that slight impediment is stopping participation.

People today have so many opportunities for day-to-day communications,
that there is even a bit of a movement to hide from the on-demand
communications distractions. Ham radio already has alot of competition
from other communications systems. I am not claiming that current
communications systems are equivalent to Ham Radio, but because there
is a little bit of a 'dream' that is satisfied by Cellular or the WWW (for
example) that makes the results of Ham Radio superficially less exotic
and appear to be less of a challenge. (Of course, that isn't quite true,
but appearances are sometimes more important than reality.)

Ham radio will tend to draw more interest when it can provide a compelling
and glitzy 'features.' This is a difficult thing to decide, because some of the
'best' glitzy things to do might take LOTS of bandwidth and/or might not even be
applicable to ham radio.

I suspect that there are the 'ham radio' club marketing (e.g. ARRL) are
trying to figure out some killer applications for the hobby. Of course, it is
a different kind of killer application than 'Spreadsheet', 'Video games' or
somesuch, but I suspect that there is something out there.

Ham radio already has SOME applications (contests, emergency communications,
casual communications, electronics hobby), but additional *generationally relevent*
applications need to be found.

From what I see on the outside, Ham Radio isn't dying, but given the powerful
tools available, it seems odd that more appropriate high visibility hobby
applications havent been found (or publicized much.)

John

3221. Want The latest In New Ham Websites??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 16:16:10 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <e1sE9.35214$ro.1478766@news2.west.cox.net>
Source record: 130610

Try URL:
http://ac6v.com/new.htm

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com

3222. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 16:46:23 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0211250846.3efd57c9@posting.google.com>
Source record: 130611

Hi,
Thanks a bunch for ur constant reply. The thing it makes
interesting is the balanced feed which is a requirement for mobile
antennas. Moreover its an another way of interpretation of loop slot
antennas. I read couple of papers on how its working and the
principle behind it. I like to know whether u are a student or
working in a company. Just curious to know.Can i send u an image to ur
personal mail.

Thanks.

3223. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 16:51:23 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <k8l4uugbets1mi6jm7r43np0a7e2vvjgf5@4ax.com>
Source record: 130612

On Mon, 25 Nov 2002 10:17:44 -0500, Bill Ogden <ogden@us.ibm.com>
wrote:

>The advantage of the half-sloper (over a vertical with gamma matches) would seem
>to be that the high-current point is elevated and will, we assume, radiate
>better. Like most towers, mine is somewhat obstructed at ground level. I would
>guess that the high feed point is the primary attribute of a half-sloper.
>
>Insulating the base of a TX-455 would be a mechanical challenge that I will skip.
>
>Thus far, my question about feeding it at the top or at the top of the second
>tower section has drawn a few suggestions to feed at the top (and ignore any
>disturbance to the quad's pattern).
>
>Bill
>W2WO
>
>

Hi Bill,

The simple response is to build the gamma match at the top instead of
the bottom. If the match is adjustable enough to cope with this novel
site, that should be enough.

73's
Richard Clark, KB7QHC

3224. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 16:55:42 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <5fl4uu0evapg4d0hsods0sonfqn0jmu9n9@4ax.com>
Source record: 130613

On Mon, 25 Nov 2002 14:17:07 GMT, cprstn54zz@att.net (Ken) wrote:

>On 25 Nov 2002 05:36:28 -0800, jim.bolinger@lintek.aeroflex.com (JLB)
>wrote:
>> PVC insulated telephone cable does not like RF at more than a
>>few watts. Been there done that.
>
>Does this mean 7 MHz, 5-watt QRP is OK on network-quality twisted
>pair? What is the impedance?
>
>There is no point in doing this unless it has lower attenuation than
>RG-174. Does it?
>
>Ken KC2JDY
>
Hi Ken,

Your last comment is the most telling. One of the most oblivious
offerings I've heard is that QRP, being a lower wattage service,
needn't worry about sub-par components because the power lost is
trivial.

If QRP needs ANYTHING, it is premium components and maximal
efficiency.

73's
Richard Clark, KB7QHC

3225. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 16:59:38 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <9UCJMvB6bl49EAK0@ifwtech.co.uk>
Source record: 130618

Art Unwin KB9MZ wrote:
>Richard I thought there was more to it than that. I seem to remember
>that the fact that whether the material is in tube form, solid or thin
>plate requires a correction factor. In other words, the
>skin depth is not an exact science.

No, it is a very exact science!

Some textbooks derive the classic skin depth formula for one specific cross-sectional shape of conductor, but that's misleading. If you zoom in to look at a microscopic patch of the surface, it can be proved that the skin effect is generated "locally". It doesn't depend on the larger-scale shape of the conductor, and it doesn't depend on the reason why the RF current is flowing

A copy of the proof (not by me) is at:
www.ifwtech.co.uk/g3sek/misc/skin.htm It's heavy EM math, but the conclusion is clear and simple:

If RF current is flowing across any conducting surface, the skin effect will always happen. That means the skin depth is independent of the size and shape of the conductor (unless dimensions are so small that they are similar to the skin depth itself).

Because skin effect is generated locally, independent of the RF circuit configuration, it can be taken as a "given" when you're trying to work out how the circuit operates.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

3226. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 17:04:45 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <artl7dgpq1@sparta.btinternet.com>
Source record: 130615

> My main point is that 'digital' is just a subset of reality. We get
> so used to working with just a few small 'pieces of the puzzle' that
> we forget that there actually is a 'big picture'.
>
> Jim
> N8EE
==========

Peculiarly enough, the 'big picture' is more simple than its subsets.

The electrical story of transmission lines, from DC unpwards, is contained
in 4 simple, so-called primary constants - R, L ,C and G.

Makes one wonder what all the fuss is about. ;o)

Reg, G4FGQ

3227. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 17:04:54 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <kkl4uuokoj9rv350tu9vr16optvqjadk5s@4ax.com>
Source record: 130614

On 25 Nov 2002 05:36:28 -0800, jim.bolinger@lintek.aeroflex.com (JLB)
wrote:

>Richard Clark <kb7qhc@attbi.com> wrote in message
news:<f482uucmehcqtdo7c7cc141e80b9snkj8b@4ax.com>...
>
>[snipped]
>
>> You have to be careful in that not all characteristics are fungible
>> between RF and digital. For one, a digital signal is 1's and 0's and
>
>I disagree. A cable is a cable regardless of what type of signal is
>used.
You say you disagree, and then immediately add two reasons why cable
is NOT cable - regardless (you show considerable regard in these
reasons after all).
>Now if you want to talk about phase dispersion or loss per
>frequency, which you mention below, that is a different story. Of
>course I am not talking about cables that have some type of dielectric
>that has a molecular absorption line at the frequency you are trying
>to use. PVC insulated telephone cable does not like RF at more than a
>few watts. Been there done that.
>
>Also, don't forget that for a 100 MHz 'digital' waveform you will need
>500 MHz or more bandwidth to faithfully reproduce the squarewaves.
>That is why you rarely see actual 'square waves', even on digital
>signals.
>
For all of 30M using premium cable and hardware repeaters. Loss is a
trivial concern in a system like this. Folks using it, get used to
it, and the next step is they begin to think it is normal and just as
easily applied to any situation - it just ain't so.
>
>
>> as long as there is sufficient S+N/N ratio (roughly 12dB or better), a
>> lossy cable is not that much a problem. The problem for digital (and
>> not necessarily RF, or at least not at this scale) is dispersion
>> (phase integrity). That is the number one killer. Even then, some
>
>This is called group delay. It is the slope of phase vs frequency.
>This is a major concern in RF. Communication Satellite makers are
>very concerned about this, even over the relatively narrow bandwidth
>of 100 MHz (on a 29 GHz carrier)
>

>
>My main point is that 'digital' is just a subset of reality. We get
>so used to working with just a few small 'pieces of the puzzle' that
>we forget that there actually is a 'big picture'.
>
>Jim
>N8EE

Hi Jim,

Digital is a subset of anything? Digital requires a superset of characteristics compared to standard analog RF. You added to the list yourself.

As I pointed out, and as you have confirmed through expanded examples, Digital characteristics and RF Power characteristics are not fungible.

73's
Richard Clark, KB7QHC

3228. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 17:15:28 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <17m4uuot3tpu9jansae1q7vu3fc9pdbg9k@4ax.com>
Source record: 130616

On Mon, 25 Nov 2002 09:10:21 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Phone drop wire and
>military field phone wires were often twisted pair too.

Hi Richard,

My buddy has an old power line engineer's handbook from the turn of
the last century. In it (and easily confirmed by observation as you
drive down the road) is the portrayal of how to twist the power lines.

Twisting lines is the single greatest way to reduce interference by
reducing the area of a loop, and then creating in-series opposing
loops to cancel long wavelength induced components. It can knock down
this kind of interference by 60dB.

73's
Richard Clark, KB7QHC

3229. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 17:22:06 UTC
From: richardharrison@webtv.net
Message-ID: <11508-3DE25C3E-316@storefull-2316.public.lawson.webtv.net>
Source record: 130617

Art, KB9MZ wrote:
"Richard I thought there was more to it than that. I seem to remember that the fact that whether the material is tube form, solid or thick plate requires a correction factor."

That seems reasonable as a significant factor in skin depth is distribution of magnetic lines and their inductive effect.

However, from Terman`s 1955 tome, page 23:

Current at depth z / current at the surface =
e to the minus depth / skin depth

Skin depth is: 5033 times the square root of the resistivity divided by the permeability x frequency. The answer is in centimeters.

For copper this reduces to 6.62 / sq. rt. frequency. I believe this is at 20 centigrade degrees. My little table was computed from this formula. Terman says: "At 1 Mc the skin depth in copper is thus 0.0066 cm, or 0.0026 in."

I don`t find a form qualification in Terman`s exposition. Thus, I conclude it is inconsequential. My skin depth calculation agrees with Terman`s, so I don`t believe I made a mistake in my table.

Best regards, Richard Harrison, KB5WZI

3230. Re: Simple horizontal antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 18:01:17 UTC
From: KA9CAR <nospam@nospam.usa>
Message-ID: <artoas$1mm7$1@news1.tribune.com>
Source record: 130619

Well here is how mine works.

#12 Stranded pvc coated house wire, is stretched 100 feet between two trees, using a spring and pulley to maintain about 20 pounds tension as the trees sway.

Home made Parallel Line (1 inch spacers, impedance unknown) from doublet to first wall of house. Drilled two 1/8 inch holes same spacing as feed line and pushed conductors through, spliced on inside.

another 30 feet then a 1" plus hole drilled in wall, and feed line fed through hole. Filled in with plastic bag to keep draft and animals out.

Connected to (balanced) tuner.

Good Luck.
KA9CAR

<no.sp@m.here> wrote in message
news:zBoE9.569$FZ.71871@newsfep1-win.server.ntli.net...
> Hi,
>
> I've just put the paperwork in the post to get my HF callsign - and the
> only thing holding me back is the lack of an antenna system.
>
> I've measured the length of my garden and can achive a maximum of 130
> feet straight-line run. There seems to be lots of options around for a
> multiband solution - G5RV, Zepp, straight-dipole, Windom,etc. and I'm
> somewhat confused as to the best solution (bearing in mind I want to
> homebrew the antenna).
>
> I already have a 1/2 size G5RV but do not intend to put this up as the
> balanced feeder is in poor condition - however the insulators,etc. are
> fine and I will recycle these.
>
> Looking through previous posts, lots of people suggest constructing a
> half wave dipole of the longest length possible. And the feeding that
> with balanced feeder back to the ATU? Assuming this is the way forward -
> Can I ask:-
>
> a) What impedence should the balanced feeder be? I seem there is 450 and
> 600 ohm versions?
>
> b) Does the length of balanced feeder matter?
>
> c) Where the feeder meets the dipole - Do I need any form of matching?

>
> d) If I wish to bring coax into the house - Do I need a balun to tie
> into the balanced feeder?
>
> e) I have have quite alot of computer gear which is always powered up.
> Given this, is it better to reduce the lenght of balanced feeder +
> increase the coax length to reduce local interference pickup.
>
> f) I have a long length of multi-stranded PVC coated wire. Is it OK to
> use this for the antenna? I appreciate its tensile strenth isn't ideal
> but I want to use the materials I already have to hand.
>
> Sorry if these are rather obvious questions which have been asked before
> - I did check through the archives before making this post.
>
> Thanks for any advice offered,
>
> 73s Steve.
>

3231. Re: skin effect

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 18:03:29 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <JutE9.827$pc.162569@news.iquest.net>
Source record: 130620

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:85ed38d.0211250609.29d3e1a8@posting.google.com...
> richardharrison@webtv.net (Richard Harrison) wrote in message
news:<25089-3DE18EF7-324@storefull-2312.public.lawson.webtv.net>...
> > J. Harvey wrote:
> > "I saw a table that provided attenuation factors (dB) for various
> > thicknesses of metals at various frequencies."
> >
> > R-F current density decreases exponentially with depth below the surface
> > of a conductor. There is less current to take a bite out of as as depth
> > increases just as there is less current to take a bite out of at a
> > distance along a lossy transmission line.
> >
> > Skin depth depends on conductor resistivity. There isn`t much difference
> > in the resistivities of copper and aluminum. Skin depth in a particular
> > metal varies inversely with the square root of the frequency. At 100x
> > the frequency, you get 1/10 the depth of penetration.
> > .
> Richard I thought there was more to it than that.
> I seem to remember that the fact that whether
> the material is in tube form, solid or thin plate
> requires a correction factor. In other words, the
> skin depth is not an exact science.
>
AFAIR, the skin effect results from the AC field in/around the material.
By referencing some EM books, and a little bit of calculus, the skin
effect should be relatively easily predicted. It is likely a near EXACT
science, but the plug'n'chug formulas aren't likely always applicable.
(I seem to remember, deep in the recesses of my memory, that
skin effect is easily predictable -- but my memory also glitches
at times on subjects like this that I don't deal with every day.)

If someone is really, really interested, I might be able to find the
theory and basic equations, and show some examples. However,
even the techno-stikler me isn't really that interested :-).

Much stuff like this (including antennas and stripline stuff) can be
done with finite element approximations on the computer. Alot of
the stuff resolves from diffeqs and/or line/surface/volume integrals.
None of it is brain surgery, but the terminology in literature can
sometimes boggle the mind. Simple, regular shapes can often
be solved into explicit formulas. It might even be true in the
practical case that the skin effect isn't extremely sensitive to shape,
but it seems that significant changes would affect the behavior
of the flow of AC.

When embarking on new interests (in details), the hardest part
for me is to find the tutorial and detailed reference material. The
2nd hardest part (but often taking the most time) is learning (relearning)
the terminology. The actual 'facts' learned in the process are
usually extremely understandable, but the terminology short-cuts
and traditions can be stumbling blocks. (e.g. a good degenerate
case is the EE use of 'j' for the imaginary axis, while math
people tend to use 'i'. The bad news is that i and j haven't
historically always been formally the same thing, even though they
seem to be used interchangeably!!!)

John

3232. Re: Simple horizontal antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 18:20:18 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DE269E2.886F00DA@cwis.net>
Source record: 130621

Steve,
First, understand that an 'all band' antenna is always a
compromise. It almost never works as well as you'd like on
some band(s). Keeping that in mind, then;

a) Forgetting cost and availability, the higher the impedance
the 'better' balanced feed line. Since 450 ohm is more
common, it's what you see used most often, and it will
work just fine.

b) Yes and no. There will be times when the tuner just can't
make a good enough match to work well. The length of the
feed line can be changed a bit, and in most cases the tuner
can then make a good enough match. It takes a bit of
'juggling'
but a length can be found that is usable for all bands.

c) No.

d) If you want to use coax to get into the house, then use a balun
outside, and the shortest run of very low loss coax possible.

e) Not really. The coax run should be as short as possible. You
would get the same amount of interference from coax as you
would
from a balanced feed line.

f) The wire used for the antenna should be strong enough to hold
up
it's own weight and the feed line (if it isn't supported). You
will have a better idea about your wire's strength than I
would.

The only reason to use a balanced feed line rather than coax is
the lower amount of loss of the balanced line, or it's ability to
stand a higher SWR than coax before 'biting the dust'. There will
almost always be some loss, though.
Another alternative is to use multiple dipoles from a common
feed
point, and a coax feed line. That makes routing the feed line
easier
than balanced feed line, and you usually don't have to worry about
it's
length. One of the draw backs to doing that is that the supports
for
the antenna(s) have to be stronger because of the added weight

(not a
whole lot, but still at least some stronger).
Good luck...
'Doc

3233. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 18:28:19 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <lo-cnYowe4XF9n-gXTWcrg@comcast.com>
Source record: 130622

I think you guys hit in on the nose. I worked an SSB QRP station in the UK
the other day. He had a really good signal - antenna was a TH11...

BTW is twisted pair any less visible than RG58, or preferably - LMR190?

Tam/WB2TT
"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:5fl4uu0evapg4d0hsods0sonfqn0jmu9n9@4ax.com...
> On Mon, 25 Nov 2002 14:17:07 GMT, cprstn54zz@att.net (Ken) wrote:
>
> >On 25 Nov 2002 05:36:28 -0800, jim.bolinger@lintek.aeroflex.com (JLB)
> >wrote:
> >> PVC insulated telephone cable does not like RF at more than a
> >>few watts. Been there done that.
> >
> >Does this mean 7 MHz, 5-watt QRP is OK on network-quality twisted
> >pair? What is the impedance?
> >
> >There is no point in doing this unless it has lower attenuation than
> >RG-174. Does it?
> >
> >Ken KC2JDY
> >
> Hi Ken,
>
> Your last comment is the most telling. One of the most oblivious
> offerings I've heard is that QRP, being a lower wattage service,
> needn't worry about sub-par components because the power lost is
> trivial.
>
> If QRP needs ANYTHING, it is premium components and maximal
> efficiency.
>
> 73's
> Richard Clark, KB7QHC

3234. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 18:48:44 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <5dp4uuk3ec18v8h32a214kvcphtfe8tcph@4ax.com>
Source record: 130624

On 25 Nov 2002 08:46:23 -0800, anandnavaneeth@hotmail.com (anand)
wrote:

>Hi,
> Thanks a bunch for ur constant reply. The thing it makes
>interesting is the balanced feed which is a requirement for mobile
>antennas. Moreover its an another way of interpretation of loop slot
>antennas. I read couple of papers on how its working and the
>principle behind it. I like to know whether u are a student or
>working in a company. Just curious to know.Can i send u an image to ur
>personal mail.
>
>Thanks.

Hi Anad,

The point of a newsgroup is that there are more than just you and me following this line of inquiry. We function as surrogates for a wide community, thus the need to spend time on covering what to you may be old ground.

It is interesting that you find a balanced feed interesting. Why? You now need to describe what you mean by the rather jarring notion of a slot and a loop in the same context. THIS is where we get into the nut of the matter, and the point that keeps everyone reading.

You still need to provide a picture (not posted here, but to an URL). This is an expectation not of us, the older generation, but a lifestyle choice vigorously embraced by the students of today (you are with it, aren't you?). Sending me a picture does nothing for the rest of the readership (you are not the only student who attends this group). If you cannot find a way to publish this on the net, then go ahead and send it to me and I will do it.

I have worked for many, many companies. I am a consultant to Venture Capitalists and do research into technical and scientific feasibility of new products, ideas and so on. I have made presentations to at least $100 million in funds managers seeking projects. The fields I have performed R&D (actual construction, not just imaginings) in include Avionics, Medical Applications, Pure Research, Wood and Paper, Superconductivity, Telecommunications, Power grid, Instrumentation, WWW, Electronic and Physical Standards, Nanotechnology, RF communications, Environmental risk assessment, Nuclear contamination control, and on and on. All with only a degree in English (if you read this board more, you would find those who've done less and hold advanced degrees find my Shakespeare tedious). I've also spent a

number of years teaching electronics (component level) and RF communications systems to advanced Technicians and Engineers. As that was in the Navy, my students had to put up with my Shakespeare (Rank Hath Its Privilege), but then I had a higher calibre of student who could respond in kind rather than gripe like a malingerer.

73's
Richard Clark, KB7QHC

3235. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 19:15:25 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <3us4uuobgurhhpr4jn89fusqvom1qls31q@4ax.com>
Source record: 130625

On Mon, 25 Nov 2002 09:27:55 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Art, KB9MZ wrote:
>"When I made the claim it was because of numerous experiments that
>provided broad banding and I mean numerous."
>
>Confusing to me again. Art said the goal was frequency agility by easy
>tuning to discete frequencies across a wide spectrum rather than broad
>banding if I remember correctly.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

Unless it supports a caprice:
>>the events took place and worked as claimed.
When asked for proof:
>>I am not sure
...
>>memories do not always work well
memory seems to be a malleable quality favoring confusion and/or
advanced topics in fraktal Physiks.

73's
Richard Clark, KB7QHC

3236. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 19:23:13 UTC
From: richardharrison@webtv.net
Message-ID: <25089-3DE278A1-359@storefull-2312.public.lawson.webtv.net>
Source record: 130627

Richard Clark, KB7QHC wrote:
"Twisting lines is the single greatest way to reduce interference by reducing the area of a loop and then creating in-series opposing loops to cancel long wavelength induced components.."

Yes. 100 years ago, predates most powerline protective relaying and carrier systems. Today, much of the burden has shifted to microwave.

100 years ago, powerline transpositions were probably demanded by the phone company to reduce induction into their lines. Of course, you have seen the special insulator assemblies the phone company uses for transposition of its own open-wire lines.

In Tierra del Fuego, the phone line across the island was just a single low galvanized steel wire with an earth return. This was about 50 miles long. But, there was no electrical power system line to interfere with it.

Under "Outside Plant Noise Causes", the phone installer`s handbook says:
"The basic source is generally high electric power system influence in combination with poor or marginal plant balance."

Twisting 300-ohm twin-lead has also been used to clear up the picture.

Best regards, Richard Harrison, KB5WZI

3237. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 19:35:37 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <dYuE9.2892$4j5.1706802@newssvr28.news.prodigy.com>
Source record: 130623

It may be less noticeable at this time of year if it has Christmas lights on
it ;-)

--
73,
Larry N8LP
www.telepostinc.com/n8lp.html

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:Io-cnYowe4XF9n-gXTWcrg@comcast.com...
> I think you guys hit in on the nose. I worked an SSB QRP station in the UK
> the other day. He had a really good signal - antenna was a TH11...
>
> BTW is twisted pair any less visible than RG58, or preferably - LMR190?
>
> Tam/WB2TT
> "Richard Clark" <kb7qhc@attbi.com> wrote in message
> news:5fl4uu0evapg4d0hsods0sonfqn0jmu9n9@4ax.com...
> > On Mon, 25 Nov 2002 14:17:07 GMT, cprstn54zz@att.net (Ken) wrote:
> >
> > >On 25 Nov 2002 05:36:28 -0800, jim.bolinger@lintek.aeroflex.com (JLB)
> > >wrote:
> > >> PVC insulated telephone cable does not like RF at more than a
> > >>few watts. Been there done that.
> > >
> > >Does this mean 7 MHz, 5-watt QRP is OK on network-quality twisted
> > >pair? What is the impedance?
> > >
> > >There is no point in doing this unless it has lower attenuation than
> > >RG-174. Does it?
> > >
> > >Ken KC2JDY
> > >
> > Hi Ken,
> >
> > Your last comment is the most telling. One of the most oblivious
> > offerings I've heard is that QRP, being a lower wattage service,
> > needn't worry about sub-par components because the power lost is
> > trivial.
> >
> > If QRP needs ANYTHING, it is premium components and maximal
> > efficiency.
> >
> > 73's
> > Richard Clark, KB7QHC

>
>
>

3238. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 19:44:20 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <rgu4uu8q1dv7164tf4uacdt5kjm779gt38@4ax.com>
Source record: 130626

On Thu, 05 Sep 2002 14:33:37 GMT, "VE9SRB" <srbest@att.net> wrote:

> lets use the following FOM calculation to
>evaluate the designs:
>
>FOM = 0.4 * R + 0.4* B + 0.2 * E
>
>where
>
>R = 1 - [(36 - Rr)/36]
>
>B = 1 - [(24 - BW)/24]
>
>E = 1 - [(98.9 - Eff)/98.9]
>
>Rr is the antenna radiation resistance.
>
>BW is the lossless antenna bandwidth determined from the matched SWR 1/2
>power points (SWR = 5.282:1). The 1/2 power matched SWR bands are
>determined with respect to the antenna's resonant frequency and resonant
>radiation resistance (ZO for the SWR calculation is equal to Rr). BW is
>expressed in %.
>
>Eff is the antenna efficiency in % determined at the self-resonant frequency
>from the difference in Rr and total resistance.
>
>For the purposes of this exercise, the antennas must be in a monopole
>configuration over an infinite ground plane. With the exception of the
>first base segment (bottom of feed point), no wire section can touch the
>ground plane. The antenna must be base fed at the closest segment to the
>ground plane. The antenna must be constructed with a single continuous
>piece of wire. The antenna wire diameter must be 0.5 mm. Radiation
>resistance is determined at the antenna feed point. The antenna must fit
>within a volume of 6 cm height and a cylindrical radius of 1.5 cm. The
>antenna must be self-resonant at 350 MHz. The self-resonant frequency is
>determined in the situation where the antenna is lossless.
>
>Geometry and total wire length are the variables. Maximize FOM at 350 MHz.
>
>Steve VE9SRB
>

Hi Steve,

Just checking in to notice you put more effort into the description above than has been expended in responding directly to it.

Let's see now, according to the time stamp:
>Thu, 05 Sep 2002
Genetic Optimization has had something like 1000 hours to work this out and still nothing to offer. I would add, no amount of future hours will change this outcome.

How many parties have you been invited to where the Host bars the door three months before? ;-)

At this late date, I am sure someone will think to blame the turkey. [this inclusion is for the sake of the ambiguously challenged - translations from Shakespeare available on request]

73's
Richard Clark, KB7QHC

3239. Re: Reg vs Smith

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 21:08:26 UTC
From: k7itm@aol.com
Message-ID: <3200347.0211251308.3abb8492@posting.google.com>
Source record: 130628

Hi Reg,

We should say, I suppose, that I use Smith charts to display results, because they help me visualize what is happening. I can see a lot at a glance. In general, I don't use the chart as a calculating tool, like a slide rule. Instead, I use processor-based calculating tools to do the calculations. One of those happens to be tied up with a typical Smith chart display, but the calculation it does includes, for example, line loss. Although it displays its results on a Smith chart (which I happen to appreciate), the results are also available in tabular form to way more digits of precision than I'd ever be able to use.

Alas, that program does not do everything that I might like. However, it's never been difficult for me to use other tools to handle those cases. The other tools include a programmable calculator, Excel, Scilab and Mathcad, all of which easily handle complex math, and even Excel, which also handles complex math, albeit clumsily.

The assumption of Zo real tends to work OK for what I do, but again, use of the proper program will handle all that nicely for me when I do need to consider complex (and frequency-dependent) Zo. It's certainly possible to normalize the Smith chart to a non-real impedance, though I belive that changes the shape of the lines we normally consider "constant reactance" and "constant resistance". (After all, if you multiply a resistance by a complex number, it becomes reactive... For example, with real Zo, if you add a pure resistance, the reflection coefficient stays real and you just move along the x-axis of a Smith chart. But if you add a resistance to a complex Zo, the reflection coefficient is complex, and that's represented by a point off the Smith chart x-axis.)

So in summary, I agree strongly with letting my computing tools handle the drudgery, I just like graphical displays of the results that help me see the big picture. _Sometimes_, even often, the Smith chart is the right visualization tool for me, but sometimes it isn't (and I appreciate that it may NEVER be for some people, too). However, the graphing capabilities of the various programs make it reasonably easy for me to display the results in a way that helps me out when Smith isn't the right answer.

I'll defer to others' inputs on the stub electrical length question.

Cheers,
Tom

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<aroumbdng1@venus.btinternet.com>...
> > I'm interested in a wide variety of
> > tasks, including matching at multiple frequencies, being able to use
> > lumped as well as transmission line components, being able to
> > understand (visualize) the degree of match over a band of frequencies,
> > and designing pass-reject filters. I'm sometimes also interested in
> > the effects of line loss, generally when the impedance ratio is high.
> > For my work, it's not so much a "vs" as you put in your subject line,
> > as it is another tool to join Smith and Gates and some others, each to
> > be chosen when appropriate.
> ==========
> Tom,
> Do you use Smith charts to design/analyse transformers with high impedance
> ratios where line loss can have a significant effect on line dimensions? I
> would have thought the complexity was well beyond Smith chart capabilies
> although I admit never to have used one in anger. There is, of course, the
> inevitable Smith chart error which assumes Zo to be purely resistive.
>
> I have a program which does the same job as STUMATCH but with a lot more
> thrown in. It uses exact classical trans-line calculations to take line loss
> fully into account. But it is much more complicated to use because line
> dimensions and frequency must be included in the input data. I havn't put
> it my website because its complexity detracts from its usefulness for the
> majority of stub and similar -line designers of which I assume there are not
> very many anyway. From what you say I will tidy it up and put it on the
> website.
>
> From a line constuction point of view, how close an approximation to working
> line length is acheived by adding to the computed length half the conductor
> spacing ? c/c, o/c ?
> ---
> Reg, G4FGQ

3240. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 21:19:40 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211251319.f04f364@posting.google.com>
Source record: 130629
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

Bill M <""exray\"@n-o- .caribe.net> wrote in message
> > I agree that 5wpm isn't all that tough for many people, but learning technical
> > competency with a REAL technical exam would be a better allocation of time
> > for newbies. Exclusive clubs based upon anachronisms isn't helpful. Exclusive
> > clubs based upon competency, public service and even creating a larger
> > 'technical' gene pool isn't a perfect thing, but much more socially justifiable than
> > 'secret handshakes' like Morse code.
> >
> > John
>
> That description of the Code fits the outsider viewpoint exactly. I'd
> guess that more than half of the new 5 word-per-minuters cannot copy 5
> wpm so there's hardly a secret society mentality.

Secret handshake....I had a good laugh over that one. Good
grief...Nothing has ever been secret about morse code. And the funny
part is we hams had nothing to do with implementing a code test. Also,
the license exams are not "know everything or else" types of tests.
They are just meager entrance exams. The usual ham learns much more
AFTER he gets a ticket, not before. Also, it takes many years to learn
all that can be learned about radio, or whatever else related to the
hobby. If thats even possible. I've been farting with this crap for 31
years, and I've still got a long way to go in order to even think I
might know all I need to know. The reality is most will never catch
up. Same with computers, and coding. I've done quite a bit of software
work in regard to flight sims over the years. If I drop out and rest
just for a few months, I fall so far behind the "envelope" that it's
hard to catch up again. The technology progresses that fast. It
progresses almost weekly. When I took my ham test, code was a non
issue. It was part of the test, and you learned it if you wanted a
ticket. Pretty simple really. If they drop the code test totally in
the future, fine. But until then, a 5 wpm test is required, and
whining about it here is not going to make it go away. Sheesh...It
wasn't long ago that 13 and 20 wpm were required. The code whiners
should count their blessings...To me, 5 wpm is no-code for all
practical purposes. It's too slow to be of much use on the air. :/
MK

3241. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 21:31:16 UTC
From: Bibby <bibby@attbi.com>
Message-ID: <EEwE9.115427$WL3.49846@rwcrnsc54>
Source record: 130630

Richard, I also was wondering whether I had missed the outcome of this challenge. What has never been clear to me is whether the same FOM has been, or will be, used on other designs? Surely there has to be a baseline somewhere? Is Steve providing this?

Malcolm, W1/GW3NJY

"Richard Clark" <kb7qhc@attbi.com> wrote in message news:rgu4uu8q1dv7164tf4uacdt5kjm779gt38@4ax.com...
> On Thu, 05 Sep 2002 14:33:37 GMT, "VE9SRB" <srbest@att.net> wrote:
>
> > lets use the following FOM calculation to
> >evaluate the designs:
> >
> >FOM = 0.4 * R + 0.4* B + 0.2 * E
> >
> >where
> >
> >R = 1 - [(36 - Rr)/36]
> >
> >B = 1 - [(24 - BW)/24]
> >
> >E = 1 - [(98.9 - Eff)/98.9]
> >
> >Rr is the antenna radiation resistance.
> >
> >BW is the lossless antenna bandwidth determined from the matched SWR 1/2
> >power points (SWR = 5.282:1). The 1/2 power matched SWR bands are
> >determined with respect to the antenna's resonant frequency and resonant
> >radiation resistance (ZO for the SWR calculation is equal to Rr). BW is
> >expressed in %.
> >
> >Eff is the antenna efficiency in % determined at the self-resonant frequency
> >from the difference in Rr and total resistance.
> >
> >For the purposes of this exercise, the antennas must be in a monopole
> >configuration over an infinite ground plane. With the exception of the
> >first base segment (bottom of feed point), no wire section can touch the
> >ground plane. The antenna must be base fed at the closest segment to the
> >ground plane. The antenna must be constructed with a single continuous
> >piece of wire. The antenna wire diameter must be 0.5 mm. Radiation
> >resistance is determined at the antenna feed point. The antenna must fit
> >within a volume of 6 cm height and a cylindrical radius of 1.5 cm. The
> >antenna must be self-resonant at 350 MHz. The self-resonant frequency is

> >determined in the situation where the antenna is lossless.
> >
> >Geometry and total wire length are the variables. Maximize FOM at 350
MHz.
> >
> >Steve VE9SRB
> >
>
> Hi Steve,
>
> Just checking in to notice you put more effort into the description
> above than has been expended in responding directly to it.
>
> Let's see now, according to the time stamp:
> >Thu, 05 Sep 2002
> Genetic Optimization has had something like 1000 hours to work this
> out and still nothing to offer. I would add, no amount of future
> hours will change this outcome.
>
> How many parties have you been invited to where the Host bars the door
> three months before? ;-)
>
> At this late date, I am sure someone will think to blame the turkey.
> [this inclusion is for the sake of the ambiguously challenged -
> translations from Shakespeare available on request]
>
> 73's
> Richard Clark, KB7QHC

3242. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 21:33:51 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE2973F.ADC34A26@ieee.org>
Source record: 130631
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

Mark Keith wrote:
> Secret handshake....I had a good laugh over that one. Good
> grief...Nothing has ever been secret about morse code.

Yep it has, Mark. W5DXP and W5FQC were the only individuals in
Madisonville High School in the early 50's who knew Morse Code.
We used it quite often to send secret messages that our teachers
couldn't understand and hardly noticed. It was particularly useful
during exams and double dates.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3243. 6m beam booklet/dimensions for M2 6M7 beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 21:41:34 UTC
From: John <john@vhfdx.idps.co.uk>
Message-ID: <3de2984c_3@mk-nntp-1.news.uk.worldonline.com>
Source record: 130632

Hello, can someone please supply me with a copy of the M2 6M7 booklet. I have just got one a broken antenna second-hand without the instruction booklet and
need a copy to repair it and set it up correctly. I already have the 6M7JHV info thanks and have found M2 do not respond to emails for some reason.

Scan by email is okay.

Cheers

john

3244. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 21:52:39 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aru636dqa1@venus.btinternet.com>
Source record: 130633

"Bill Ogden" wrote -
> The advantage of the half-sloper (over a vertical with gamma matches)
would seem
> to be that the high-current point is elevated and will, we assume, radiate
> better.
==========
Bill, please forgive the intrusion, but the idea that the high current
portion of an antenna wire does most of the radiating is a popular
misconception propagated by Old Wives and technical editors. It is equally
illogical that most of the radiation occurs from the ends of an antenna wire
because that is where the highest voltages occur.

Whichever "Alice in Wonderland" argument is believed can lead the believer
up the proverbial garden path when it comes to antenna design. Marconi, a
contemporary of Lewsis Carroll, knew better.

Reg, G4FGQ

3245. Re: Modeling a Wire Fence in EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 22:09:19 UTC
From: Jerry Flanders <SeeSignature@below.com>
Message-ID: <fn65uuc37tm6dj4m3h718csgb0f124iulv@4ax.com>
Source record: 130634

You might want to consider using a different tool for this. 4nec2 includes "BUILD", which can apparently generate the "gridded surface" you are after, then can handle the additional segment load required to evaluate it. I haven't used it for this particular shape, but BUILD's "patch" generating feature looks like it will do the job. 4nec2 is free.

Another tool that could probably handle the segment load is MultiINEC with generic NEC as the engine (needs EXCEL, 97 or better, but is also free), and MultiNEC will accept the NEC output from BUILD as well.

What conductivity will you use for galvanized fence wire? I couldn't find any info on conductivity a while back when I was looking.

Jerry W4UK

On Sun, 24 Nov 2002 16:37:06 -0800, Mike <scifiguy at starband dot net> wrote:

>Having read the conventional wisdom that wire fences should be
>grounded and used as additional counterpoise for ground plane
>antennas, I decided to try to model this in EZNEC 3.0. I have the
>regular version, so I'm limited to 500 segments. How can I make a
>simplified model of a 4 foot high by 100 foot long section of 2x4 inch
>wire mesh that is around 400 segments or less?
>
>Thanks for any suggestions.
>
>--Mike

--
To reply, remove space in je flanders@comcast.net

3246. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 22:10:04 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DE29FBC.344F77A3@cwis.net>
Source record: 130635

Richard,
Really, did you expect anything else?
Doc

3247. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 22:23:00 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <qk85uu0um84f91ir9i6o1c2seausva6urf@4ax.com>
Source record: 130636

On Mon, 25 Nov 2002 21:31:16 GMT, "Bibby" <bibby@attbi.com> wrote:

>Richard, I also was wondering whether I had missed the outcome of this
>challenge. What has never been clear to me is whether the same FOM has
>been, or will be, used on other designs? Surely there has to be a baseline
>somewhere? Is Steve providing this?
>
>Malcolm, W1/GW3NJY
>

Hi Malcom,

As I pointed out, Steve has done far more work as the invitee to this debate than the host. However, that is par for the course and my posting was merely a jibe pointing out yet another lapse in a self imposed deadline. If you cannot meet your own agenda, you sure can't meet anyone else's.

73's
Richard Clark, KB7QHC

3248. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 22:23:59 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <dq85uu0kc006u09esoe3n4beh0v7g62ql2@4ax.com>
Source record: 130637

On Mon, 25 Nov 2002 16:10:04 -0600, 'Doc <w5lz@cwis.net> wrote:

>
>
>Richard,
> Really, did you expect anything else?
> Doc

Shirley,

You jest. ;-)

73's
Richard Clark, KB7QHC

3249. Re: Simple horizontal antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 22:24:40 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <IqxE9.15590$ID2.1879869@twister.southeast.rr.com>
Source record: 130640

Hi Steve,

A small balun (9 turns of RG-8X on a liter Pepsi bottle worked here to keep
the hash off the computer. Connect between the balanced line and the radio.

Good luck,

73, Bill, W4WNT

<no.sp@m.here> wrote in message
news:zBoE9.569$FZ.71871@newsfep1-win.server.ntli.net...
> Hi,
>
> I've just put the paperwork in the post to get my HF callsign - and the
> only thing holding me back is the lack of an antenna system.
>
> I've measured the length of my garden and can achive a maximum of 130
> feet straight-line run. There seems to be lots of options around for a
> multiband solution - G5RV, Zepp, straight-dipole, Windom,etc. and I'm
> somewhat confused as to the best solution (bearing in mind I want to
> homebrew the antenna).
>
> I already have a 1/2 size G5RV but do not intend to put this up as the
> balanced feeder is in poor condition - however the insulators,etc. are
> fine and I will recycle these.
>
> Looking through previous posts, lots of people suggest constructing a
> half wave dipole of the longest length possible. And the feeding that
> with balanced feeder back to the ATU? Assuming this is the way forward -
> Can I ask:-
>
> a) What impedence should the balanced feeder be? I seem there is 450 and
> 600 ohm versions?
>
> b) Does the length of balanced feeder matter?
>
> c) Where the feeder meets the dipole - Do I need any form of matching?
>
> d) If I wish to bring coax into the house - Do I need a balun to tie
> into the balanced feeder?
>
> e) I have have quite alot of computer gear which is always powered up.
> Given this, is it better to reduce the lenght of balanced feeder +
> increase the coax length to reduce local interference pickup.
>

> f) I have a long length of multi-stranded PVC coated wire. Is it OK to
> use this for the antenna? I appreciate its tensile strenth isn't ideal
> but I want to use the materials I already have to hand.
>
> Sorry if these are rather obvious questions which have been asked before
> - I did check through the archives before making this post.
>
> Thanks for any advice offered,
>
> 73s Steve.
>

3250. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 22:29:39 UTC
From: Bibby <bibby@attbi.com>
Message-ID: <nvxE9.115662$WL3.48471@rwcrnsc54>
Source record: 130638

To my original question - how is/are the design(s) to be evaluated?

Malcolm, W1/GW3NJY

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:qk85uu0um84f91ir9i6o1c2seausva6urf@4ax.com...
> On Mon, 25 Nov 2002 21:31:16 GMT, "Bibby" <bibby@attbi.com> wrote:
>
> >Richard, I also was wondering whether I had missed the outcome of this
> >challenge. What has never been clear to me is whether the same FOM has
> >been, or will be, used on other designs? Surely there has to be a
baseline
> >somewhere? Is Steve providing this?
> >
> >Malcolm, W1/GW3NJY
> >
>
> Hi Malcom,
>
> As I pointed out, Steve has done far more work as the invitee to this
> debate than the host. However, that is par for the course and my
> posting was merely a jibe pointing out yet another lapse in a self
> imposed deadline. If you cannot meet your own agenda, you sure can't
> meet anyone else's.
>
> 73's
> Richard Clark, KB7QHC

3251. Re: Simple horizontal antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 22:41:37 UTC
From: k9sqg@aol.com
Message-ID: <20021125174137.03421.00000476@mb-ma.aol.com>
Source record: 130639

Steve,

If it were me, I'd run a "dipole" as long and as high as possible and feed it directly with open wire feedline. Use a link coupled antenna tuner or double balanced design; a tuner with a balun is an option but not as preferable as the first two. Impedance of the feedline is unimportant here. For multiband operation, the impedance will vary widely from band to band so it will be fine some places and not others regardless of what impedance you select. High SWR will have little loss in this instance. Length of the feedline can be considered non-critical although a limited range ATU might be unhappy on some bands necessitating the addition of some added feedline. I don't have a computer, I use a Macintosh instead, and there is no noise pickup and the Mac is just 2 feet away from the feedline.

Best of luck. If you'd like to discuss it further, just send me your non-spam email address.

73s,

Evan

3252. Re: Butternut mounting ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 23:11:22 UTC
From: Ted Sloan <tedsloan@dsl.pipex.com>
Message-ID: <67b5uus7u4o9c1hqmm458b6e4cn0b0viaa@4ax.com>
Source record: 130641

On Mon, 25 Nov 2002 15:09:30 +0100, "Mogens" <petsen@lazy.dk> wrote:

>
>Or does any mount the HF6V on a little post, so that the ground post is just
>above the surface ?
>
>
>Mogens
>
>
>
Yes, I did that when I used this antenna at my last house. I drove an
aluminium pipe (can not recall the lenght) into the ground and
strapped the bottom of the BUTTERNUT on to that. They were a "special"
strap that a friend in industry gave to me. They held the antenna very
well. I also guyed this antenna with light, green garden twine that I
got from a garden centre. That kept it upright and there was no sign
of it bending over a period of eight years.

Mounting it in this fashion allowed me to unstrap it and I had the
complete antenna when I moved house. In just hammered the redundant
ground pipe further into the soil until it disappeard !

73 Ted GI4AHP

3253. Re: Simple horizontal antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 23:15:18 UTC
From: no.sp@m.here
Message-ID: <3DE2AF06.5020206@m.here>
Source record: 130646

Hi again,

Thanks for everyones replies - Good to see a united concensus.

I did a bit more trawling on the net and found this useful article:-
http://www.hamoperator.com/antenna_shootout.html (with reference to
flatop antenna).

I intend to follow the instructions for this (although I will initially
start with open feeder all the way to the ATU). This design (and
everyone elses) seem v.similar to the G5RV - What is it about the G5RV
which makes it different?

Thanks for everyones comments so far - I'll report back with my findings
once I get it constructed (and I've received the new callsign!),

73's

Steve

3254. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 23:16:41 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <d8a5uuo8n3j0mvvf6ucr8g02i7qga0jgjc@4ax.com>
Source record: 130642

On Mon, 25 Nov 2002 22:29:39 GMT, "Bibby" <bibby@attbi.com> wrote:

>To my original question - how is/are the design(s) to be evaluated?
>
>Malcolm, W1/GW3NJY
>

Hi Malcom,

The plan was for Steve to submit an antenna and the challenger was to "improve" it with genetic software. Both the original and then the modified one were to compared on the basis of the FOM agreed upon before the modification was performed. What I posted was Steve's criteria for the FOM. That specification was offered to him as the challengee to define.

The problem here is that this challenger is a business. That business is not going to reveal anything but the "results"; you are not going to see that product file (owned as an IP by and for the company). This has been a consistent behavior by this business for a number of years. In fact this challenge is in response to a similar fated challenge this time two years ago. Steve submitted 6 antenna designs for our consideration that thoroughly trounced the "fractal champion" on both their native merits, and even more so on the champion's terms of FOM (something like 10:1).

Not one byte of model file nor wire list has been offered by the failed champion against Steve's 6 successful challengers since that time, and yet this company maintains Steve lost and that some other guy (curiously an employee of the company) won instead. No model was offered for our review then either.

So, that gives you more than you cared to know, and may have not answered your question. In that regard, I hesitate to suggest you seek an answer from the source. Instead, the archive is more sure, but equally bloated with editorialization such as mine. If you do a search, be sure to use the boolean NOT SUE, so that you skip over that business' legal threats to the Ham membership.

73's
Richard Clark, KB7QHC

3255. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 23:34:07 UTC
From: Bibby <bibby@attbi.com>
Message-ID: <PryE9.116201$WL3.50137@rwcrnsc54>
Source record: 130643

Thanks for the update, Richard. I will stand-by and observe.

Malcolm, W1/GW3NJY

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:d8a5uuo8n3j0mvvf6ucr8g02i7qga0jgjc@4ax.com...
> On Mon, 25 Nov 2002 22:29:39 GMT, "Bibby" <bibby@attbi.com> wrote:
>
> >To my original question - how is/are the design(s) to be evaluated?
> >
> >Malcolm, W1/GW3NJY
> >
>
> Hi Malcom,
>
> The plan was for Steve to submit an antenna and the challenger was to
> "improve" it with genetic software. Both the original and then the
> modified one were to compared on the basis of the FOM agreed upon
> before the modification was performed. What I posted was Steve's
> criteria for the FOM. That specification was offered to him as the
> challengee to define.
>
> The problem here is that this challenger is a business. That business
> is not going to reveal anything but the "results"; you are not going
> to see that product file (owned as an IP by and for the company).
> This has been a consistent behavior by this business for a number of
> years. In fact this challenge is in response to a similar fated
> challenge this time two years ago. Steve submitted 6 antenna designs
> for our consideration that thoroughly trounced the "fractal champion"
> on both their native merits, and even more so on the champion's terms
> of FOM (something like 10:1).
>
> Not one byte of model file nor wire list has been offered by the
> failed champion against Steve's 6 successful challengers since that
> time, and yet this company maintains Steve lost and that some other
> guy (curiously an employee of the company) won instead. No model was
> offered for our review then either.
>
> So, that gives you more than you cared to know, and may have not
> answered your question. In that regard, I hesitate to suggest you
> seek an answer from the source. Instead, the archive is more sure,
> but equally bloated with editorialization such as mine. If you do a
> search, be sure to use the boolean NOT SUE, so that you skip over that
> business' legal threats to the Ham membership.
>

> 73's
> Richard Clark, KB7QHC

3256. FS: Diamond SRH-519 & SRH-805 HT Antennas SMA Mount. 144/440 Dual Band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 23:41:25 UTC
From: frank@damato.com
Message-ID: <1276490d.0211251541.fffde94@posting.google.com>
Source record: 130644
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.antenna

Selling each antenna for $20 (includes shipping price). Antenna's are brand new, still in original yellow plastic cases. I have no need for them. Received them in a swap. you can see a picture of them at www.frankdamato.com/diamond.jpg

I Accept Paypal as Payment

The Diamond SRH-519 is an HT antenna for 2 meters and 440 MHz. It is 8.5 inches (21 cm) tall. This flexible antenna is black. Gain is a 3 dBi and it can handle up to 10 watts. This antenna terminates to a 50 ohm SMA. It is also very effective as a receive antenna for these bands: 150, 300, 450 and 800 MHz.

SRH-805 Diamond 2m/70cm SMA Low Profile Helical * Tx: 144, 430 & 1200MHz * Rx: 150/300/450/800/900MHz * 10W Max power handling * 1.75 inches (4.5cm long) * SMA fitting
Extremely low profile, yet provides transmit (Tx) capability on three bands and offers useful wideband reception, also for use with scanners. Suitable for Horas, Standards and Yaesu.

E-mail me with questions at frank@damato.com

3257. Re: Simple horizontal antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 23:42:45 UTC
From: no.sp@m.here
Message-ID: <SzyE9.1132$fX5.1810@news13-win.server.ntlworld.com>
Source record: 130647

Hi again,

Thanks for everyones replies - Good to see a united concensus.

I did a bit more trawling on the net and found this useful article:-
http://www.hamoperator.com/antenna_shootout.html (with reference to
flatop antenna).

I intend to follow the instructions for this (although I will initially
start with open feeder all the way to the ATU). This design (and
everyone elses) seem v.similar to the G5RV - What is it about the G5RV
which makes it different?

Thanks for everyones comments so far - I'll report back with my findings
once I get it constructed (and I've received the new callsign!),

73's

Steve

3258. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-25 23:50:27 UTC
From: tdonaly@aol.com
Message-ID: <20021125185027.06121.00000132@mb-fq.aol.com>
Source record: 130645

Richard Clark wrote,
>
>I have worked for many, many companies. I am a consultant to Venture
>Capitalists and do research into technical and scientific feasibility
>of new products, ideas and so on. I have made presentations to at
>least $100 million in funds managers seeking projects. The fields I
>have performed R&D (actual construction, not just imaginings) in
>include Avionics, Medical Applications, Pure Research, Wood and Paper,
>Superconductivity, Telecommunications, Power grid, Instrumentation,
>WWW, Electronic and Physical Standards, Nanotechnology, RF
>communications, Environmental risk assessment, Nuclear contamination
>control, and on and on. All with only a degree in English (if you
>read this board more, you would find those who've done less and hold
>advanced degrees find my Shakespeare tedious). I've also spent a
>number of years teaching electronics (component level) and RF
>communications systems to advanced Technicians and Engineers. As that
>was in the Navy, my students had to put up with my Shakespeare (Rank
>Hath Its Privilege), but then I had a higher calibre of student who
>could respond in kind rather than gripe like a malingerer.
>
>73's
>Richard Clark, KB7QHC
>

LEAR. "Pray, do not mock me:
I am a very foolish fond old man,
Fourscore and upward, not an hour more nor less;
And, to deal plainly,
I fear I am not in my perfect mind."

From King Lear, act IV, scene VII.

Tom Donaly, KA6RUH

3259. Re: Modeling a Wire Fence in EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 00:26:06 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <fjd5uuobqpr3gempn7um1oee53aegrpuub@4ax.com>
Source record: 130648

On Mon, 25 Nov 2002 22:09:19 +0000, Jerry Flanders
<SeeSignature@below.com> wrote:

|You might want to consider using a different tool for this. 4nec2
|includes "BUILD", which can apparently generate the "gridded surface"
|you are after, then can handle the additional segment load required to
|evaluate it. I haven't used it for this particular shape, but BUILD's
|"patch" generating feature looks like it will do the job. 4nec2 is
|free.
|
|Another tool that could probably handle the segment load is MultiINEC
|with generic NEC as the engine (needs EXCEL, 97 or better, but is also
|free), and MultiNEC will accept the NEC output from BUILD as well.
|
|What conductivity will you use for galvanized fence wire? I couldn't
|find any info on conductivity a while back when I was looking.

Most of the modeling programs include Zinc for wire loss.

3260. Re: Simple horizontal antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 00:33:54 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <arufhi$s4r$1@helle.btinternet.com>
Source record: 130649

Evan, do you ever feel guilty about recommending a random length dipole in conjunction with a random length open-wire feedline with any big Zo, plus a good tuner?

Don't you think it deprives newcomers of all the happy days, months, years which you probably experienced messing about, experimenting, with the other inumerable and less efficient cominations of wires, lines, loading coils, radials, baluns and tuners?

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========
"K9SQG" wrote

> Steve,
>
> If it were me, I'd run a "dipole" as long and as high as possible and feed it
> directly with open wire feedline. Use a link coupled antenna tuner or double
> balanced design; a tuner with a balun is an option but not as preferable as the
> first two. Impedance of the feedline is unimportant here.

3261. Re: Simple horizontal antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 00:33:55 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <arufhj$s4r$2@helle.btinternet.com>
Source record: 130650

> What is it about the G5RV
> which makes it different?
>
==========

There's no difference except that on most bands it is 1 or 2 dB less efficient than its multiband competitors. It's that length of coax which does it. Dump the coax and it will behave normally. But you will no longer have a G5RV.

Reg, G4FGQ

3262. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 01:09:03 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <4ai5uucjnv09gii38cnce1cu0uqlql3mip@4ax.com>
Source record: 130651

On Mon, 25 Nov 2002 23:34:07 GMT, "Bibby" <bibby@attbi.com> wrote:

>Thanks for the update, Richard. I will stand-by and observe.
>
>Malcolm, W1/GW3NJY

Hi Malcom,

Sure. Take a look at:
http://www.qsl.net/kb7qhc/antenna/fractal/index.htm
for hundreds of pages of analysis in the field of fractal antennas.

73's
Richard Clark, KB7QHC

3263. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 01:21:07 UTC
From: "Thomas C. Sefranek" <WA1RHP@ARRL.net>
Message-ID: <70AE9.928$yy.231291@newsread1.prod.itd.earthlink.net>
Source record: 130652

Richard Clark <kb7qhc@attbi.com> wrote in message
news:dq85uu0kc006u09esoe3n4beh0v7g62ql2@4ax.com...
> On Mon, 25 Nov 2002 16:10:04 -0600, 'Doc <w5lz@cwis.net> wrote:
>
> > >
> > >
> > >Richard,
> > > Really, did you expect anything else?
> > > Doc
>
> Shirley,
>
> You jest. ;-)

I humbly point out that Shirley is NOT in the same area as Belmont, MA!

>
> 73's
> Richard Clark, KB7QHC

--
*
| __O Thomas C. Sefranek WA1RHP@ARRL.net
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

3264. Re: Modeling a Wire Fence in EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 01:28:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uu5jibk47dvs16@corp.supernews.com>
Source record: 130653

You'll find that worrying about the conductivity of the fence wire
(which will be that of zinc, assuming the coating is reasonably thick)
is a waste of time. With as much surface area as the fence has, the loss
will be negligible.

Roy Lewallen, W7EL

Wes Stewart wrote:
> On Mon, 25 Nov 2002 22:09:19 +0000, Jerry Flanders
> <SeeSignature@below.com> wrote:
>
> |You might want to consider using a different tool for this. 4nec2
> |includes "BUILD", which can apparently generate the "gridded surface"
> |you are after, then can handle the additional segment load required to
> |evaluate it. I haven't used it for this particular shape, but BUILD's
> |"patch" generating feature looks like it will do the job. 4nec2 is
> |free.
> |
> |Another tool that could probably handle the segment load is MultiINEC
> |with generic NEC as the engine (needs EXCEL, 97 or better, but is also
> |free), and MultiNEC will accept the NEC output from BUILD as well.
> |
> |What conductivity will you use for galvanized fence wire? I couldn't
> |find any info on conductivity a while back when I was looking.
>
> Most of the modeling programs include Zinc for wire loss.

3265. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 01:29:16 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <lni5uukq85crm2d0h113pljnidleqobmvm@4ax.com>
Source record: 130654

On 25 Nov 2002 23:50:27 GMT, tdonaly@aol.com (Tdonaly) wrote:

>>
>
>LEAR. "Pray, do not mock me:
>I am a very foolish fond old man,
>Fourscore and upward, not an hour more nor less;
>And, to deal plainly,
>I fear I am not in my perfect mind."
>
>From King Lear, act IV, scene VII.
>
>Tom Donaly, KA6RUH
>

Hi Tom,

Well, if the truth be told, I'm not nearly as fond of Lear as I am of
Sir Walter Raleigh, particularly "The Lie":

,,,
"Tell physic of her boldness;
Tell skill it is pretension;
Tell charity of coldness;
Tell law it is contention.
And as they do reply,
So give them still the lie.
...
"Tell arts they have no soundness,
But vary by esteeming;
Tell schools the want profoundness,
And stand too much on seeming.
If arts and schools reply,
Give arts and schools the lie."
,,,

There are several who post here who aspire to these jousts at
comfortable conformity, but they wilt on the occasion. (maybe a touch
of Oscar Wilde in that)

Not yet to threescore, but still an arrogant fool. ;-)

73's
Richard Clark, KB7QHC

3266. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 01:36:02 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <%dAE9.60590$e%.543219@news20.bellglobal.com>
Source record: 130655

"Richard Clark"
> Genetic Optimization has had something like
> 1000 hours to work this out and still nothing
> to offer. I would add, no amount of future
> hours will change this outcome.

The wholesale price of bananas is up slightly over the past few
weeks....perhaps there's hope.

3267. Re: Reflexions at the end of a properly terminated line.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 02:00:06 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <zAAE9.60613$e%.551651@news20.bellglobal.com>
Source record: 130656

"Gilbert Mouget"
> One transmitter Zout = 50 ohms
> two coaxial cables 100 ohms in parallel
> and properly terminated with one Z = 50 ohms.
>
> If you shift the phase 180° in one cable, ie make
> one cable lambda/2 longer, the load behave like
> a mirror and energy is reflected back to the transmitter.

Before you reconnect your lambda/2 longer cable, reverse the connections of that cable (hot <-> gnd) at the load end. There ya go. Back to normal.

The mind boggles...

PS: Good one... :-)

3268. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 02:16:32 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <4QAE9.31767$hK4.2756688@bgtnsc05-news.ops.worldnet.att.net>
Source record: 130657

> Hi Steve,
>
> Just checking in to notice you put more effort into the description
> above than has been expended in responding directly to it.
>
> Let's see now, according to the time stamp:
> >Thu, 05 Sep 2002
> Genetic Optimization has had something like 1000 hours to work this
> out and still nothing to offer. I would add, no amount of future
> hours will change this outcome.
>
> How many parties have you been invited to where the Host bars the door
> three months before? ;-)
>
> At this late date, I am sure someone will think to blame the turkey.
> [this inclusion is for the sake of the ambiguously challenged -
> translations from Shakespeare available on request]
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,

No response as of yet. I expect that the GO or GA converged to an unexpected result, which will prompt a response that the FOM is somehow flawed.

Either way, it really doesn't matter much. As Chip pointed out in a recent post, I have put some effort into debunking fractal antennas. Considering the formal responses to my work, the effort seems to be going quite well.

Steve

3269. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 02:19:29 UTC
From: anandnavaneeth@hotmail.com
Message-ID: <bc6bd131.0211251819.42472551@posting.google.com>
Source record: 130658

Hi,
That was indeed a big message. I appreciate you of telling me your expertise and other stuff. The balanced feeding doesnt need a ground plane and hence avoids unecessary current flow in the ground plane. This is one of the design requirements for mobile antennas. Loop antenna made of slot is what i meant by loop slot antenna. I dont know to publish pictures in the group. Kindly let me know.

bye.

3270. Re: 6m beam booklet/dimensions for M2 6M7 beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 02:23:19 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DE2DB15.8050106@tampabay.rr.com>
Source record: 130659

hey john
i would suggest giving them a telephone call i dont have to much faith
in emails with companies i have sent astron 2 emails asking them
something and have never gotten a reply from them either
so try a phone call to M2 they probably will have the info in there
files somewhere

John wrote:
> Hello, can someone please supply me with a copy of the M2 6M7 booklet. I
> have just got one a broken antenna second-hand without the instruction
> booklet and
> need a copy to repair it and set it up correctly. I already have the 6M7JHV
> info thanks and have found M2 do not respond to emails for some reason.
>
> Scan by email is okay.
>
> Cheers
>
> john
>
>

3271. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 02:25:37 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <BYAE9.31773$hK4.2758081@bgtnsc05-news.ops.worldnet.att.net>
Source record: 130660

"Bibby" <bibby@attbi.com> wrote in message
news:EEwE9.115427$WL3.49846@rwcrnsc54...
> Richard, I also was wondering whether I had missed the outcome of this
> challenge. What has never been clear to me is whether the same FOM has
> been, or will be, used on other designs? Surely there has to be a
baseline
> somewhere? Is Steve providing this?
>

Malcom,

My part in this "antenna optimization" challenge is in direct response to Chip's very public request for a debate on the reported merits of fractal geometry in antenna design. He "needed closure" on the issue. I suggested that the debate focus on a specific antenna design problem. My original suggestion was for Chip to use his GO/GA to optimize the performance properties of a small resonant antenna, given certain physical constraints. I would then compare the optimized design with some arbitrary geometry, using the same physical constraints. Chip requested a FOM before proceeding. I provided a FOM and now await his GO/GA design. The FOM is baselined or referenced to a resonant 1/4 WL monopole.

Steve VE9SRB

3272. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 02:55:15 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211251855.534fc71@posting.google.com>
Source record: 130661

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<3013-3DE2417B-302@storefull-2317.public.lawson.webtv.net>...
> Art, KB9MZ wrote:
> "When I made the claim it was because of numerous experiments that
> provided broad banding and I mean numerous."
>
> Confusing to me again. Art said the goal was frequency agility by easy
> tuning to discete frequencies across a wide spectrum rather than broad
> banding if I remember correctly.
>
> Best regards, Richard Harrison, KB5WZI

Richard this thread is broadbanding which pointed to broadening
the frquency span of a monobander, this I did by capacitive coupling
of the feed to the driven element.
The thread you are thinking of is where I have a combination of a
loop antenna and a dipole.I am presently making a variation of
that particular antenna which as I mentioned before is a mechanical
challenge.
The posting was to Wes who stated he was having a problem
modeling the broad band antenna which is the subject of
this thread,I felt I owed him an explanation. Your posting gave an
opening to the jackal, Clark, who immediatiatly took the oportunity
of baying at the moon. What I could have done was to send a private
E mail to Wes since it was he who mentioned the modeling problem,
but that would have left me open to serious charges by Clark of
lieing or other likewise charges
Hopefully that has cleared the matter for you and that I have also
nipped in the bud an attack against me again by Clark.
Sticking to the truth will always beat such a person even tho at
the time the admission was and is personally embarassing.
Best regards
Art
something like that

3273. Re: Modeling a Wire Fence in EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 03:01:02 UTC
From: Jerry Flanders <SeeSignature@below.com>
Message-ID: <3no5uu45g9duaaub54jqfkc0ne9604o4f7@4ax.com>
Source record: 130662

On Mon, 25 Nov 2002 17:26:06 -0700, Wes Stewart <n7ws@nowhere.com>
wrote:

>On Mon, 25 Nov 2002 22:09:19 +0000, Jerry Flanders
><SeeSignature@below.com> wrote:
>
>|You might want to consider using a different tool for this. 4nec2
>|includes "BUILD", which can apparently generate the "gridded surface"
>|you are after, then can handle the additional segment load required to
>|evaluate it. I haven't used it for this particular shape, but BUILD's
>|"patch" generating feature looks like it will do the job. 4nec2 is
>|free.
>|
>|Another tool that could probably handle the segment load is MultiINEC
>|with generic NEC as the engine (needs EXCEL, 97 or better, but is also
>|free), and MultiNEC will accept the NEC output from BUILD as well.
>|
>|What conductivity will you use for galvanized fence wire? I couldn't
>|find any info on conductivity a while back when I was looking.
>
>Most of the modeling programs include Zinc for wire loss.

I remember now - it was plain steel I needed, not galvanized. As you
pointed out, Zinc is listed in EZNEC.

Thanks

Jerry W4UK

--
To reply, remove space in je flanders@comcast.net

3274. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 03:04:11 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <f5p5uugp6spit7b95c4fvtc1dk69k6s45f@4ax.com>
Source record: 130663

On 25 Nov 2002 18:19:29 -0800, anandnavaneeth@hotmail.com (anand)
wrote:

>Hi,
> That was indeed a big message. I appreciate you of telling me your
>expertise and other stuff. The balanced feeding doesnt need a ground
>plane and hence avoids unecessary current flow in the ground plane.
>This is one of the design requirements for mobile antennas. Loop
>antenna made of slot is what i meant by loop slot antenna. I dont know
>to publish pictures in the group. Kindly let me know.
>
>bye.

Hi Anad,

OK, just reply to my address with your picture attached.

Loop slot antenna is still one I have to see.

73's
Richard Clark, KB7QHC

3275. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 03:37:40 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <uu5r45l4s08131@corp.supernews.com>
Source record: 130664

Or one may find " 'Tis a tale told by and idiot, full of sound and fury,
signifying nothing" may apply.

Macbeth Act 5 Scene 5

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Tdonaly" <tdonaly@aol.com> wrote in message
news:20021125185027.06121.00000132@mb-fq.aol.com...
> Richard Clark wrote,
> >
> >I have worked for many, many companies. I am a consultant to Venture
> >Capitalists and do research into technical and scientific feasibility
> >of new products, ideas and so on. I have made presentations to at
> >least $100 million in funds managers seeking projects. The fields I
> >have performed R&D (actual construction, not just imaginings) in
> >include Avionics, Medical Applications, Pure Research, Wood and Paper,
> >Superconductivity, Telecommunications, Power grid, Instrumentation,
> >WWW, Electronic and Physical Standards, Nanotechnology, RF
> >communications, Environmental risk assessment, Nuclear contamination
> >control, and on and on. All with only a degree in English (if you
> >read this board more, you would find those who've done less and hold
> >advanced degrees find my Shakespeare tedious). I've also spent a
> >number of years teaching electronics (component level) and RF
> >communications systems to advanced Technicians and Engineers. As that
> >was in the Navy, my students had to put up with my Shakespeare (Rank
> >Hath Its Privilege), but then I had a higher calibre of student who
> >could respond in kind rather than gripe like a malingerer.
> >
> >73's
> >Richard Clark, KB7QHC
> >
>
> LEAR. "Pray, do not mock me:
> I am a very foolish fond old man,
> Fourscore and upward, not an hour more nor less;
> And, to deal plainly,
> I fear I am not in my perfect mind."
>

> From King Lear, act IV, scene VII.
>
> Tom Donaly, KA6RUH
>
>
>
>

3276. Rohn Accessories

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 03:51:34 UTC
From: wjmilton@snip.net
Message-ID: <3de2ef22.34484936@news.snip.net>
Source record: 130665

I am looking for a new or used flat roof mount (FR25G) for Rohn 25G.
If you have one and care to sell it please state asking price.

thanks,
Walt, KA2NJF

3277. ROHN 25G ACCESSORIES

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 03:54:52 UTC
From: wjmilton@snip.net
Message-ID: <3de2f039.34764588@news.snip.net>
Source record: 130666

I am looking for a new or used flat roof mount (FR25G) for Rohn 25G.
If you have one and care to sell it please state asking price.

Thanks,
Walt, KA2NJF

3278. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 06:24:01 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <9l46uu0sipr1s27v81rs9bt8n50mml2jd0@4ax.com>
Source record: 130667

On Mon, 25 Nov 2002 22:37:40 -0500, "Fred Hambrecht Sr."
<w4jle@charter.net> wrote:

>Or one may find " 'Tis a tale told by and idiot, full of sound and fury,
>signifying nothing" may apply.
>
>Macbeth Act 5 Scene 5

Hi Fred,

Even here, that one is becoming stale. I especially enjoy Boswell.

From "Boswell's Life of Johnson"
"Boswell: 'But, Sir, does not Rousseau talk such nonsense?'
Johnson: 'True, Sir, but Rousseau knows he is talking nonsense,
and laughs at the world for staring at him.'"

We have our own pale imitations of Rousseau too. ;-)

73's
Richard Clark, KB7QHC

3279. Re: Simple horizontal antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 07:48:28 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0211252348.64a50e88@posting.google.com>
Source record: 130519

Hi Steve,
look at http://www.qsl.net/w5dxp/notuner.htm , it may be the solution for you.

73 de Ivan

3280. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 09:28:28 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <uu6flto6cnpoc6@corp.supernews.com>
Source record: 130520

'Tis the only one I know Richard, I may be the only person you know that can
give you the entire play from memory.

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:9l46uu0sipr1s27v81rs9bt8n50mml2jd0@4ax.com...
> On Mon, 25 Nov 2002 22:37:40 -0500, "Fred Hambrecht Sr."
> <w4jle@charter.net> wrote:
>
> >Or one may find " 'Tis a tale told by and idiot, full of sound and fury,
> >signifying nothing" may apply.
> >
> >Macbeth Act 5 Scene 5
>
> Hi Fred,
>
> Even here, that one is becoming stale. I especially enjoy Boswell.
>
> From "Boswell's Life of Johnson"
> "Boswell: 'But, Sir, does not Rousseau talk such nonsense?'
> Johnson: 'True, Sir, but Rousseau knows he is talking nonsense,
> and laughs at the world for staring at him.'"
>
> We have our own pale imitations of Rousseau too. ;-)
>
> 73's
> Richard Clark, KB7QHC

3281. WTB: Rohn 45G section in Mass, CT, or RI

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 13:30:17 UTC
From: Gil Bishop <gbishop@cox.net>
Message-ID: <JHKE9.29603$wc2.1313486@news2.east.cox.net>
Source record: 130521

Doesn't have to be "perfect" cosmetically but can't be stressed or twisted obviously - will be burying it as base section. I can pickup pretty much anywhere in Southern New England.

Thanks and 73
Gil
k1gil

3282. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 13:44:59 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0211260544.352aca89@posting.google.com>
Source record: 130522

cprstn54zz@att.net (Ken) wrote in message
news:<3de22fe9.30692421@news-server.optonline.net>...

> Does this mean 7 MHz, 5-watt QRP is OK on network-quality twisted
> pair? What is the impedance?
>
> There is no point in doing this unless it has lower attenuation than
> RG-174. Does it?
>

My point was that standard PVC insulated 'telephone wire' is a poor choice for RF use. This is because the PVC insulation will absorb the RF causing very high loss. In my case I was using high enough power that there was enough heat that the insulation melted. What I was experimenting with was a compact quad antenna that had a length of twisted pair as a loading capacitor--a high RF voltage was present. Certain frequencies may be worse than others, but I would not recommend it at all for transmission lines. It may be OK for low power temporary antennas but is typically too soft for anything permanent.

RG-174 would be fine. If you don't use more than 2 or 3 feet of it!.

Jim
N8EE

3283. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 13:51:55 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0211260551.f150371@posting.google.com>
Source record: 130523

Guess I could have been more clear on my point, Richard.

What I was refering to was the fact that, in my experience, most people think that 'digital' has simpler rules than 'analog' simply because it is nothing but 1s and 0s. As I myself have found out (the hard way!) the best thing to do is to treat digital as if it was RF.

Jim
N8EE

3284. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 14:19:55 UTC
From: richardharrison@webtv.net
Message-ID: <8728-3DE3830B-402@storefull-2313.public.lawson.webtv.net>
Source record: 130524

Art, KB9MZ wrote:
"---broadening the frequency span of a monobander---."

Thanks, Art. The light dawns. We`ve been discussing different antennas.

Best regards, Richard Harrison, KB5WZI

3285. Re: WTD:Motorola Software GM300

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 15:00:26 UTC
From: Bruce Lane <SpammersAreVermin@dev.nul>
Message-ID: <MPG.184d2c677433117b989a62@news.drizzle.com>
Source record: 130525
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

In article <ruqE9.170$yy.144854@newsread1.prod.itd.earthlink.net>,
okiemansc@yahoo.com says...

> I am in need of a hopefully ham version of Motorola GM 300 version 4 or
> version5 software for converting it to the 440 band for repeater use.

<snip>

Are you really sure you want to be asking about that sort of thing
in a publicly-readable newsgroup? You obviously haven't seen Motorola's
licensing agreement. Positively scary, and yes, they can and will
prosecute anyone who they think they need to make an example of for
copying or using unlicensed RSS.

If you need programming service, I can help you (yes, I'm
licensed). See http://www.bluefeathertech.com/rf.html

Keep the peace(es).

--
Bruce Lane, Owner and Head Hardware Heavy,
Blue Feather Technologies -- http://www.bluefeathertech.com
Amateur Radio: KC7GR (Formerly WD6EOS) since 12-77.
kyrrin (a/t) bluefeathertech dot-com (Reassemble to use)
"I'll get a life when someone demonstrates to me it would be superior to
what I have now..." (Taki Kogoma)

3286. (SOLD)Re: Mini-UHF connectors CHEAP!!! $8.00

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 15:24:54 UTC
From: 6MtrSSB <nospam@tome.com>
Message-ID: <anME9.25916$vM1.1978727@bgtnsc04-news.ops.worldnet.att.net>
Source record: 130526
Cross-posted to: alt.ham-radio.vhf-uhf,rec.ham-radio.swap,rec.radio.amateur.antenna,rec.radio.swap

they sold,
thnx

3287. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 16:10:36 UTC
From: tdonaly@aol.com
Message-ID: <20021126111036.28044.00000142@mb-cf.aol.com>
Source record: 130527

Richard wrote,
>
>Hi Fred,
>
>Even here, that one is becoming stale. I especially enjoy Boswell.
>
>From "Boswell's Life of Johnson"
> "Boswell: 'But, Sir, does not Rousseau talk such nonsense?'
> Johnson: 'True, Sir, but Rousseau knows he is talking nonsense,

> and laughs at the world for staring at him.'"
>
>We have our own pale imitations of Rousseau too. ;-)
>
>73's
>Richard Clark, KB7QHC
>

Johnson, on more than one occasion, was an ass. His remarks concerning women preaching are proof of that. He is famous for his cleverness, not his wisdom.

Tom Donaly, KA6RUH

3288. Help: MFJ-914 Autotuner Extender

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 16:39:30 UTC
From: Nick G4FAL <g4fal@nospam.riverauto.co.uk>
Message-ID: <9uNE9.8160$XN5.1068578@wards>
Source record: 130528
Cross-posted to: uk.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Has anyone got experience of the MFJ-914 autotuner extender? This box apparently "puts NEARLY ANY coax fed antenna into the matching range of your automatic ATU".

Does it work?

What is in the box?

Nick, G4FAL

3289. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 16:57:06 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <4r97uuk7gsv81u00io62hr0gcfr6efav9k@4ax.com>
Source record: 130529

On Tue, 26 Nov 2002 04:28:28 -0500, "Fred Hambrecht Sr."
<w4jle@charter.net> wrote:

>'Tis the only one I know Richard, I may be the only person you know that can
>give you the entire play from memory.
>

Hi Fred,

Ah, from memory, that is another thing all together. From memory I
don't think I have anything all the way through, so you have me there.

That is one long play too!

Hi Anad,

I'm still waiting for your picture.

73's
Richard Clark, KB7QHC

3290. Re: Help: MFJ-914 Autotuner Extender

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 17:31:09 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DE3AFB6.39EBDC95@uwe.ac.uk>
Source record: 130531
Cross-posted to: uk.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment

Nick G4FAL wrote:
>
> Has anyone got experience of the MFJ-914 autotuner extender? This box
> apparently "puts NEARLY ANY coax fed antenna into the matching range
> of your automatic ATU".
>

Dear Nick,

Feeding badly mis-matched antennas with coax is a bad idea. The losses in even good quality coax escalate rapidly when operated at high SWRs. The matching unit may present a good 50 ohm resistive load to your rig but the feedline will still be running at a high SWR. If the built in ATU wont match it, it probably means that the aerial shouldn't be fed with coax.

The manual for the MFJ is here
http://www.mfjenterprises.com/man/pdf/MFJ-914.pdf

It is as uninformative as most MFJ manuals.

From the operating instructions I would expect to see 3 fixed caps and a coil tapped in three places inside. It will put these either in series or parallel with the antenna. It may be all caps three put in series, three put in parallel.

This page has a little more info
http://www.wb0w.com/mfj/manuals/mfj914man.html

There are some pretty poor/mixed reviews on E-ham

http://www.eham.net/reviews/detail/884

I'd say you'd be better off getting a proper ATU and some ladder line.

I'd strongly recommend the SGC 230 but that may be too costly for your plans.

just my tuppence worth

vy 73

Andy, M3ABC

3291. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 17:38:23 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <34a7uukpsh9rnbe8d9h0t58gcpi6rv6jvs@4ax.com>
Source record: 130530

On 26 Nov 2002 16:10:36 GMT, tdonaly@aol.com (Tdonaly) wrote:

>Richard wrote,
>>
>>Hi Fred,
>>
>>Even here, that one is becoming stale. I especially enjoy Boswell.
>>
>>From "Boswell's Life of Johnson"
>> "Boswell: 'But, Sir, does not Rousseau talk such nonsense?'
>> Johnson: 'True, Sir, but Rousseau knows he is talking nonsense,
>
>> and laughs at the world for staring at him.'"
>>
>>We have our own pale imitations of Rousseau too. ;-)
>>
>>73's
>>Richard Clark, KB7QHC
>>
>
>Johnson, on more than one occasion, was an ass. His remarks concerning
>women preaching are proof of that. He is famous for his cleverness, not his
>wisdom.
>
>Tom Donaly, KA6RUH
>

Hi Tom,

There's no dispute Johnson could be an ass, as you put it. With your
regard for female perspective, Johnson was asked to comment on
infidelity and why there was a difference in the perception between a
straying man, and a straying woman:
"The difference is boundless. The man imposes no bastards
upon his wife."
Reported singly, and out of context with the times, this remark stings
our PCness, but for the titled (Johnson's patrons), family line is a
very important thing. One need only look at the monarchy and their
anguish of blooded lines.

Boswell, on the other hand, also squirmed from the rigid theology. In
his voice:
"Here it may be questioned whether Johnson was entirely in the
right. I suppose it will not be controverted that the difference
in the degree of criminality is very great, on account of

consequences: but still it may be maintained, that, independent of moral obligation, infidelity is by no means a light offence in a husband: because it must hurt a delicate attachment, in which a mutual constancy is implied...."

Boswell on more than one occasion would come up against one of these moral knots he found in Johnson. And on every occasion he would draw him out for a fuller discussion. Those conversations reveal a more intricate web of morality deeply rooted with the greeks (a classical training), heavily anchored in religion, and very aware of class. On several occasions, Boswell could pull Johnson his way with logic, wit, and being right. Johnson revered right; but he would play the devil's advocate to prove the faithful acted without faith.

"It is more from carelessness about truth than from intentional lying that there is so much falsehood in the world."

There's also no dispute of Johnson's talent that went beyond cleverness (is cleverness a fault?) and he was considered a sage long before Boswell's reporting - which I think you are confusing with the man.

73's
Richard Clark, KB7QHC

3292. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 17:50:29 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <3ic7uucjig8ko4jvb32qn2jr27c15gvjt4@4ax.com>
Source record: 130532

On 26 Nov 2002 05:51:55 -0800, jim.bolinger@lintek.aeroflex.com (JLB) wrote:

>Guess I could have been more clear on my point, Richard.
>
>What I was refering to was the fact that, in my experience, most
>people think that 'digital' has simpler rules than 'analog' simply
>because it is nothing but 1s and 0s. As I myself have found out (the
>hard way!) the best thing to do is to treat digital as if it was RF.
>
>Jim
>N8EE

Hi Jim,

OK That I can relate to entirely.

When I was designing the Black Box, I was reviewing the specifications for all the airframe sensors I was monitoring (through 600 individual connections). Among them was the spec for the tape head that recorded the data and that drew my attention to the last generation design for the tape deck. The specs allowed for a terrible bandwidth (not usually found in the head specification, but this was cobbled together paper-work).

It was a simple affair (not part of my job as it was 'plug-n-play') and on inspection I found the head circuitry lacked a bias oscillator. I asked the designer about it.

"Bias oscillator? What's that?" came the reply.

I explained how it boosted the fidelity of recording and thus allowing for a squarer wave recording.

"Don't need it, we are recording digital data, not Hi-Fi."

I never penetrated that iron curtain.

73's
Richard Clark, KB7QHC

3293. Re: coplanar patch antenna-info needed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 18:21:42 UTC
From: tdonaly@aol.com
Message-ID: <20021126132142.27978.00000109@mb-cf.aol.com>
Source record: 130533

>
>Hi Tom,
>
>There's no dispute Johnson could be an ass, as you put it. With your
>regard for female perspective, Johnson was asked to comment on
>infidelity and why there was a difference in the perception between a
>straying man, and a straying woman:
> "The difference is boundless. The man imposes no bastards
> upon his wife."
>Reported singly, and out of context with the times, this remark stings
>our PCness, but for the titled (Johnson's patrons), family line is a
>very important thing. One need only look at the monarchy and their
>anguish of blooded lines.
>
>Boswell, on the other hand, also squirmed from the rigid theology. In
>his voice:
> "Here it may be questioned whether Johnson was entirely in the
> right. I suppose it will not be controverted that the difference
> in the degree of criminality is very great, on account of
> consequences: but still it may be maintained, that, independent
> of moral obligation, infidelity is by no means a light offence in
> a husband: because it must hurt a delicate attachment, in which a
> mutual constancy is implied...."
>
>Boswell on more than one occasion would come up against one of these
>moral knots he found in Johnson. And on every occasion he would draw
>him out for a fuller discussion. Those conversations reveal a more
>intricate web of morality deeply rooted with the greeks (a classical
>training), heavily anchored in religion, and very aware of class. On
>several occasions, Boswell could pull Johnson his way with logic, wit,
>and being right. Johnson revered right; but he would play the devil's
>advocate to prove the faithful acted without faith.
>
> "It is more from carelessness about truth than from intentional
> lying that there is so much falsehood in the world."
>
>There's also no dispute of Johnson's talent that went beyond
>cleverness (is cleverness a fault?) and he was considered a sage long
>before Boswell's reporting - which I think you are confusing with the
>man.
>
>73's
>Richard Clark, KB7QHC
>

Hi, Richard,
this probably isn't the proper place to discuss Samuel
Johnson, but of
course he did a great service to the English language with his dictionary, and
his
writing, but Boswell, in the example you cited, could have pointed out to
Johnson
that a straying man may not impose bastards on his wife, but he certainly may
on
someone else's wife. You may be right, that I'm confusing Boswell's depiction
with
the man, but I think that, in the main, Boswell did a pretty good job.
73,
Tom Donaly, KA6RUH

3294. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 19:04:57 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211261104.3088be9a@posting.google.com>
Source record: 130534

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<aru636dqa1@venus.btinternet.com>...
> "Bill Ogden" wrote -
> > The advantage of the half-sloper (over a vertical with gamma matches)
> would seem
> > to be that the high-current point is elevated and will, we assume, radiate
> > better.
> ================================
> Bill, please forgive the intrusion, but the idea that the high current
> portion of an antenna wire does most of the radiating is a popular
> misconception propagated by Old Wives and technical editors. It is equally
> illogical that most of the radiation occurs from the ends of an antenna wire
> because that is where the highest voltages occur.

I'm sure the whole antenna contributes to the overall radiation, but I think there are cases that point to the "high current" section as being fairly important to the overall efficiency. If what you say is true, there would be no advantage to raising the coil up towards center of the whip, instead of a base load. But in cases of mediocre grounding, it does seem to make a difference. Not to mention the improved current distribution. I've always found this to be quite an improvement over a base fed on the lower bands. In the case of the sloper, I think elevating the high current point does reduce ground losses.

But on the other hand, I don't worry so much about the high current section, that I ignore the high voltage sections. IE: 40 ft high dipole vs 40 ft high inv vee. Yes, the high current section "apex" on each of these antennas is at the same height, but I've always had the best results with the flat top dipole where the whole antenna is up in the air equally. MK

3295. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 19:16:10 UTC
From: richardharrison@webtv.net
Message-ID: <29229-3DE3C87A-966@storefull-2318.public.lawson.webtv.net>
Source record: 130536

John Dyson wrote:
"In a way, it makes little sense to decrease the qualifications if they are already so low, and even that slight impediment is stopping participation."

John wants to sell amateur radio it seems. Bill Gates would like to sell the world wide web and computing. Bill is not alone in selling alternate persuasions.

John reminds me of a vendor saying, "---our price is only a little more. Why are our competitors killing us?" Some prospects aren`t hooked on your product and shop for the lowest bid. Do you want to beat the competition, or don`t you?

Best regards, Richard Harrison, KB5WZI

3296. Helpppppppp IC-47A

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 19:23:12 UTC
From: Samantha Rivera <jaders30@n7ym.net>
Message-ID: <ASPE9.8923$kO5.1967003@news1.news.adelphia.net>
Source record: 130535

have an Icom 47A 440 MHz mobil radio. This radio is about 15 to 17 years old and still working. I contact ICOM and they say it will take over tow weeks for them to research the info for me.

Does anyone here knows where the Discriminator output is? I need to know where the audio discriminator is located so I can add a sampling simplex autopatch into it.

If you know please email me directly... n7ym@n7ym.net

Thanks

William

3297. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 19:42:59 UTC
From: richardharrison@webtv.net
Message-ID: <29229-3DE3CEC3-988@storefull-2318.public.lawson.webtv.net>
Source record: 130540

Richard Clark, KB7QHC wrote:
"I never penetrated that iron curtain."

Richard Clark must not have lectured the specifications guy on square corners and all the odd-harmonics abrupt changes demand for transmission and reproduction.

Best regards, Richard Harrison, KB5WZI

3298. Re: Modeling a Wire Fence in EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 19:59:32 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <clOdnZDtSMaqT36gXTWcpQ@comcast.com>
Source record: 130537

Roy,

Would it make sense for him to simulate the fence with a few very thick
conductors?

Tam/WB2TT
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:uu5jibk47dvs16@corp.supernews.com...
> You'll find that worrying about the conductivity of the fence wire
> (which will be that of zinc, assuming the coating is reasonably thick)
> is a waste of time. With as much surface area as the fence has, the loss
> will be negligible.
>
> Roy Lewallen, W7EL
>
> Wes Stewart wrote:
> > On Mon, 25 Nov 2002 22:09:19 +0000, Jerry Flanders
> > <SeeSignature@below.com> wrote:
> >
> > |You might want to consider using a different tool for this. 4nec2
> > |includes "BUILD", which can apparently generate the "gridded surface"
> > |you are after, then can handle the additional segment load required to
> > |evaluate it. I haven't used it for this particular shape, but BUILD's
> > |"patch" generating feature looks like it will do the job. 4nec2 is
> > |free.
> > |
> > |Another tool that could probably handle the segment load is MultiINEC
> > |with generic NEC as the engine (needs EXCEL, 97 or better, but is also
> > |free), and MultiNEC will accept the NEC output from BUILD as well.
> > |
> > |What conductivity will you use for galvanized fence wire? I couldn't
> > |find any info on conductivity a while back when I was looking.
> >
> > Most of the modeling programs include Zinc for wire loss.
>

3299. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 20:07:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uu7l4gehcup81c@corp.supernews.com>
Source record: 130538

Unlike your designer, I do know what bias oscillators are and what they're for. But like him, I don't understand why one would be necessary or important for digital (by which I mean binary) recording. Why would you use one? Do hard and floppy disk drives use bias oscillators?

Long ago I designed electronics for reading from and writing to a floppy disk, and didn't use a bias oscillator. It performed about at the state of the art at the time, but maybe I was missing something. . .

Roy Lewallen, W7EL

Richard Clark wrote:
>
> Hi Jim,
>
> OK That I can relate to entirely.
>
> When I was designing the Black Box, I was reviewing the specifications
> for all the airframe sensors I was monitoring (through 600 individual
> connections). Among them was the spec for the tape head that recorded
> the data and that drew my attention to the last generation design for
> the tape deck. The specs allowed for a terrible bandwidth (not
> usually found in the head specification, but this was cobbled together
> paper-work).
>
> It was a simple affair (not part of my job as it was 'plug-n-play')
> and on inspection I found the head circuitry lacked a bias oscillator.
> I asked the designer about it.
>
> "Bias oscillator? What's that?" came the reply.
>
> I explained how it boosted the fidelity of recording and thus allowing
> for a squarer wave recording.
>
> "Don't need it, we are recording digital data, not Hi-Fi."
>
> I never penetrated that iron curtain.
>
> 73's
> Richard Clark, KB7QHC

3300. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 20:14:07 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE3D60F.21DA4DA8@ieee.org>
Source record: 130539

Richard Harrison wrote:
>
> John Dyson wrote:
> "In a way, it makes little sense to decrease the qualifications if they
> are already so low, and even that slight impediment is stopping
> participation."
>
> John wants to sell amateur radio it seems. Bill Gates would like to sell
> the world wide web and computing. Bill is not alone in selling alternate
> persuasions.

If perfection is desired, I say let's raise the requirements until only
one perfect amateur radio operator can qualify. There's only one Miss Universe.
Why should ham radio be any different? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3301. Re: Modeling a Wire Fence in EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 20:15:54 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE3D67A.87ECB490@ieee.org>
Source record: 130541

Tarmo Tammaru wrote:
> Would it make sense for him to simulate the fence with a few very thick
> conductors?

Why not make the conductor diameter the same as the fence height? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3302. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 20:21:20 UTC
From: fractenna@aol.com
Message-ID: <20021126152120.14034.00000257@mb-fm.aol.com>
Source record: 130542

I told you where to look.

It will appear, and the issue will be non-existent.

The bigger issue--which has been orchestrated (and I use that word correctly) by a handful of 'senior' antenna folks (tell us who they are, Steve) is the dubious issue of 'fractals do no better than other small/broadband/frequency independent/antennas'.

The answer is 'yes'.

Better prepare for damage control gentlemen: hard facts kill poor anecdotal attempts at 'science.'

Enjoy your sense of security on the issue for a few more weeks anyway.

Like I said, you'll know where to look:-)

Have a happy thanksgiving,

Chip N1IR

3303. Re: Re: Modeling a Wire Fence in EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 20:23:20 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <dml7uugkocoug492ebr5ba8aqh8g0a7itm@4ax.com>
Source record: 130543

Thanks, Roy. Your post was helpful, and had the added benefit of
helping me understand how and when to use the different ground types.

I didn't want you to think I missed your post, but I've been pretty
busy with work. I quickly put together a wire fence model like you
described, but I haven't had time to really study it or combine it
with my antenna model.

--Mike

------------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

3304. Re: Modeling a Wire Fence in EZNEC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 20:41:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uu7n2oler0n703@corp.supernews.com>
Source record: 130544

I posted some information about modeling it with a few conductors a couple of days ago, but didn't mention wire diameter. Generally, when using a wire grid to substitute for a surface (or close mesh like a chain link fence), you use wires with large diameter -- so large that the surface area of the wire is about the same as the surface it's replacing. There's more information about this in the EZNEC manual -- see "Wire Grid Modeling" in the index. But for this model I think really large wires might not be too good an idea, for a couple of reasons. One is that the NEC-2 engine doesn't like connecting a small diameter antenna to huge wires. It can usually be made to work, but you often have to tweak your model while watching the average gain. Another is that the bottoms of the vertical wires are very close to ground. You don't want the ends to be closer than about a wire radius -- farther is better. And I don't think there'll be much difference in results for this situation between moderate sized wires (say, the diameter of the fence supports) and the very large ones usually used for wire grid modeling. If I were doing it, I'd probably try a couple of different diameters and see if it makes much difference.

Roy Lewallen, W7EL

Tarmo Tammaru wrote:
> Roy,
>
> Would it make sense for him to simulate the fence with a few very thick
> conductors?
>
> Tam/WB2TT
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:uu5jibk47dvs16@corp.supernews.com...
>
>>You'll find that worrying about the conductivity of the fence wire
>>(which will be that of zinc, assuming the coating is reasonably thick)
>>is a waste of time. With as much surface area as the fence has, the loss
>>will be negligible.
>>
>>Roy Lewallen, W7EL
>>
>>Wes Stewart wrote:
>>
>>>On Mon, 25 Nov 2002 22:09:19 +0000, Jerry Flanders
>>><SeeSignature@below.com> wrote:
>>>
>>>|You might want to consider using a different tool for this. 4nec2
>>>|includes "BUILD", which can apparently generate the "gridded surface"

>>>|you are after, then can handle the additional segment load required to
>>>|evaluate it. I haven't used it for this particular shape, but BUILD's
>>>|"patch" generating feature looks like it will do the job. 4nec2 is
>>>|free.
>>>|
>>>|Another tool that could probably handle the segment load is MultiINEC
>>>|with generic NEC as the engine (needs EXCEL, 97 or better, but is also
>>>|free), and MultiNEC will accept the NEC output from BUILD as well.
>>>|
>>>|What conductivity will you use for galvanized fence wire? I couldn't
>>>|find any info on conductivity a while back when I was looking.
>>>
>>>Most of the modeling programs include Zinc for wire loss.
>>
>
>

3305. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 20:53:29 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <as0n06$6hv$1@slb6.atl.mindspring.net>
Source record: 130545

Thread:

[snip]
>
> Like I said, you'll know where to look:-)
>
> Have a happy thanksgiving,
>
> Chip N1IR
[snip]

Heh, heh...

Visiting Chip's pontificaly pronouncements on his "hermetically sealed and highly censored" web site is sorta like dealing with the Sadam Hussein and the Iraqi media in the field of antenna design.

To find the truth, one would have to send UN inspectors into Chip's nominated web site under threat of "serious consequences", and... the possibility of any questions or debate about the challenge in that protected venue would be moot without open debate.

I for one feel that it will only be a "fair debate" if Chip presents his results here for comment and debate on the very forum [USENET NG rraa] where he personally took his and our valuable time to issue his challenge to a debate.

If he can issue his challenge to a debate here, then what gives him the right ask others to see his one sided posts only on his web site?

It would only be fair and balanced for him to post his results here for all to see. He must do so here where the world's most renowned antenna experts can engage in the debate on neutral territory, i.e. rraa is the "no spin zone" for antenna gurus.

But as we all know from Chip's past behavior... that is not likely to happen! Apparently as we have often seen... like the Pontif of Rome, Chip's pontifications can not be questioned!

I for one will never go to *his* site to see just one side of this debate! [Just as I would never go to the Iraqi media to find the truth about Sadam Hussein.] Unless Chip posts his results here on rraa for all to see, comment and debate, then AFAIC he has simply already *LOST* the debate.

Chip, my boy don't waste your time if that's all you intend to do! If you can't run with the big dog's then stay on the porch!

--
Peter K1PO
Indialantic By-the-Sea, FL

3306. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 21:10:13 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <as0nvk$i31$1@knossos.btinternet.com>
Source record: 130546

> I'm sure the whole antenna contributes to the overall radiation, but I
> think there are cases that point to the "high current" section as
> being fairly important to the overall efficiency.

==========

The high current section is no more important than any other section.

It is equally logical (or illogical) to say - when the loading coil is raised further up the whip the voltage above the coil increases, the electric field intensity increases and so radiation from the top portion of the antenna becomes stronger.

What happens is explained just as easily without any reference to current distribution, only voltage.

(In a small way the current-carrying portions ARE more important but only because that's where conductor loss occurs.)

(Not surprising, there's a resistance associated with radiation from the ends of an antenna. Power radiated is (V-squared)/Rrad, where V is the RF voltage at the end relatve to the zero voltage point. For a 1/4-wave vertical Rrad is of the order of 2 or 3 thousand ohms. For a short vertical it can be many kilohms.)

Reg, G4FGQ

3307. Re: gain without pain

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 21:34:50 UTC
From: ka8uze <ka8uze@prodiy.net>
Message-ID: <_NRE9.4709$Q03.2494@newssvr19.news.prodigy.com>
Source record: 130547

"Dale Parfitt" <parinc@verizon.net> wrote in message
news:3DE04FD3.567F6B76@verizon.net...
>
>
> ka8uze wrote:
>
> > cannot figure phase lengths for 10meter (phone)L1 and L2 4.95 ft
element
> > spacing
> >
> > many thanks paul werhane ka8uze
>
> Have you got L3 and L4 worked out? What?
>
> W4OP
this is three element delta qst june 2001 using eznec 3

ka8uze paul

3308. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 22:00:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uu7rn5g7kuqu59@corp.supernews.com>
Source record: 130548

Yet programs like NEC and MININEC depend entirely on the notion that the field produced from a conducting segment is directly proportional to the current flowing in that segment. And, within our ability to measure, they seem to do extremely well at predicting the fields that real antennas radiate.

Roy Lewallen, W7EL

Reg Edwards wrote:
>>I'm sure the whole antenna contributes to the overall radiation, but I
>>think there are cases that point to the "high current" section as
>>being fairly important to the overall efficiency.
>
>
> ==========
>
> The high current section is no more important than any other section.
>
> It is equally logical (or illogical) to say - when the loading coil is
> raised further up the whip the voltage above the coil increases, the
> electric field intensity increases and so radiation from the top portion of
> the antenna becomes stronger.
>
> What happens is explained just as easily without any reference to current
> distribution, only voltage.
>
> (In a small way the current-carrying portions ARE more important but only
> because that's where conductor loss occurs.)
>
> (Not surprising, there's a resistance associated with radiation from the
> ends of an antenna. Power radiated is (V-squared)/Rrad, where V is the RF
> voltage at the end relatve to the zero voltage point. For a 1/4-wave
> vertical Rrad is of the order of 2 or 3 thousand ohms. For a short vertical
> it can be many kilohms.)
> ---
> Reg, G4FGQ
>
>

3309. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 22:36:30 UTC
From: Bill Ogden <ogden@us.ibm.com>
Message-ID: <3DE3F76E.AF864D45@us.ibm.com>
Source record: 130549

Thank you, Roy. Reg's comment made me wonder if I understood even less that what I *think* I understand (which is not much).

To the extent that a half-sloper is an odd type of vertical, it seems that a high feed point should help. (Especially if there is some clutter around the tower base.)

I am getting a strong impression that half-slopers are in the realm of "fool with it until it works well enough" instead of "calculate the right answer and build it." I accept that modeling could be very helpful, but it would probably be necessary to accurately model the tower itself, whatever loading is above the feed point (I should not have called it "counterpoise" in my initial query), a fairly accurate description of the ground and radials, whatever other feed and control lines are also present on the tower, and the characteristics/position of the sloper wire.

Regards,

Bill
W2WO

> Yet programs like NEC and MININEC depend entirely on the notion that the
> field produced from a conducting segment is directly proportional to the
> current flowing in that segment. And, within our ability to measure,
> they seem to do extremely well at predicting the fields that real
> antennas radiate.
>
> Roy Lewallen, W7EL
>

3310. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-26 22:45:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uu7uck65hru152@corp.supernews.com>
Source record: 130550

I tried a half-sloper a long time ago, when the concept first showed up. At the time I didn't understand much about antennas, so was surprised to find that the wire wasn't really the antenna -- the antenna is the wire, the support, and in some cases the feedline, all in about equal measures. What's happening is obvious now.

Whatever current you put into the wire portion of a sloper, an equal current has to come from somewhere and flow into the other feedline conductor. If the support is metal, the current flows in the support. And if the support is about the same length as the wire, it'll contribute about the same amount to the radiated field. If the support isn't metal, then the necessary current will flow along the outside of the coax, and it will be the other half of the antenna. So a sloper depends as much, or more, on the support, its length, diameter, and how it's grounded, as it does on the wire which most people think of as the "antenna". The tower isn't a "counterpoise" -- it's an integral part of the radiating antenna. A half sloper is essentially an inverted vee, with one leg being the wire and the other the tower. But if the tower is around a quarter wavelength high and grounded, it'll behave very differently from a conventional inverted vee.

Because of the variables involved, it would be hard to predict how a particular half sloper would behave without modeling it. This is one of the places where modeling is very useful. With modeling, you'd be able to get a good idea of what's happening and what you'd need to do to get the results you want. Without it, you'll be doing a lot of guessing and blind experimenting.

Roy Lewallen, W7EL

Bill Ogden wrote:
> Thank you, Roy. Reg's comment made me wonder if I understood even less that what
> I *think* I understand (which is not much).
>
> To the extent that a half-sloper is an odd type of vertical, it seems that a high
> feed point should help. (Especially if there is some clutter around the tower
> base.)
>
> I am getting a strong impression that half-slopers are in the realm of "fool
> with it until it works well enough" instead of "calculate the right answer and
> build it." I accept that modeling could be very helpful, but it would probably
> be necessary to accurately model the tower itself, whatever loading is above the
> feed point (I should not have called it "counterpoise" in my initial query), a
> fairly accurate description of the ground and radials, whatever other feed and
> control lines are also present on the tower, and the characteristics/position of

> the sloper wire.
>
> Regards,
>
> Bill
> W2WO
>
>
>
>>Yet programs like NEC and MININEC depend entirely on the notion that the
>>field produced from a conducting segment is directly proportional to the
>>current flowing in that segment. And, within our ability to measure,
>>they seem to do extremely well at predicting the fields that real
>>antennas radiate.
>>
>>Roy Lewallen, W7EL
>>
>
>

3311. Re: Helpppppppp IC-47A

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 00:01:37 UTC
From: scott <acepilot@bloomer.net>
Message-ID: <3DE40B60.3DC1D334@bloomer.net>
Source record: 130551

Barring getting the info you seek, can you tap the audio off the volume pot's high side? This is what I always use when hooking up a TNC to the rig...that way you have a fixed volume level regardless of where the volume knob is set. Just food for thought...

Scott
N0EDV

Samantha Rivera wrote:

> have an Icom 47A 440 MHz mobil radio. This radio is about 15 to 17 years
> old and still working. I contact ICOM and they say it will take over tow
> weeks for them to research the info for me.
>
> Does anyone here knows where the Discriminator output is? I need to know
> where the audio discriminator is located so I can add a sampling simplex
> autopatch into it.
>
> If you know please email me directly... n7ym@n7ym.net
>
> Thanks
>
> William

--

Scott
http://corbenflyer.tripod.com
http://groups.yahoo.com/group/ParasolAirplanes
Building RV-4
Gotta Fly or Gonna Die!

3312. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 01:11:32 UTC
From: dan <danlx@execpc.com>
Message-ID: <3de41b21$0$1421$272ea4a1@news.execpc.com>
Source record: 130553

Oh Chip,
All I can say is once a buffoon always a buffoon. No amount of
posturing about the location of information will make a difference.
You will always be considered, because of your own past behavior, a
BUFFOON!
You have no one else to blame for that, the credit is all yours. That
is what this is all about isn't it? You want the credit and
recognition for your work. Well the majority of people that know of
your work will give you that credit. You earned your title, you are
the buffoon!

On 26 Nov 2002 20:21:20 GMT, fractenna@aol.com (Fractenna) wrote:

>I told you where to look.
>
>It will appear, and the issue will be non-existent.
>
>The bigger issue--which has been orchestrated (and I use that word correctly)
>by a handful of 'senior' antenna folks (tell us who they are, Steve) is the
>dubious issue of 'fractals do no better than other small/broadband/frequency
>independent/antennas'.
>
>The answer is 'yes'.
>
>Better prepare for damage control gentlemen: hard facts kill poor anecdotal
>attempts at 'science.'
>
>Enjoy your sense of security on the issue for a few more weeks anyway.
>
>Like I said, you'll know where to look:-)
>
>Have a happy thanksgiving,
>
>Chip N1IR
>
>
>

Dan
N9JBF

I've rambled enough, back to the rocking chair. ZZZZZZZZZ
Remove left x for e-mail reply.

3313. Re: HB9CV designs ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 01:39:42 UTC
From: Dan/W4NTI <w4nti@NOSPAMmindspring.com>
Message-ID: <as180r$h91$1@slb6.atl.mindspring.net>
Source record: 130554

It is basically what was called a ZL Special some years back. It is a short spaced two element beam of basically yagi design.

Both elements are fed. Out of phase from each other. When I was in Germany in the USArmy I had one built for 2 meters. It was mainly used there for a 'fox hunting' antenna.

Brought it back with me, but it got away somewhere.

Dan/W4NTI

"Douglas Snowden" <snowden@peoplepc.com> wrote in message news:uu8419fpappl84@corp.supernews.com...
> I just found an old reference to the HB9CV 2 element beam. Looks like
> a couple of elements connected together via a phasing line. Looking on
> the web I don't see much. Anyone played with this? I'd like to play
> with one using all aluminum if it is possible. Maybe start on 10m.
>
>
> Doug N4IJ
>
>
>
>

3314. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 01:55:12 UTC
From: K3UD <K3UD@charter.net>
Message-ID: <K3UD-DF3BCF.19551126112002@corp.supernews.com>
Source record: 130555

In article <3DDE7362.4C21FF9D@us.ibm.com>,
Bill Ogden <ogden@us.ibm.com> wrote:

> I want to attach half-slopers to my TX-455 crank-up tower. The tower
> will hold (when I finally get it installed) a 5-band quad on a mast that
> extends 6' above the tower top. This is not much "counterpoise mass" at
> the top.
>
> I can connect the half-sloper to the top of the tower (55' level) or to
> the top of the middle section (37' level). Which is better? I am
> concerned about the need for "counterpoise" above the attachment point
> and also about any side effects on the quad. (Would a 10' whip above the
> quad help anything?)
>
> I will have a number of radials connected to the base of the tower. I
> want to use half-slopers on 40 and 80/75 meters -- and maybe on 160 and
> 30 if I can get a reasonable match on these bands. Coax feed for the
> half-slopers (and the quad) is outside the tower, using the coax
> stand-off arms.
>
> Thanks,
>
> Bill
> W2WO

Bill,

I have used half slopers with success for 22 years, experimenting with wire lengths, top loading, and radials under the tower. I have found that in my installation, 32 - 38 feet up on the tower works well. I have also found that the more top loading you have on the tower in the way of HF and VHF beams, the better the system performs.

I once tried to use a 35 foor push up pole at a field day site as the half sloper support grounded at the base. It did not perform well at all and I think it was because top loading was not present in the installation.

Radials attached to the base of the tower seem to help a bit as I once set up a system where I could disconnect the radials via a remotely operated relay from inside the shack and make A/B comparisons on different bands. Becuase the radials were in the ground and the tower base was also in the ground I suspect that they still had some interaction when disconnected.

Most stations reported a difference when the radials were disconnected, although the difference never amounted to a few db on the minus side, and some noticed no difference. The interesting thing about this experiment was that some stations told me they could definatly hear a difference in the signal with the radials attached, but could not see difference on their S meters. The swr as measured in the shack did change a bit on most bands though.

I also found that no matter how much I tried, I could never get a better than 3/1 match on 75 meters while there was not much problem getting good matches on 160 and 40 meters. While a standard 1/2 sloper on 40 meters works well, A 3/4 wave sloper on 40 worked better.

At one time I had individual half slopers on the tower for 160/75 and 40 meters all running in different directions. I found that except for 75 meters, the angle of the wire can have an effect the swr as measured in the shack.

Presently, I am using the Alpha Delta DX-B ($25 on eBay.... could not resist) and it works well on the 4 bands it is designed for although the best SWR on 75 is about 4/1. On 160 it is very narrow in terms of bandwidth havinf about a 15khz range +/- it's resonant frequency. On the other hand, one wire replaced three. I have worked a surprising amount of DX on 160 and 75 with it, and A very good amount on 40.

These are just my observations gathered after 22 years of use and I do not claim to be an expert of any sort nor do I own any analyzers of computer plotting programs. Just cut and try.

73
George
K3UD

3315. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 02:28:24 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <as1ak6$43h$1@helle.btinternet.com>
Source record: 130556

"Roy Lewallen" says -
> Yet programs like NEC and MININEC depend entirely on the notion that the
> field produced from a conducting segment is directly proportional to the
> current flowing in that segment. And, within our ability to measure,
> they seem to do extremely well at predicting the fields that real
> antennas radiate.
>
==========
Roy, your (above) statement is fully endorsed.

However I hasten to reassure you I am the last person to attempt to decry the usefulness of your renouned programs. But I have never used numerical computing tools, not even a Smith Chart to prove the laws of physics. They lack any connections. I mention programs here only because you have done.

But I'm sure you would not wish to encourage those who jump to the conclusion that radiation mainly occurs from those PARTS of a dipole which carry the greatest current thus incorrectly conveying the impression that some parts are more important than others. And no-one classifies you as an Old Wife. ;o)

That the programs you mention depend ENTIRELY on NOTIONS (your description) and the imaginations of mathematicians which happen to provide the correct answers as determined by experiment should not be allowed to put the cart before the horse. Radiation came first. The Big Bang? - THEN came the mathematical techniques imported from other fields of application. Mainly Victorian physics and mechanics. And of course the once-ridiculed Oliver Heaviside.

There are other, equally valid mathematical tools for predicting distant radio fields from antenna dimensions. There must be at least one corresponding method which begins with the NOTION of the voltage distribution along a conductor, even no conductor, the etherial fluid.

Current need not be involved. The mathematical process is changed. Should we then jump to the conclusion that radiation occurs mainly from the end portions of a dipole merely because that is where the electric field has its greatest intensity?

To conclude, the radiation field is zero on the surface of a conductor segment regardless of what current may be flowing in it. And radiation occurs by detachment from the near field at short distances from the conductor because of the free-space propagation velocity and the time factor. So the near electric field does not have sufficient time (as set by frequency) to collapse on itself at the instant of zero voltage on the antenna. It becomes detached, flies away. We then, for convenience, change

its name to the radiation field.

I could have said, equally truthfully, at the instant of zero current in the antenna, the near magnetic field at short distances from the antenna wire does not have time to collapse to zero. So it also becomes detached and flies away, for ever, in phase with the detached electric field. Note that the near-field magnetic and electric components are at 90 degrees to each other and so no power is involved except the relative small fraction lost in conductors and what is radiated. The small loss is related to antenna Q and bandwidth as discussed recently.

And I've gone to this great length just to say greatest radiating efficiency or a desired radiating pattern do not always occur when the current carrying portions of an antenna wire are at the highest point of the antenna above ground. All parts of the antenna are of equal importance. But not as much as may be supposed - just get some amps and volts as high in the air as possible and away you go distant places.

PS: I've just noticed in the small print the contents of this bottle of Californian (Rivercrest) white whine are measured in milli-litres. Is this another sign the US is finally going metric or is it merely because it is labelled for export?

Reg, G4FGQ.

3316. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 02:39:46 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ofb8uu06ufcocorgpfkh2nck337jpdrs2t@4ax.com>
Source record: 130557

On 26 Nov 2002 20:21:20 GMT, fractenna@aol.com (Fractenna) wrote:

> 'fractals do no better than other small/broadband/frequency
>independent/antennas'.
>
>The answer is 'yes'.
>
imagine that.

I suppose this hinges on the genetically optimized definition of yes.

>
>...a few more weeks anyway.

No crystal ball needed there, bubba.

73's
Richard Clark, KB7QHC

3317. TH7DXX as a 40 meter antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 03:14:21 UTC
From: LJ <nt6b-vk7lm@dslextreme.com>
Message-ID: <uu8e46kpa9to3e@corp.supernews.com>
Source record: 130558

Hi to the group.

Does anyone have the plans or information for using the TH7DXX's boom as a 40 meter dipole? A friend of mine has the TH7 and would like to work 40 with it As I recall the antenna worked pretty well on 40......any comments, suggestions would be appreciated..

73's....Lonnie (NT6B)

3318. HB9CV designs ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 03:23:37 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <uu8419fpappl84@corp.supernews.com>
Source record: 130552

I just found an old reference to the HB9CV 2 element beam. Looks like a couple of elements connected together via a phasing line. Looking on the web I don't see much. Anyone played with this? I'd like to play with one using all aluminum if it is possible. Maybe start on 10m.

Doug N4IJ

3319. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 03:27:47 UTC
From: Rollo <webmechanic@hotmail.com>
Message-ID: <oprgh3yqhsuoy5bj@netnews.attbi.com>
Source record: 130559
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

On Sat, 23 Nov 2002 20:42:51 -0500, phil :p <just_rtfm@yahooREMOVETHIS.com> wrote:

> knowing assembly makes you a better HLL programmer. a few years ago there
> was an online "contest" among friends to see who could write the tightest
> yahoo chat client. i wrote four clients...

<blah blah?

Chill out, Phil.
Learn Perl -- "The duct tape that holds the internet together"

3320. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 03:36:08 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <A4XE9.62445$e%.910899@news20.bellglobal.com>
Source record: 130560

Drifting off-Subject, but that's okay...

"Reg Edwards"
> ...Should we then jump to the conclusion that
> radiation occurs mainly from the end portions
> of a dipole merely because that is where the
> electric field has its greatest intensity?

Wouldn't we all take the pointy ends of antennas (and voltage) 'more seriously' as a contributor to radiation if these ends looked more like a capacitor (increased surface area, for the voltage) and less like a conductor (a wire, for current where there isn't much) ?

I suppose that one could create an antenna that worked 'more on voltage than current' (excuse the wording), but it would require a lot more material and would tend to blow away in the wind.

Current and voltage are simply two handles on the same EM crank. The current handle is more convenient.

3321. F.S. New Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 04:15:57 UTC
From: au273@freenet.carleton.ca
Message-ID: <3DE446FC.78A66A65@freenet.carleton.ca>
Source record: 130562
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

> For Sale,

New Linear Amplifier HF-2500

If interested please E-Mail me.

O.Brown,

3322. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 04:16:47 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE4472F.5856FA41@ieee.org>
Source record: 130561

Reg Edwards wrote:
> But I'm sure you would not wish to encourage those who jump to the
> conclusion that radiation mainly occurs from those PARTS of a dipole which
> carry the greatest current thus incorrectly conveying the impression that
> some parts are more important than others. And no-one classifies you as an
> Old Wife. ;o)

Reg, if one models a 1/4WL Inv-L, 1/16WL vertical and 3/16WL horizontal, the horizontally polarized radiation and vertically polarized radiation have about the same dBi gain even though the high voltage part of the antenna is three times as long as the high current part.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3323. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 04:27:43 UTC
From: "Jackie L." <buzzygirl@REMOVE.attbi.com>
Message-ID: <3RXE9.150035$nB.12843@sccrnsc03>
Source record: 130563
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Rollo" <webmechanic@hotmail.com> wrote in message
news:oprgh3yqhsuoy5bj@netnews.attbi.com...

> Learn Perl -- "The duct tape that holds the internet together"

ROTFL!! If that ain't the truth then I don't know what is...

Thanks for the big laugh, I needed that

Jackie

3324. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 07:20:31 UTC
From: BDKING <kingrat@buckeye-express.com>
Message-ID: <MPG.184e3c48b9dee76398978a@news.buckeye-express.com>
Source record: 130668
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

In article <IJzD9.3848$EY.3229@fe01>, w6dkn-nospam-@qsl.net says...
> "BDKING" <kingrat@buckeye-express.com> wrote in message
> news:MPG.1848900e38496e55989795@news.buckeye-express.com...
> > > And your callsign is?
> > >
> > > 73 de W6DKN
> > >
> > >
> >
> > I've had two, a Novice 30 years ago, and one of them hated No code techs
> > since 91, and I won't post them here, for various reasons. I'm sure
> > you'll trash me, but I have good reason not to. But I did the 5 WPM CW
> > thing already, and maybe I'll upgrade one of these days, but it doesn't
> > have the draw it did ten years ago. Too bad...
> >
>
> So, in effect, you have never experienced anything beyond basic entry level
> operation? That's not much scope of experience to be basing such a negative
> view of the hobby on.
>
> Since you claim to have passed the 5 WPM element in the past, all you have
> to do is show proof of it to the examiner when you take your General (or
> higher) written element and you will have your HF ticket. Isn't that what
> you wanted, elevated privileges without having to take the code test?
>
> 73 de W6DKN
>
>
>
>

Yeah, it's what I wanted, but the hunger for it has passed by. I still
listen a lot, since I can do something else while doing it. If I have
the cash to buy an HF rig, I won't buy it, I will buy a new PC,or upgrade
one instead. Maybe that will change someday, who knows...

BDK

3325. Yagi question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 11:16:05 UTC
From: Cholo <cholo@2com.pl>
Message-ID: <as29jd$q78$1@news.tpi.pl>
Source record: 130564

Hi,
I want to project Yagi for 460MHz using Quickyagi 4.0.
The boom for this antenna will be made from nonconductor.

I wonder if calculations for this type of boom will be accurate (using
QuickYagi)?
I've set "Options->Element Compensation->Boom Compensation"
to "Element placement = On the boom" and "Boom type = round".

Thanks in advance,
Rob

3326. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 11:50:54 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <as2biu$pf1$1@knossos.btinternet.com>
Source record: 130565

> Reg, if one models a 1/4WL Inv-L, 1/16WL vertical and 3/16WL horizontal,
the
> horizontally polarized radiation and vertically polarized radiation have
about
> the same dBi gain even though the high voltage part of the antenna is
three
> times as long as the high current part.

==========

Sorry Cecil, I don't understand. But just tell me what general conclusion
you draw from it?

Reg, G4FGQ

3327. Re: F.S. New Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 12:01:20 UTC
From: Martin VK2UMJ <vk2umj@REMOVEyahoo.com.au>
Message-ID: <bm2F9.84875$g9.240066@newsfeeds.bigpond.com>
Source record: 130566
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Odette Brown" <au273@freenet.carleton.ca> wrote in message
news:3DE446FC.78A66A65@freenet.carleton.ca...
> > For Sale,
>
> New Linear Amplifier HF-2500
>
> If interested please E-Mail me.
>

Perhaps some more info for those that don't have the complete info on this
amp would be handy, such as Make, Power, Frequency Range, etc, etc,
etc......

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.423 / Virus Database: 238 - Release Date: 25/11/2002

3328. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 12:12:41 UTC
From: "phil :)" <just_rtfm@yahooREMOVETHIS.com>
Message-ID: <uu9djhbo88nuc2@corp.supernews.com>
Source record: 130567
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

> <blah blah?
>
> Chill out, Phil.
> Learn Perl -- "The duct tape that holds the internet together"

LOL... i looked at Perl... and then RAN! :D speaking of which... have you ever visited the "99 bottles of beer" site? check it out...

http://99-bottles-of-beer.ls-la.net/

3329. Re: F.S. New Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 12:24:42 UTC
From: "Stephen C. Robbins" <srobbinsNoSPaMDUDES@netacc.net>
Message-ID: <3de4b9e3$1@news.netacc.net>
Source record: 130568
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Martin VK2UMJ" <vk2umj@REMOVEyahoo.com.au> wrote in message
news:bm2F9.84875> Perhaps some more info for those that don't have the
complete info on this
> amp would be handy, such as Make, Power, Frequency Range, etc, etc,
> etc......
>
>

Nah. Anyone with a newsreader probably has a web browser and can just spend
5 seconds finding the web page at: http://www.command1.com/hf-2500.htm

3330. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 13:19:56 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0211270519.4a0a6e4d@posting.google.com>
Source record: 130469

Roy Lewallen <w7el@eznec.com> wrote in message news:<uu7l4gehcup81c@corp.supernews.com>...
> Unlike your designer, I do know what bias oscillators are and what
> they're for. But like him, I don't understand why one would be necessary
> or important for digital (by which I mean binary) recording. Why would
> you use one? Do hard and floppy disk drives use bias oscillators?
>
> Long ago I designed electronics for reading from and writing to a floppy
> disk, and didn't use a bias oscillator. It performed about at the state
> of the art at the time, but maybe I was missing something. . .
>

Beat me to it, Roy.

Of all the magnetic recording formats I have worked with/on (5 track reel, 7 track reel, 8 track reel, 8 inch floppy, 5 inch floppy, 3 inch floppy, 1/2 inch cartridge, big hard disc, little hard disc) none had bias oscillators. (hmmm. Wonder if I could renew my Trident disc repair certification? Its a bit out of date---like 20 years. Is Century data still in business?)

As you pointed out they aren't needed for binary data. The magnetic coating is specially formualted to be saturated. That is, the magnetic field is all one way or the other. It also has quite a bit of hysterisis when switching.

Never worked with analog recording, but I would guess that the magnetic coating is formulated to minimize hysterisis. What is actually put on the tape is the 'bias' signal, which is modulated (FM?) with the analog data.

Jim
N8EE

3331. Making my own 10 meter antenna (Newbie)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 13:23:13 UTC
From: dgilbert@nascospg.com
Message-ID: <a235b6a6.0211270523.208bb511@posting.google.com>
Source record: 130470

I have been into 2 meters for a few years now and am thinking of getting into 10 meters. I was wondering the feasibility of building my own antenna to be put atop my TV antenna tower in back of my house.

I work on lots of metal projects in my garage and have a fair amount of tools including a mig welder. I also have access to lots of new steel square tubing as well as solid round steel from about 1/4 inch diameter up to 1/2 inch or so.

Would it be possible to make my own whip out of steel as an antenna? What length would be the best performance on just 10 meters? DO I need an antenna tuner?

Sorry for all the questions, I am relatively new at this.

3332. Re: HB9CV designs ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 13:35:02 UTC
From: "j. keith carter" <j.keith.carter@sympatico.ca>
Message-ID: <3DE4CA06.E6976145@sympatico.ca>
Source record: 130471

Doug: It was written up in the RSGB VHF UHF manual 4th edition. I think
that it was favoured by the Europeans and your best bet would be on some of
their sites. Especially some of the UK sites. Keith, VE3JKC.

Douglas Snowden wrote:

> I just found an old reference to the HB9CV 2 element beam. Looks like
> a couple of elements connected together via a phasing line. Looking on
> the web I don't see much. Anyone played with this? I'd like to play
> with one using all aluminum if it is possible. Maybe start on 10m.
>
> Doug N4IJ

3333. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 13:44:38 UTC
From: "mkelly@powerup.com.au" <mkelly@powerup.com.au>
Message-ID: <3DE4CC46.5C127CBB@powerup.com.au>
Source record: 130472

Sorry all, but don't we all use whatever fits in the lot we
live in?

For myself, it is a 40m delta loop. Load it and away you go!

Reg Edwards wrote:
>
> > Reg, if one models a 1/4WL Inv-L, 1/16WL vertical and 3/16WL horizontal,
> the
> > horizontally polarized radiation and vertically polarized radiation have
> about
> > the same dBi gain even though the high voltage part of the antenna is
> three
> > times as long as the high current part.
>
> ==========
>
> Sorry Cecil, I don't understand. But just tell me what general conclusion
> you draw from it?
> ---
> Reg, G4FGQ

--
****
* Murray Kelly vk4aok mailto://mkelly@powerup.com.au *
* 29 Molonga Ter. / Graceville/ QLD. 4075/ Australia *
* ph/fax Intl+ 61 7 3379 3307 *
****

3334. Re: Making my own 10 meter antenna (Newbie)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 14:06:57 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <wdDkPVd5JX6A03Lo66L+WdU7EAqw@4ax.com>
Source record: 130473

dgilbert@nascospg.com (Don) wrote:

>I have been into 2 meters for a few years now and am thinking of
>getting into 10 meters. I was wondering the feasibility of building my
>own antenna to be put atop my TV antenna tower in back of my house.
>
>I work on lots of metal projects in my garage and have a fair amount
>of tools including a mig welder. I also have access to lots of new
>steel square tubing as well as solid round steel from about 1/4 inch
>diameter up to 1/2 inch or so.
>
>Would it be possible to make my own whip out of steel as an antenna?
>What length would be the best performance on just 10 meters? DO I need
>an antenna tuner?
>
>Sorry for all the questions, I am relatively new at this.

You're starting from such a basic orientation, you might go to http://www.arrl.org and order their book, "The ARRL Antenna Book." It has great numbers of homebrew antenna projects you can apply to 10 meters or any other band.

Bob
k5qwg

3335. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 14:30:39 UTC
From: Bill Ogden <ogden@us.ibm.com>
Message-ID: <3DE4D70F.718FC50E@us.ibm.com>
Source record: 130474

Thank you, George. That is the type of practical information I was looking for. Based on reports like yours (and a very vague "hunch" of mine), I will try placing the half-sloper at the top of the middle section of the TX-455. That will allow the top section and the mast/boom of the quad to act as loading --- although I suspect that term might not be 100% appropriate.

Most write-ups mention that changing the wire angle usually affects the feedpoint impedance.

You have obviously done some experimenting. Have you ever tried using two wires of slightly different lengths for the same band? Say, one for 3.6 MHz and one for 3.8 MHz?

With the narrow 160m bandwidth and the best match on 80 being 4:1, I assume a lot of your operation is at rather high SWRs via an antenna tuner. Have you had any significant trouble using 500W - 1 KW? What type of coax are you using? (I am planning on using RG-213.)

Thanks,

Bill
W2WO

3336. LOOP Antenna - HV Corona??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 14:42:17 UTC
From: Dick <boleyd@yahoo.com>
Message-ID: <dR4F9.2975$ov6.1524758@news2.news.adelphia.net>
Source record: 130475

I have a loop antenna that works quite well. I use a piece of 9913 coax as the capacitor to tune it. My problem is that I have corona at the tip of the coax center conductor. Does anyone have any info on material I could use to eliminate the corona?

Regards - Dick N3HKN

3337. Re: Making my own 10 meter antenna (Newbie)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 15:22:09 UTC
From: DHH <dhhnews0@hotmail.com>
Message-ID: <Kq5F9.63104$e%.1008612@news20.bellglobal.com>
Source record: 130476

see www.w4rnl.com for ten meter construction etc
"Don" <dgilbert@nascospg.com> wrote in message
news:a235b6a6.0211270523.208bb511@posting.google.com...
> I have been into 2 meters for a few years now and am thinking of
> getting into 10 meters. I was wondering the feasibility of building my
> own antenna to be put atop my TV antenna tower in back of my house.
>
> I work on lots of metal projects in my garage and have a fair amount
> of tools including a mig welder. I also have access to lots of new
> steel square tubing as well as solid round steel from about 1/4 inch
> diameter up to 1/2 inch or so.
>
> Would it be possible to make my own whip out of steel as an antenna?
> What length would be the best performance on just 10 meters? DO I need
> an antenna tuner?
>
> Sorry for all the questions, I am relatively new at this.

3338. Re: Making my own 10 meter antenna (Newbie)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 15:25:00 UTC
From: DHH <dhhnews0@hotmail.com>
Message-ID: <pt5F9.63106$e%.1009175@news20.bellglobal.com>
Source record: 130477

oops - here is the correct URL
www.cebik.com/a10/anta.html

"Don" <dgilbert@nascospg.com> wrote in message
news:a235b6a6.0211270523.208bb511@posting.google.com...
> I have been into 2 meters for a few years now and am thinking of
> getting into 10 meters. I was wondering the feasibility of building my
> own antenna to be put atop my TV antenna tower in back of my house.
>
> I work on lots of metal projects in my garage and have a fair amount
> of tools including a mig welder. I also have access to lots of new
> steel square tubing as well as solid round steel from about 1/4 inch
> diameter up to 1/2 inch or so.
>
> Would it be possible to make my own whip out of steel as an antenna?
> What length would be the best performance on just 10 meters? DO I need
> an antenna tuner?
>
> Sorry for all the questions, I am relatively new at this.

3339. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 16:00:38 UTC
From: OC_CAM's_Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE4EC26.1172CB48@ieee.org>
Source record: 130478

Reg Edwards wrote:
> Sorry Cecil, I don't understand. But just tell me what general conclusion
> you draw from it?

If all parts of an antenna radiate equally, shouldn't an antenna that is half vertical and half horizontal radiate equal amounts of horizontally and vertically polarized radiation?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3340. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 16:15:11 UTC
From: K�HB <k�hb@arrl.DOTORG>
Message-ID: <jc6F9.3604$yy.501747@newsread1.prod.itd.earthlink.net>
Source record: 130479
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"phil :)" <just_rtfm@yahooREMOVETHIS.com> wrote

: LOL... i looked at Perl... and then RAN!

Contrary to popular belief, Perl is user friendly. It just happens to be
very selective about who its friends are.

dit dit

Hans, K0HB

3341. Re: Making my own 10 meter antenna (Newbie)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 16:22:40 UTC
From: dt@dt.prohosting.com
Message-ID: <un0nvgey7.fsf@dt.prohosting.com>
Source record: 130480

One thing you could do that is very quick, cheap and inexpensive is buy a mobile whip CB antenna, cut it slightly shorter for 10 meters, then mount it with 3 or 4 sloping radials. I've done this with good results. You'll never have to worry about the wind.

If you're in the mood for something a little more elaborate, being a metal worker and all, you might be interested in a 3-band trapless vertical I put up on the web a few months ago.
http://dt.prohosting.com/hacks/antenna
It's a bit more trouble to make but it works on 10,15 and 20 meters that I know of. Embarrassingly, I still have no idea what it does or doesn't do on 12 meters or 17 meters. I do know that it doesn't like the CB band when tuned for 10,15,20.

Experimenting with antennas is just plain fun, and with some of the cool software you can get these days, you can have a reasonable idea of what is worth trying to build. Antennas for 10 meters don't have to be very large, so you don't need a lot of room or a lot of materials to make some pretty respectable performers.

Have fun and good luck!
David
http://www.qrz.com/n5izu

3342. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 17:23:37 UTC
From: Chuck <k8cpa*nospam*@arrl.net*nospam*>
Message-ID: <5rv9uu0b8k0im7gtlmmsbu57mvkv8pnsju@4ax.com>
Source record: 130481
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

On Wed, 27 Nov 2002 16:15:11 GMT, "K?HB" <k?hb@arrl.DOTORG> was
blabbling:

...
...
..."phil :)" <just_rtfm@yahooREMOVETHIS.com> wrote
...
...: LOL... i looked at Perl... and then RAN!
...
...Contrary to popular belief, Perl is user friendly. It just
happens to be
...very selective about who its friends are.
...
...dit dit
...
...Hans, K0HB

Hello Hans... you operate CW on 20 at all?

...
...

73
-Chuck K8CPA
REAL Ham's use 160, 75 and 40 meters!
REAL Ham's Use CW!
http://mywebpages.comcast.net/k8cpa/

3343. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 17:30:21 UTC
From: paulfriedman@attbi.com
Message-ID: <Ni7F9.156078$1O2.11231@sccrnsc04>
Source record: 130482
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Hans:

Good point; not a great point, but a good one. :)

Tow other languages (showing my age here) that I found equally
friend-selective: APL and whatever it is my wife speaks when she is mad.

Paul ab0si

"K&#65533;HB" <k&#65533;hb@arrl.DOTORG> wrote in message
news:jc6F9.3604$yy.501747@newsread1.prod.itd.earthlink.net...
>
>
> "phil :)" <just_rtfm@yahooREMOVETHIS.com> wrote
>
> : LOL... i looked at Perl... and then RAN!
>
> Contrary to popular belief, Perl is user friendly. It just happens to be
> very selective about who its friends are.
>
> dit dit
>
> Hans, K0HB
>
>
>

3344. Re: LOOP Antenna - HV Corona??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 17:36:12 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3de50729_1@news1.prserv.net>
Source record: 130483

Dick:
Two possible approaches. One is to make the conductor larger and shallower radius buy putting a conductive ball on the end of it. The other is to extend the insulation well beyond the conductor, although the poly. will break down fairly quickly. You need a bottle of the old General Cement Corona Dope which was used on TV high voltage problems. Or Glyptal. Or any high voltage varnish. Lots of coats.

Good luck.

--
Crazy George
Remove NO and SPAM from return address
"Dick" <boleyd@yahoo.com> wrote in message
news:dR4F9.2975$ov6.1524758@news2.news.adelphia.net...
> I have a loop antenna that works quite well. I use a piece of 9913 coax as
> the capacitor to tune it. My problem is that I have corona at the tip of
the
> coax center conductor. Does anyone have any info on material I could use
to
> eliminate the corona?
>
> Regards - Dick N3HKN
>
>
>

3345. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 17:49:24 UTC
From: richardharrison@webtv.net
Message-ID: <8811-3DE505A4-61@storefull-2314.public.lawson.webtv.net>
Source record: 130486

Roy Lewallen, W7EL wrote:
Why do you use one (a bias oscillator)?"

A magnetic tape only reproduces from magnetized areas. How small and distinct these areas are determines the information on the tape,

Recording quality depends on the equipment and how it is used. Tape speed and track width affect quality.

High frequencies are most likely to be distorted in the recording process. Whether an area represents a one or a zero has to be interpreted in recording and reproduction. The sharpness of determination depends on high frequency response.

Very high frequency bias is added to a tape to cut distortion of the signal. The bias assumes the distortion, not the signal.

Bias level is optimized for best h-f response.

Bias and compression techniques can produce quieter and more distinct signals than digitizing alone. I`ve read this from sources I consider reliable, but cannot attest from personal
experience.

Best regards, Richard Harrison, KB5WZI

3346. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 18:00:15 UTC
From: K&#65533;HB <k&#65533;hb@arrl.DOTORG>
Message-ID: <PK7F9.3730$yy.512193@newsread1.prod.itd.earthlink.net>
Source record: 130484
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Chuck" <k8cpa*nospam*@arrl.net*nospam*> wrote

:
: Hello Hans... you operate CW on 20 at all?
:

I've been known to.

73, Hans, K0HB

3347. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 18:07:28 UTC
From: Chuck <k8cpa*nospam*@arrl.net*nospam*>
Message-ID: <6d2auu0lbrsiuf9kijnaf3lgs3cshfjq00@4ax.com>
Source record: 130485
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

On Wed, 27 Nov 2002 18:00:15 GMT, "K?HB" <k?hb@arrl.DOTORG> was
blabbling:

..."Chuck" <k8cpa*nospam*@arrl.net*nospam*> wrote
...
...:
...: Hello Hans... you operate CW on 20 at all?
...:
...
...I've been known to.
...
...73, Hans, K0HB
...
...
...
...
...
...
...
...

okay, prior to posting that question, i had just finished a qso with a
guy in 7-land on 20 CW.

73
-Chuck K8CPA
REAL Ham's use 160, 75 and 40 meters!
REAL Ham's Use CW!
http://mywebpages.comcast.net/k8cpa/

3348. Re: HB9CV designs ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 19:05:26 UTC
From: "Alexander S. Wood" <alec_wood@dont.spam.me.ntlworld.com>
Message-ID: <FMsF9.675$k15.63273@newsfep1-gui.server.ntli.net>
Source record: 130428

Hi Doug,

I've built and uised the HB9CV antenna on 2m and also some time ago on 27MHz. It's basically very similar to the "ZL Special" both in function and performance. The main advantage is that you get some directivity without much boom length. This makes it a good antenna for portable use.

The 2m versions are commonly used for DF, built from stiff wire. My 27Mhz version was built with aluminium salvaged from an old 3 element beam. Performance is nowhere near a yagi, the main lobe is very wide, but that's the price you pay for a short beam.

Kind regards

Alec Wood M1BNK
Teesside UK

"Douglas Snowden" <snowden@peoplepc.com> wrote in message news:uu8419fpappl84@corp.supernews.com...
> I just found an old reference to the HB9CV 2 element beam. Looks like
> a couple of elements connected together via a phasing line. Looking on
> the web I don't see much. Anyone played with this? I'd like to play
> with one using all aluminum if it is possible. Maybe start on 10m.
>
>
> Doug N4IJ
>
>
>
>

3349. Re: HB9CV designs ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 19:05:26 UTC
From: "Alexander S. Wood" <alec_wood@dont.spam.me.ntlworld.com>
Message-ID: <4W8F9.2706$ml3.79251@newsfep1-gui.server.ntli.net>
Source record: 130488

Hi Doug,

I've built and uised the HB9CV antenna on 2m and also some time ago on 27MHz. It's basically very similar to the "ZL Special" both in function and performance. The main advantage is that you get some directivity without much boom length. This makes it a good antenna for portable use.

The 2m versions are commonly used for DF, built from stiff wire. My 27Mhz version was built with aluminium salvaged from an old 3 element beam. Performance is nowhere near a yagi, the main lobe is very wide, but that's the price you pay for a short beam.

Kind regards

Alec Wood M1BNK
Teesside UK

"Douglas Snowden" <snowden@peoplepc.com> wrote in message news:uu8419fpappl84@corp.supernews.com...
> I just found an old reference to the HB9CV 2 element beam. Looks like
> a couple of elements connected together via a phasing line. Looking on
> the web I don't see much. Anyone played with this? I'd like to play
> with one using all aluminum if it is possible. Maybe start on 10m.
>
>
> Doug N4IJ
>
>
>
>

3350. Re: Making my own 10 meter antenna (Newbie)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 19:15:40 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211271115.38907f3a@posting.google.com>
Source record: 130487

dgilbert@nascospg.com (Don) wrote in message
news:<a235b6a6.0211270523.208bb511@posting.google.com>...
> I have been into 2 meters for a few years now and am thinking of
> getting into 10 meters. I was wondering the feasibility of building my
> own antenna to be put atop my TV antenna tower in back of my house.
>
> I work on lots of metal projects in my garage and have a fair amount
> of tools including a mig welder. I also have access to lots of new
> steel square tubing as well as solid round steel from about 1/4 inch
> diameter up to 1/2 inch or so.
>
> Would it be possible to make my own whip out of steel as an antenna?
> What length would be the best performance on just 10 meters? DO I need
> an antenna tuner?

It's possible, but steel is not the best conductor for rf, and it will
rust fast. I would try to scrounge some aluminum. Actually, probably
the easiest way to build a 10m vertical is probably to find an old
junk CB antenna and retune it for 10m.
But if you can't find one, 1/4 wave ground planes, 1/2 wave verticals,
or 5/8's wave ground planes are all easy to build. I'd go with the 1/2
wave if you don't want radials. MK

http://web.wt.net/~nm5k/

3351. Re: LOOP Antenna - HV Corona??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 20:08:57 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <u-GcnXrJu6l0uHigXTWcqg@comcast.com>
Source record: 130489

"Crazy George" <munschNO@attglobal.net.SPAM> wrote in message
news:3de50729_1@news1.prserv.net...
....> The other is to extend the insulation well beyond the conductor,
.....

I would melt the extended insulation so it makes a water and air tight seal.

Tam/WB2TT

3352. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 20:49:57 UTC
From: K3UD <geomac@hopkinsville.net>
Message-ID: <geomac-233812.14495727112002@news.uswest.net>
Source record: 130490

In article <3DE4D70F.718FC50E@us.ibm.com>,
Bill Ogden <ogden@us.ibm.com> wrote:

> Thank you, George. That is the type of practical information I was looking
> for. Based on reports like yours (and a very vague "hunch" of mine), I will
> try placing the half-sloper at the top of the middle section of the TX-455.
> That will allow the top section and the mast/boom of the quad to act as
> loading --- although I suspect that term might not be 100% appropriate.
>
> Most write-ups mention that changing the wire angle usually affects the
> feedpoint impedance.
>
> You have obviously done some experimenting. Have you ever tried using two
> wires of slightly different lengths for the same band? Say, one for 3.6 MHz
> and one for 3.8 MHz?
>
> With the narrow 160m bandwidth and the best match on 80 being 4:1, I assume a
> lot of your operation is at rather high SWRs via an antenna tuner. Have you
> had any significant trouble using 500W - 1 KW? What type of coax are you
> using? (I am planning on using RG-213.)
>
> Thanks,
>
> Bill
> W2WO

Bill,

You are correct when you say that the wire angle affects impedance and
it is an accepted way to tune a half sloper. The height above ground of
the end of the wire also can make a considerable difference in tuning,
in my experience more so than the wire angle.

Your comments about two wires cut for different parts of the band is
interesting. Although I have never done it, I have seen it illustrated
in the ARRL antenna handbook (1988) and I think it is mentioned in
W1FB's antenna book that was an ARRL publication back in the early 90s.
It is claimed that you get a 2/1 or less SWR across the band using this
configuration on 75/80 meters. Sounds like one of my next
projects......

Yes, I do use an antenna tuner on 75 and on 160 if I make large
excursions. I have no problems with my 125 watts using a Drake MN4C tuner
and I do not need a tuner on 40 where I get a 2/1 or less swr across
most of the band. My tower and beams top out as 40 feet and I guess it
is possible that if I was able to hang the sloper from a higher tower it

might positively affect 75 meter SWR. I am using 50 feet of RG8/U (tower outside the window, shack just inside... no need for long runs) and I don't think that even at a 3 or 4/1 SWR on 75, I am suffering excessive loss.

If you do not want to go the Alpha Delta DX-B route, just try a single 1/4 wave wire for a given band, insulate the radiator and clamp the coax shield to the tower leg and see where it tunes up. I have noticed that 40 meter length comes out close to formula predictions but 75 meter length is usually shorter than what you would expect.

These are good performing and easy antennas to build and install.

Good luck with your project

73
George
K3UD

3353. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 22:12:35 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <1fdauu4mbeftl2uniqu2svstkqeb4ao0po@4ax.com>
Source record: 130491

On Tue, 26 Nov 2002 12:07:47 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Unlike your designer, I do know what bias oscillators are and what
>they're for. But like him, I don't understand why one would be necessary
>or important for digital (by which I mean binary) recording. Why would
>you use one? Do hard and floppy disk drives use bias oscillators?
>
>Long ago I designed electronics for reading from and writing to a floppy
>disk, and didn't use a bias oscillator. It performed about at the state
>of the art at the time, but maybe I was missing something. . .
>
>Roy Lewallen, W7EL
>

Hi Roy,

I will expand on bias virtues and uses.

The bias adds a self demagnetization (de-gaussing) component to the head's operation. Now this may sound counter-intuitive, but heads suffer from becoming magnetized by the constant flow of tape past them. This in turn creates a situation where the head then erases some of the signal being recorded, and worse, erasing content when it simply is reading. Through the addition of the bias, the head is constantly being de-gaussed at a frequency that is higher than the head's capacity to record (the frequency never becomes a component of the recording).

Insofar as fidelity goes, the oscillator adds a modulation product to the content being recorded, but as the tape draws along and away from the gap, the bias continues at a declining level (the bias modulation cannot persist through the recorded waveform) in comparison to the data being recorded (much longer wavelength). The net result is that the head's geometry (specifically the wavelength relationship of the gap) ceases to impose the modulation and the data amplitude begins to smooth out by the time it is impressed upon the tape. In this way, the modulation product forces the electronics into a linear portion of their operation that would not normally be attained except through the loudest of signals in the data. Thus the bias also works in the conventional sense of setting an amplifier's working region.

Without the bias, the high frequency components of the data are attacked by two processes, loss of fidelity through poor reproduction (a biased recording has vastly more bandwidth) and degradation through magnetic artifacts (as already described). It is largely the

artifacts that seal the fate through a poor signal+noise/noise ratio combined with restricted bandwidth.

I must add that this tape transport ran at far slower speeds than most here have ever used (7/8 ips I recall vaguely).

My background began in linear design, and I was move by market forces to do linear interface (tedious digital design is best left to computers). As the linear traditions faded from the academic perspective, it began to show in the quality of linear designs by solely digital trained designers - not too hot. True, they could burn a PAL, or design a mask (something for which I had absolutely no interest), but when I pointed out Shannon's law about data degradation and noise, all I got was "We aren't recording music - just digital data."

This came at a time when I was looking over their shoulders watching them trying to tease data out of the noise of a KLM jet recording that took an unscheduled dive into terra firma. This was a case where KLM could not read their own data and sent it back to the "factory" for sifting. I could only shudder, not only for the sake of those who bought it (literally and figuratively), but also for the lack of knowledge that could have increased the data throughput.

I was also solicited to review the Flight Data recorder data for TWA 800. The concern there was that the few jangled bytes of data appearing at the point PRIOR to air-frame breakup could have been evidence of missile strikes. Yes, it is arguable that they could have - but that noise was also within specs (terrible as they were). The report submitted by all the agencies had some rather bogus interpretations entered into the analysis to cover the critic's concern. It didn't satisfy them, and the interpretations certainly were not science nor engineering.

This last, in fact, brings us back around to the current World issue of Ossama, Saddam, and such. The conspiracy theory about missiles taking down TWA 800 had a reasonable genesis: we had shot down an Iranian civil airliner over Iran back during the first Iraqi fight. TWA 800 was payback and reported as such throughout the world - except here of course (not an uncommon insularity in our news). They also had the technology to do it, after-all Poindexter and Ollie North had sold them the missiles capable of taking down TWA 800.

So, we have motive, opportunity, ability, and conspirators eager to supply them. Put such patriots as Ollie and Pointdexter (both felons) against the wall? No, it was simpler to say a spark did it (never happened before, and hasn't happened since) in the most safe of aviation fuels. It pays to have equal minded friends in high places.

73's
Richard Clark, KB7QHC

3354. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 22:22:13 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <7vgauuc1aat0b5110gib2k309lomejg8td@4ax.com>
Source record: 130492

On Tue, 26 Nov 2002 13:42:59 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Richard Clark, KB7QHC wrote:
>"I never penetrated that iron curtain."
>
>Richard Clark must not have lectured the specifications guy on square
>corners and all the odd-harmonics abrupt changes demand for transmission
>and reproduction.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

I did, but no one seemed to heed that in the transition from data to
tape, they had forever left the digital world behind to enter the
noise and distortion of a linear (tape) real world.

Sure it worked, but they failed to analyze: how well? The product in
the marketplace and in constant use proved them adequate - until KLM
(see other posting to Roy). It is a bit specious to say it was a
suitable design, when 99.999999% of the data is never seen, much less
analyzed. It is ingenuous to say it was suitable when your customers
who encounter that 0.000001% of the time have to send their tape back
to the "factory" for data cleaning, sifting, and download.

73's
Richard Clark, KB7QHC

3355. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 22:37:54 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <kihauuslgr3rc4efe8oiuqnma9q1jehn8r@4ax.com>
Source record: 130493

On 27 Nov 2002 05:19:56 -0800, jim.bolinger@lintek.aeroflex.com (JLB) wrote:

>
>As you pointed out they aren't needed for binary data. The magnetic
>coating is specially formualted to be saturated. That is, the
>magnetic field is all one way or the other. It also has quite a bit
>of hysterisis when switching.
>
>Never worked with analog recording, but I would guess that the
>magnetic coating is formulated to minimize hysterisis. What is
>actually put on the tape is the 'bias' signal, which is modulated
>(FM?) with the analog data.
>
>Jim
>N8EE

Hi Jim,

I've worked with all types of magnetic storage (even bubbles) and have calibrated NAGRA recorders. I once constructed a length of tape with a fixed frequency, and had to demark it by scraping off the coating (for a precision fixed interval) at both ends. Even with the tape clear (literally) of oxide, there was still a measurable signal. That idea was a goner.

The Bias is about 30-40KHz and is impressed on top of the data - not mixed a la FM. You are thinking about VCR recording. One method used by one of the big Reel-to-Reel builders (Roberts) was called the cross head bias. They used a separate bias head sitting opposite the record head. For more discussion of the bias, consult my posting to Roy.

You are also comparing Digital recorders (multi-track, with one bit per track) running at elevated speeds (surely faster than 7/8 ips) to an 8-track cassette deck quality design (less the quality of HiFi much less stereo and only one track, unfortunately). You might also reflect back to the service required of Digital recorders (like head de-gaussing and tape cleaning) for more comparisons where the flight data recorders see none of that activity.

73's
Richard Clark, KB7QHC

3356. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 22:38:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uuaib813adpl17@corp.supernews.com>
Source record: 130494

So hard disk drives do have bias oscillators? Do you have any idea what frequency they run at?

Roy Lewallen, W7EL

Richard Clark wrote:
>
> Hi Roy,
>
> I will expand on bias virtues and uses.
> . . .

3357. Re: Making my own 10 meter antenna (Newbie)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 23:24:56 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <kojauu4bmf07l7c4hnb1hnjn07rvodoj5q@4ax.com>
Source record: 130495

On 27 Nov 2002 05:23:13 -0800, dgilbert@nascospg.com (Don) wrote:

>I have been into 2 meters for a few years now and am thinking of
>getting into 10 meters. I was wondering the feasibility of building my
>own antenna to be put atop my TV antenna tower in back of my house.

10M is an easy way into HF antennas.

>
>I work on lots of metal projects in my garage and have a fair amount
>of tools including a mig welder. I also have access to lots of new
>steel square tubing as well as solid round steel from about 1/4 inch
>diameter up to 1/2 inch or so.

You might want to brush up your aluminum skills, otherwise your
instinct is right on.

>
>Would it be possible to make my own whip out of steel as an antenna?
>What length would be the best performance on just 10 meters? DO I need
>an antenna tuner?

Use stainless if you want to work it yourself. As 10M is a big band,
one man's advice about how long is another man's SWR.

The better part of designing an antenna is so you won't need a tuner
;-)
... but that doesn't always happen :-(
>
>Sorry for all the questions, I am relatively new at this.

Hi OM,

As the others have suggested, CB products can be used for stock, or
simply take a picture and reduce the dimensions to 10/11th's. This is
the best method for complex designs like a yagi. I've whacked down CB
whips for 6M - simple, and quite stiff.

Or presuming a simple vertical, do it the old fashioned way: nibble at
the tip till your SWR drops (how I got to 6M). Be careful if you
undershoot the minima, and it starts to climb with that last snip -
just let it be (and that will teach you not to take big nibbles the
next time).

This was for mobile operation, and I had nothing else to vary for
tuning. With your position up higher and on a tower, you can also
play with the angle of the ground plane (radials' angle to the
horizontal) to make up for marginal vertical heights (the one you

nibbled too far). You might want to simply tack something together and tune it first as a template for your more serious effort. There will be little performance variation between them.

73's
Richard Clark, KB7QHC

3358. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-27 23:35:49 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <58lauuoc77g0o9dpg451jn7bf5sb1kjua4@4ax.com>
Source record: 130496

On Wed, 27 Nov 2002 14:38:36 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>So hard disk drives do have bias oscillators? Do you have any idea what
>frequency they run at?
>
>Roy Lewallen, W7EL
>
>Richard Clark wrote:
>>
>> Hi Roy,
>>
>> I will expand on bias virtues and uses.
>> . . .

Hi Roy,

Do they have bias oscillators, I haven't the vaguest idea.

The period of history I am speaking of was in an age when 8 inch
floppies were standard and data at home was stored from a VIC-20 to a
cheap tape deck (which had no bias either, but ran at 3.5 ips).

73's
Richard Clark, KB7QHC

3359. Re: LOOP Antenna - HV Corona??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 00:05:17 UTC
From: k9sqg@aol.com
Message-ID: <20021127190517.29321.00007374@mb-mg.aol.com>
Source record: 130498

Dick,

Spray the area with clear plastic spray. After it dries, coat it with RTV silicon rubber.

73s,

Evan

3360. Re: Making my own 10 meter antenna (Newbie)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 00:41:16 UTC
From: "Dee D. Flint" <deehays@qix.net>
Message-ID: <MCdF9.3545$4j5.1987716@newssvr28.news.prodigy.com>
Source record: 130497

"Don" <dgilbert@nascospg.com> wrote in message
news:a235b6a6.0211270523.208bb511@posting.google.com...
>
> Would it be possible to make my own whip out of steel as an antenna?
> What length would be the best performance on just 10 meters? DO I need
> an antenna tuner?

Yes to both. BUT here's some things to consider. Steel is heavy and rusts easily unless painted. If the paint chips, it still rusts. Aluminum is a good choice as it doesn't rust and only weighs about 1/3 what steel weighs.

If the antenna is the correct design and length for the portion of 10 meters that you will be using, you won't need a tuner. As one of the others has suggested, get the ARRL antenna book. Also get an SWR meter and learn to use it as you will need this to determine if your antenna does match your radio for the desired frequency.

Dee Flint, N8UZE

3361. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 00:48:44 UTC
From: cheesecutter@webhideout.com
Message-ID: <fef386d5.0211271648.6fea57c1@posting.google.com>
Source record: 130499
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Chuck <k8cpa*nospam*@arrl.net*nospam*> wrote in message
news:<6d2auu0lbrsiuf9kijnaf3lgs3cshfjq00@4ax.com>...
> On Wed, 27 Nov 2002 18:00:15 GMT, "K?HB" <k?hb@arrl.DOTORG> was
> blabbling:
>
> ..."Chuck" <k8cpa*nospam*@arrl.net*nospam*> wrote
> ...
> ...:
> ...: Hello Hans... you operate CW on 20 at all?
> ...:
> ...
> ...I've been known to.
> ...
> ...73, Hans, K0HB
> ...
> ...
> ...
> ...
> ...
> ...
> ...
> ...
>
>
> okay, prior to posting that question, i had just finished a qso with a
> guy in 7-land on 20 CW.
>
>
>
> 73
> -Chuck K8CPA
> REAL Ham's use 160, 75 and 40 meters!
> REAL Ham's Use CW!
> http://mywebpages.comcast.net/k8cpa/

damn.......chuck's two way is back in business....what a
deal.....somebody slap me because i must be dreamin.....

3362. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 00:49:39 UTC
From: cheesecutter@webhideout.com
Message-ID: <fef386d5.0211271649.2950b97e@posting.google.com>
Source record: 130500
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

```
Chuck <k8cpa*nospam*@arrl.net*nospam*> wrote in message
news:<6d2auu0lbrsiuf9kijnaf3lgs3cshfjq00@4ax.com>...
> On Wed, 27 Nov 2002 18:00:15 GMT, "K?HB" <k?hb@arrl.DOTORG> was
> blabbling:
>
> ..."Chuck" <k8cpa*nospam*@arrl.net*nospam*> wrote
> ...
> ...:
> ...: Hello Hans... you operate CW on 20 at all?
> ...:
> ...
> ...I've been known to.
> ...
> ...73, Hans, K0HB
> ...
> ...
> ...
> ...
> ...
> ...
> ...
> ...
>
>
> okay, prior to posting that question, i had just finished a qso with a
> guy in 7-land on 20 CW.
>
>
>
> 73
> -Chuck K8CPA
> REAL Ham's use 160, 75 and 40 meters!
> REAL Ham's Use CW!
> http://mywebpages.comcast.net/k8cpa/

by the way chuckie.......why do you think anyone would want to talk to
you good buddy..???
```

3363. Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 02:09:44 UTC
From: amfowler@melbpc.org.au
Message-ID: <3de679cc.11108902@news.melbpc.org.au>
Source record: 130501

Skin Effect.

I came late into this discussion and didn't realise that
there were discussions on two quite different applications
of skin effect - 1. The use of a metal shield to stop r.f.
energy entering (a screened room) and 2. The current
distribution in a conductor carrying A.C. at any frequency.

1. No comment.

2. I said in an earlier posting that the current
flowing in a conductor decreases logarithmically from the
surface towards the centre of the conductor. I should have
said decreases exponentially, as others have pointed out.

I must stop making comments late at night when I'm
tired and not thinking clearly.

I've put a short note and a drawing that shows the
current distribution on a circular, solid, copper conductor
for a number of frequencies and conductor diameters. You
will find it at
http://member.melbpc.org.au/~amfowler/skinefct.htm

From an earlier posting:

>>Suppose we are talking about a length of 16 guage
>>1/2 in diam copper tube whhich has been wound into
>>a coil.

>>If the ends of the tube are open,it does not
>>matter if you connect the lead to the inner or the >>outer surface of the tube.

>In practice that's true. In order to make a
>connection to the inside, you have to poke a wire
>inside the tube. Then you have a co-axial line
>inside the tube which will support current flow on
>the inside. You'll end up with essentially the
>impedance of the short length of co-ax in series
>with the coil since this is the path that the
>current on the inside will take to the outside.

You are suggesting that the current will flow from the
connection point back to the end of the tube along the inner
surface, across the thickness of the tube, then along the
outer surface.

Think about this carefully. In effect this path would have a significant impedance.

There seems to be a misconception that the current cannot flow directly from the point of connection inside the tube to the outer surface.

Think about it this way. Take a long straight conductor carrying an r.f. current. Now disconnect it, make a small hole in a piece of copper sheet, slide it along the wire and solder in place (both sides. Connect the wire back into the circuit.

Now does the current flow up to the sheet, flow out over one side of the sheet, across the edge, back down the other side then continue along the wire, or simply continue along the wire, through the disk and out the other side. Why?

Alan

3364. poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 02:17:13 UTC
From: llcondon@earthlink.net
Message-ID: <32759ff4.0211271817.69ae57f2@posting.google.com>
Source record: 130502

I live in the mountains of north central PA (loacted in Allegeny National Forest). I am interested in suggestions for improving AM radio reception. Currently, I get little reception. I am interested in picking up AM stations in New York City, Philadelphia, Pittsburgh and Cleveland.

Electricity is not available. I have to depend on battery power.

Does anyone have suggestions on a type of radio and antenna to improve my reception.

Thanks.

3365. Help with AM Radio Reception

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 02:29:32 UTC
From: llcondon@earthlink.net
Message-ID: <32759ff4.0211271829.f7cc45@posting.google.com>
Source record: 130503

I live in north central PA (Allegheny National Forest area). I have no electricity. I get liitle radio reception. I am interested in suggestions for improving AM radio receptions for stations in New York City, Philadelphia, Pittsburg and Buffalo.

I am requesting help on the type of radio and antenna required to get reception from these cities.

thanks

3366. Re: Yagi question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 02:41:01 UTC
From: k9opo@comteck.qlfit.com
Message-ID: <3de5812c.28464302@news.comteck.com>
Source record: 130506

"Cholo" <cholo@2com.pl> wrote:

>Hi,
>I want to project Yagi for 460MHz using Quickyagi 4.0.
>The boom for this antenna will be made from nonconductor.
>
>I wonder if calculations for this type of boom will be accurate (using
>QuickYagi)?
>I've set "Options->Element Compensation->Boom Compensation"
>to "Element placement = On the boom" and "Boom type = round".

I'm not familar with the program but it should have an option for
conductive vs. non-conductive boom. That has a non-trivial effect on
element length depending on how the elements are mounted.

W1JR and K1FO wrote some great articles in Ham Radio and QST on the
subject of yagi design back in the late 80-'s to early 90's. One or
the other addressed this topic.

Roger Grady k9opo@comteck.qlfit.com
To reply by email, remove "qlfit." from address

3367. Pfeiffer Quad Square Orientation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 03:09:10 UTC
From: nat.gurumoorthy@ubicom.com
Message-ID: <41325e56.0211271909.516f901a@posting.google.com>
Source record: 130504

Hi,
Here is my attempt to design a 2 element Pfeiffer Quad. A Pfeiffer
Quad is a reduced size quad which uses Shortened transmission line
stubs at the Wire Spreader junctions to achieve tuning. What follows
is my NEC input file

---------- Snip Here -----------------------------
```
CM Pfeiffer Quad Square Orientation for 20 Meter
CM Design Nat
CM 11/27/2002
CM C:\NEC\TEMP.INP
CE
GW 1 1 -1219.2 2170.2 9760.3 -1219.2 2140.3 9790.2 3
GW 2 1 -1219.2 2140.3 9790.2 -1219.2 2020.3 9790.2 3
GW 3 11 -1219.2 2020.3 9790.2 -1219.2 -2020.3 9790.2
3
GW 4 1 -1219.2 -2020.3 9790.2 -1219.2 -2140.3 9790.2
3
GW 5 1 -1219.2 -2140.3 9790.2 -1219.2 -2170.2 9760.3
3
GW 6 1 -1219.2 -2170.2 9760.3 -1219.2 -2170.2 9640.3
3
GW 7 11 -1219.2 -2170.2 9640.3 -1219.2 -2170.2 5599.7
3
GW 8 1 -1219.2 -2170.2 5599.7 -1219.2 -2170.2 5479.7
3
GW 9 1 -1219.2 -2170.2 5479.7 -1219.2 -2140.3 5449.8
3
GW 10 1 -1219.2 -2140.3 5449.8 -1219.2 -2020.3 5449.8
3
GW 11 11 -1219.2 -2020.3 5449.8 -1219.2 2020.3 5449.8
3
GW 12 1 -1219.2 2020.3 5449.8 -1219.2 2140.3 5449.8
3
GW 13 1 -1219.2 2140.3 5449.8 -1219.2 2170.2 5479.7
3
GW 14 1 -1219.2 2170.2 5479.7 -1219.2 2170.2 5599.7
3
GW 15 11 -1219.2 2170.2 5599.7 -1219.2 2170.2 9640.3
3
GW 16 1 -1219.2 2170.2 9640.3 -1219.2 2170.2 9760.3
3
GW 17 1 1219.2 2170.2 9760.3 1219.2 2140.3 9790.2 3
GW 18 1 1219.2 2140.3 9790.2 1219.2 2020.3 9790.2 3
```

```
GW 19 11 1219.2 2020.3 9790.2 1219.2 -2020.3 9790.2
3
GW 20 1 1219.2 -2020.3 9790.2 1219.2 -2140.3 9790.2
3
GW 21 1 1219.2 -2140.3 9790.2 1219.2 -2170.2 9760.3
3
GW 22 1 1219.2 -2170.2 9760.3 1219.2 -2170.2 9640.3
3
GW 23 11 1219.2 -2170.2 9640.3 1219.2 -2170.2 5599.7
3
GW 24 1 1219.2 -2170.2 5599.7 1219.2 -2170.2 5479.7
3
GW 25 1 1219.2 -2170.2 5479.7 1219.2 -2140.3 5449.8
3
GW 26 1 1219.2 -2140.3 5449.8 1219.2 -2020.3 5449.8
3
GW 27 11 1219.2 -2020.3 5449.8 1219.2 2020.3 5449.8
3
GW 28 1 1219.2 2020.3 5449.8 1219.2 2140.3 5449.8 3
GW 29 1 1219.2 2140.3 5449.8 1219.2 2170.2 5479.7 3
GW 30 1 1219.2 2170.2 5479.7 1219.2 2170.2 5599.7 3
GW 31 11 1219.2 2170.2 5599.7 1219.2 2170.2 9640.3 3
GW 32 1 1219.2 2170.2 9640.3 1219.2 2170.2 9760.3 3
GW 33 8 2112676.1 0 7620 2112676.1 240 7620 3
GS 0 0 0.001
GE
GN -1 0 0 0 4 0.001 0 0 0 0
EX 0 11 6 0 1 0
TL 1 1 33 1 450 1.39 0 0 10000000000 10000000000
TL 5 1 33 2 450 1.39 0 0 10000000000 10000000000
TL 9 1 33 3 450 1.39 0 0 10000000000 10000000000
TL 13 1 33 4 450 1.39 0 0 10000000000 10000000000
TL 17 1 33 5 450 1.6 0 0 10000000000 10000000000
TL 21 1 33 6 450 1.6 0 0 10000000000 10000000000
TL 25 1 33 7 450 1.6 0 0 10000000000 10000000000
TL 29 1 33 8 450 1.6 0 0 10000000000 10000000000
FR 0 1 0 0 14.2 0
PQ -1 0 0 0
PT -1 0 0 0
RP 0 360 1 1001 0 0 1 6 1000
EN
```

---------- Snip Here ----------

Wires 1-16 are the director 17-32 are the reflector. Wire 33 is 100
wavelenghts away to act as end point for the transmission lines.
The first 4 Transmission lines are equal length stubs on the Director
the next 4 are on the reflector. The Spreader length is 10 feet. All
the wire data above is in mm. There is a scaling card to reduce it to
meters. The only parameters that you can play with is the director and
reflector transmission line lengths.

Questions: 1) Is the transmission lines stub properly modeled.
2) Is the specification of the wires close to the spreader
violate any NEC rules
3) Is the model adequately segmented.

Observations: 1) Changing the Director TL length has very little
influence on forward gain. It has huge influence on the input
impedence.
2) Changing the reflector TL length changes Gain, F/B
ratio as well as input impedence.

Don't know about the Bandwidth behaviour of the model.

Here is some results for your enjoyment

Dir TL Len	Ref TL Len	Fwd Gain dbi	F/B Ratio	Input Imped. R	Input Imped. X	FOM
1.350	1.560	7.6	6.9	31.9	42.9	44.19
1.350	1.580	7.5	9.1	40.7	32.2	46.13
1.350	1.600	7.3	11.6	52.5	22.5	47.87
1.350	1.620	7.0	13.9	67.2	14.9	48.33
1.350	1.640	6.7	15.1	84.3	10.8	46.97
1.350	1.660	6.4	14.8	102.5	10.9	44.57
1.370	1.560	7.6	6.9	32.1	33.3	44.61
1.370	1.580	7.5	9.1	40.9	22.5	46.82
1.370	1.600	7.3	11.6	52.7	12.7	49.23
1.370	1.620	7.0	13.9	67.6	5.2	48.86
1.370	1.640	6.7	15.1	84.8	1.0	47.05
1.370	1.660	6.4	14.7	103.0	1.1	44.60

The FOM is based on Gain, F/B ratio and return loss.

Enjoy
Regards
Nat AB6SJ

3368. Re: Just what ARE the correct ham radio licensee stats?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 03:34:18 UTC
From: paulfriedman@attbi.com
Message-ID: <_8gF9.152019$NH2.10942@sccrnsc01>
Source record: 130505
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Interesting, thanks. For clarification, it should be stated that the figures represent U.S. licenses, not world-wide. I wonder what those numbers look like.

Paul

"Doug Thompson" <DT2314@ncvillage.net> wrote in message news:123192444.0023192808@ncvillage.net...
> On 24 Nov 2002 03:57:41 GMT, Dick Carroll <dixie@townsqr.com> wrote:
> > Better check for the stats at the correct source instead of trying to
> > support an untenable position.
>
> The stats are in fact quite different among sources people usually
> respect.
>
> Qrz.com lists 637,404 as the total number of licenses.
>
> AH0A at http://ah0a.org/FCC, who claims to be directly reading the FCC
> databases, comes up with 683,897 (10 Nov 02).
>
> ARNewsline has widely published a figure of 680,760 licenses,
> and the FCC itself seems to have remained silent on its own web pages.
>
> The difference between the qrz.com figure and the rest is an
> astounding 46,000+ licensees, so I'll assume that qrz.com is very
> wrong.
>
> That leaves AH0A, who calculates that the average age of a ham license
> is less than 60 months (currently about 57), and that's a critical
> figure for licenses which are renewable every ten years. It means
> that the total number must eventually decline, no matter what the
> short term fluctuations may be.
>
> In fact, if you take the AH0A figures for ARS totals at
> http://ah0a.org/FCC/Licenses.html and do a linear least squares fit to
> them, you find that there is no clear trend since 2000 due to the the
> statistical fluctuations in the data.
>
> That is, his figures don't tell us whether the hobby is growing or
> declining. The ARNewsline statement that there are 2235 fewer
> amateurs than at this time last year is not revealing either, because
> the number they quoted is within the expected fluctuations.
>
> In the absence of more authoritative data, I have to say that the

> assertion that ham radio is growing is unsubstantiated by what I can
> easily find on the web. My own look at the data indicates that it
> probably indicates a hobby which is remaining static.
>
> But I'm not trying to promote that position; it's just what the AH0A
> data seem to say. Can anyone else provide a link to more reliable and
> authoritative data? I'd actually love to see some information which
> unequivocally shows that ham radio is growing.

3369. Re: Just what ARE the correct ham radio licensee stats?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 04:33:20 UTC
From: Jim Hampton <aa2qa@frontiernet.net>
Message-ID: <uub74snoiefn5f@corp.supernews.com>
Source record: 130507
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

I inadvertently responded a short time ago to such a post. I will ask everyone responding to check the cross posts to a ton of other newsgroups. This might be ok for some of the amateur groups, but I doubt rec.radio.cb is too interested in this.

Thanks & 73 from Rochester, NY
Jim

3370. Re: Yagi question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 05:07:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uub93qniddhu90@corp.supernews.com>
Source record: 130508

There's very good information about the effects of conductive booms and clamps in Leeson's _Physical Design of Yagi Antennas_, from the ARRL.

Roy Lewallen, W7EL

Roger Grady wrote:
> "Cholo" <cholo@2com.pl> wrote:
>
>
>>Hi,
>>I want to project Yagi for 460MHz using Quickyagi 4.0.
>>The boom for this antenna will be made from nonconductor.
>>
>>I wonder if calculations for this type of boom will be accurate (using
>>QuickYagi)?
>>I've set "Options->Element Compensation->Boom Compensation"
>>to "Element placement = On the boom" and "Boom type = round".
>
>
> I'm not familar with the program but it should have an option for
> conductive vs. non-conductive boom. That has a non-trivial effect on
> element length depending on how the elements are mounted.
>
> W1JR and K1FO wrote some great articles in Ham Radio and QST on the
> subject of yagi design back in the late 80-'s to early 90's. One or
> the other addressed this topic.
>
>
> Roger Grady k9opo@comteck.qlfit.com
> To reply by email, remove "qlfit." from address

3371. Re: Just what ARE the correct ham radio licensee stats?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 05:21:44 UTC
From: Dick <rhughes33@cableone.net>
Message-ID: <rr9buus2acsvii4fa33eshpbn1t8p26saj@4ax.com>
Source record: 130509

I would tend to believe the FCC stats on ARRL which are current as of
Tuesday, November 26. http://www.arrl.org/fcc/stats.html

Dick - W6CCD

On 28 Nov 2002 03:17:22 GMT, DT2314@ncvillage.net (Doug Thompson)
wrote:

>On 24 Nov 2002 03:57:41 GMT, Dick Carroll <dixie@townsqr.com> wrote:
>> Better check for the stats at the correct source instead of trying to
>> support an untenable position.
>
>The stats are in fact quite different among sources people usually
>respect.
>
>Qrz.com lists 637,404 as the total number of licenses.
>
>AH0A at http://ah0a.org/FCC, who claims to be directly reading the FCC
>databases, comes up with 683,897 (10 Nov 02).
>
>ARNewsline has widely published a figure of 680,760 licenses,
>and the FCC itself seems to have remained silent on its own web pages.
>
>The difference between the qrz.com figure and the rest is an
>astounding 46,000+ licensees, so I'll assume that qrz.com is very
>wrong.

3372. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 06:44:25 UTC
From: Rick Karlquist <richard@karlquist.remove.this.com>
Message-ID: <dXiF9.141827$%m4.65829@rwcrnsc52.ops.asp.att.net>
Source record: 130510

Get a General Electric Superradio. About $50.

Rick N6RK

"l" <llcondon@earthlink.net> wrote in message
news:32759ff4.0211271817.69ae57f2@posting.google.com...
> I live in the mountains of north central PA (loacted in Allegeny
> National Forest). I am interested in suggestions for improving AM
> radio reception. Currently, I get little reception. I am
> interested in picking up AM stations in New York City, Philadelphia,
> Pittsburgh and Cleveland.
>
> Electricity is not available. I have to depend on battery power.
>
> Does anyone have suggestions on a type of radio and antenna to improve
> my reception.
>
> Thanks.

3373. Re: Yagi question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 06:59:30 UTC
From: ae517@FreeNet.Carleton.CA
Message-ID: <as4esicqq1@freenet9.carleton.ca>
Source record: 130511

> "Cholo" <cholo@2com.pl> wrote:
>>Hi,
>>I want to project Yagi for 460MHz using Quickyagi 4.0.
>>The boom for this antenna will be made from nonconductor.
>>
>>I wonder if calculations for this type of boom will be accurate (using
>>QuickYagi)?
>>I've set "Options->Element Compensation->Boom Compensation"
>>to "Element placement = On the boom" and "Boom type = round".

If making the boom from non-conductive materiel, you want to use
the free-space measurements. Set the boom compensation to zero...

Hope this helps.

--
73 de va3rr/aa8lu
http://www.qsl.net/va3rr

3374. Re: F.S. New Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 08:58:27 UTC
From: "D. Stussy" <kd6lvw@bde-arc.ampr.org>
Message-ID: <Pine.LNX.4.44.0211280858020.18358-100000@exp.bde-arc.ampr.org>
Source record: 130512
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

On Wed, 27 Nov 2002, Martin VK2UMJ wrote:
>"Odette Brown" <au273@freenet.carleton.ca> wrote in message
>news:3DE446FC.78A66A65@freenet.carleton.ca...
>> > For Sale,
>>
>> New Linear Amplifier HF-2500
>>
>> If interested please E-Mail me.
>>
>
>Perhaps some more info for those that don't have the complete info on this
>amp would be handy, such as Make, Power, Frequency Range, etc, etc,
>etc......

...Perhaps posting this in the RIGHT PLACE, such as rec.radio.swap.....

3375. Re: Pfeiffer Quad Square Orientation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 09:07:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uubn6ejs5und11@corp.supernews.com>
Source record: 130513

Nat Gurumoorthy wrote:
> . . .
> Questions: 1) Is the transmission lines stub properly modeled.
> 2) Is the specification of the wires close to the spreader
> violate any NEC rules
> 3) Is the model adequately segmented.
>. . .

1. If these are intended to be short circuited stubs, they are properly modeled.
2. No, the model looks fine. The EZNEC Average Gain check shows 0.0 dB, which is excellent.
3. The model needs more segments for best accuracy. The way to test is to increase the number of segments and see if the answer changes. You'll find quite a noticeable change in impedance and front/back if you increase the number of segments in the long wires to 21. Increasing to 33 makes a much smaller change, and there's hardly any change if increased beyond that.

I've converted this file (with original segmentation) to EZNEC format if any EZNEC users want to take a look at it. You can download it as Pfeiffer_Quad.EZ and accompanying Antenna Notes file Pfeiffer_Quad.txt from ftp://eznec.com/pub/. There are too many segments to run with the demo version, but demo users can view it with Antenna View. Because EZNEC has shorted and open stubs as modeling components, wire 33 wasn't necessary and was deleted.

Roy Lewallen, W7EL

3376. Re: LOOP Antenna - HV Corona??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 10:29:16 UTC
From: Dick <boleyd@yahoo.com>
Message-ID: <0emF9.3356$ov6.1706861@news2.news.adelphia.net>
Source record: 130514

Actually took the easy way out and melted some insulation from another piece of coax over the tip of the one functioning as the tuning capacitor. If that fails over time the RTV or Corona Dope ($7.00 per bottle) will be next.
Thanks to all that responded.
Dick N3HKN
PS: The 3.5ft square loop using 1/2inch copper pipe works quite well. Before the corona I had it up about 15ft, 10 ft from my GAP vertical, and it was usually equal to it given the directional characteristics of the loop -20M.
See http://www.standpipe.com/w2bri/ for construction details.

"Dick" <boleyd@yahoo.com> wrote in message
news:dR4F9.2975$ov6.1524758@news2.news.adelphia.net...
> I have a loop antenna that works quite well. I use a piece of 9913 coax as
> the capacitor to tune it. My problem is that I have corona at the tip of
the
> coax center conductor. Does anyone have any info on material I could use
to
> eliminate the corona?
>
> Regards - Dick N3HKN
>
>
>

3377. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 11:04:08 UTC
From: "Thomas C. Sefranek" <WA1RHP@ARRL.net>
Message-ID: <IKmF9.4730$yy.639624@newsread1.prod.itd.earthlink.net>
Source record: 130515

```
l <llcondon@earthlink.net> wrote in message
news:32759ff4.0211271817.69ae57f2@posting.google.com...
> I live in the mountains of north central PA (loacted in Allegeny
> National Forest). I am interested in suggestions for improving AM
> radio reception. Currently, I get little reception. I am
> interested in picking up AM stations in New York City, Philadelphia,
> Pittsburgh and Cleveland.
>
> Electricity is not available. I have to depend on battery power.
>
> Does anyone have suggestions on a type of radio and antenna to improve
> my reception.

Wire:
As High as you can,
As Long as you can,
Ground, equally as long.
>
> Thanks.

--
*
| __O Thomas C. Sefranek WA1RHP@ARRL.net
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org
```

3378. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 12:24:45 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <iWnF9.8504$l45.1080217@news20.bellglobal.com>
Source record: 130516

"Rick Karlquist"
> Get a General Electric Superradio. About $50.

Or an old AM/FM car radio, about $10. Some even have AM Stereo. Needs a good, quiet power supply of course. And speakers. And a short wire antenna. You know it's working when (at night) you can't find an empty channel on the AM band.

3379. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 13:43:32 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <HR3mPX01gkamnzHI7Eg9LBbST67b@4ax.com>
Source record: 130517

llcondon@earthlink.net (l) wrote:

>I live in the mountains of north central PA (loacted in Allegeny
>National Forest). I am interested in suggestions for improving AM
>radio reception. Currently, I get little reception. I am
>interested in picking up AM stations in New York City, Philadelphia,
>Pittsburgh and Cleveland.
>
>Electricity is not available. I have to depend on battery power.
>
>Does anyone have suggestions on a type of radio and antenna to improve
>my reception.
>
>Thanks.

Try the web page, http://www.ccrane.com

Call the folks there. They specialize in long-distance AM radio reception, and have a good selection of radios and antennas that would be helpful to your situation.

Bob
k5qwg

3380. Re: Just what ARE the correct ham radio licensee stats?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 13:53:46 UTC
From: n2ey@aol.com
Message-ID: <20021128085346.13494.00000757@mb-mj.aol.com>
Source record: 130518

In article <123192444.0023192808@ncvillage.net>, DT2314@ncvillage.net (Doug Thompson) writes:

>Qrz.com lists 637,404 as the total number of licenses.
>
>AH0A at http://ah0a.org/FCC, who claims to be directly reading the FCC
>databases, comes up with 683,897 (10 Nov 02).
>
>ARNewsline has widely published a figure of 680,760 licenses,
>and the FCC itself seems to have remained silent on its own web pages.
>
>The difference between the qrz.com figure and the rest is an
>astounding 46,000+ licensees, so I'll assume that qrz.com is very
>wrong.

When a license number is quoted, you need to know what the total consists of. Does it include club and other group licenses? Does it include all FCC ham licenses, or only those in the 50 states? Does it include expired licenses that are in the grace period, or only current, active licenses? How about RACES licenses, which FCC seems to be phasing out?

A very useful source is:

http://www.arrl.org/fcc/stats.html

which lists licenses held by individuals in the US and possessions/territories. They are broken down by state/posession and license class, and are derived directly from FCC data. Updated every day or so, and the date is given. Only downside is that only current data are shown.

The thread "ARS License Numbers" includes bimonthly updates based on these numbers. The current total is about 685,000

>That leaves AH0A, who calculates that the average age of a ham license
>is less than 60 months (currently about 57), and that's a critical
>figure for licenses which are renewable every ten years. It means
>that the total number must eventually decline, no matter what the
>short term fluctuations may be.

How does the average age correlate to anything related to growth or decline in totals?

The license term is 120 months. The midpoint is 60 months. Renewals can only be done in the last 3 months before expiration, unless you let the license expire. So a "young" database could be caused by lots of new licenses.

But in fact the "average age" is affected by many factors. The number of new licenses, and expirations/cancellations, rises and falls dramatically (see AH0A data on "new licenses" and "expired licenses" for some examples). An upgrade or address change does not generate a renewal unless the license is within 3 months of expiring, but a vanity call generates a renewal regardless of the license term. Vanity call rules changes in 1994 generated a surge of vanity calls, skewing the renewal dates. The 2000 restructuring generated a surge of upgrades, many of whom got vanity calls.

>
>In fact, if you take the AH0A figures for ARS totals at
>http://ah0a.org/FCC/Licenses.html and do a linear least squares fit to
>them, you find that there is no clear trend since 2000 due to the the
>statistical fluctuations in the data.

Agreed.

>
>That is, his figures don't tell us whether the hobby is growing or
>declining. The ARNewsline statement that there are 2235 fewer
>amateurs than at this time last year is not revealing either, because
>the number they quoted is within the expected fluctuations.

Where does ARNewsline get its data? What does the total include?

>
>In the absence of more authoritative data, I have to say that the
>assertion that ham radio is growing is unsubstantiated by what I can
>easily find on the web. My own look at the data indicates that it
>probably indicates a hobby which is remaining static.
>
>But I'm not trying to promote that position; it's just what the AH0A
>data seem to say. Can anyone else provide a link to more reliable and
>authoritative data? I'd actually love to see some information which
>unequivocally shows that ham radio is growing.
>
http://www.arrl.org/fcc/stats.html

is what I use.

>I'd actually love to see some information which
>unequivocally shows that ham radio is growing.
>
What's most important is the long-term picture rather than short-term variations, but that requires data keeping over long periods. With the demise of the Callbook, that job got harder.

Also, license totals themselves are not really the issue. What matters is the number of active hams on the air, and what they do with their license privileges.

73 de Jim, N2EY

3381. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 14:09:11 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211280609.181502f2@posting.google.com>
Source record: 130419

amfowler@melbpc.org.au (Alan Fowler) wrote in message
news:<3de679cc.11108902@news.melbpc.org.au>...
> Skin Effect.
>
> I came late into this discussion and didn't realise that
> there were discussions on two quite different applications
> of skin effect - 1. The use of a metal shield to stop r.f.
snip
>
> Alan

Good on you Alan.
May I interupt before Roy's response.
If one uses a metal conductor with a thickness of only
the skin depth of a 'normal' conductor (this conductor being
a skin or shell on a insulator)what actual changes if any occurs
with the density chart of current flow? Other comments?
Best regards
Art

3382. Re: HELP - rebuilding old AEA FSTV 430-16 antenna. ?coax used in matching loop?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 14:30:05 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <NLpF9.9421$oa.579035@news1.east.cox.net>
Source record: 130420

"VE3EIE John in Ottawa" <ve3eie@rac.caNOSPAM> wrote in message
news:3DDC0CBD.1050602@rac.caNOSPAM...
> Hello everyone,
>
> I need your help as I am rebuilding an old AEA FSTV 430-16 antenna
> that came down in an icestorm and the only thing left to know about
> is its coax "matching loop." The bit of coax used at the feedpoint
> is about 10 inches long and has CATV connectors on it. It's gone bad.
> I don't have impedance measuring equipment for those frequencies.
>
> Would anyone have information on the coax needed?
>
> AEA was bought by Timewave so I've looked at their site already
> and found nothing but did drop a line to their service department.
>
> The only information that I have left on this antenna comes from
> the end panel of the original shipping box and is as follows:
>
> Advertising bits: "The antenna of choice for the ATVer.
> Also great for DX-chasing at 432 MHz and
> satellite Transmit/receive at 435.9 MHz."
>
> Frequency: 420 to 440 MHz
> Gain over dipole: 14.3 db
> F/B ratio: 20 db
> Beam width: E-28, H-32
> VSWR: 1.3:1 or better
> Power handling: 250 W.
>
> Thanks for any assistance,
> John
>

Worse come to worse, you can replace the original driver setup
with a gamma match; "borrow" a design from a handbook.

Pete

3383. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 14:57:19 UTC
From: K3UD <K3UD@charter.net>
Message-ID: <K3UD-A86C4B.08571928112002@corp.supernews.com>
Source record: 130421

In article <32759ff4.0211271817.69ae57f2@posting.google.com>,
llcondon@earthlink.net (l) wrote:

> I live in the mountains of north central PA (loacted in Allegeny
> National Forest). I am interested in suggestions for improving AM
> radio reception. Currently, I get little reception. I am
> interested in picking up AM stations in New York City, Philadelphia,
> Pittsburgh and Cleveland.
>
> Electricity is not available. I have to depend on battery power.
>
> Does anyone have suggestions on a type of radio and antenna to improve
> my reception.
>
> Thanks.

All good suggestions. The GE Super radio is very good and perhaps the
best bargain in long range AM radios. It is usually available locally
and Radio Shack markets a re-branded version of it that is in every
Radio Shack store in my area and most likely where you are.

I am presently using a CCrane CC Radio which, IMHO beats the Super radio
in most respects. However it is over 3 times the price but again, in my
opinion, worth it. I have also used car radios in the past and these are
almost uniformly good inexpensive(sometimes free) alternatives. It seems
that Ford and Chrysler radios from the 60s, 70, and 80s do the best job.

Check out the CCrane company at: http://www.ccrane.com Lots of good
stuff there.

73
George
K3UD
T

3384. Re: LOOP Antenna - HV Corona??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 15:02:33 UTC
From: Ed Juge/NM <ed@juge.org>
Message-ID: <niqF9.20562$NV.419564@news.direcpc.com>
Source record: 130422

I've been considering a BIG loop... full-size on 160 meters. An antenna engineer friend was the first to warn me about the corona thing. Apparently, a loop that long can generate huge voltages in just a gentle breeze.

His suggestion was to feed it with a center-tapped transformer or torroid and ground the center tap. I have not looked into that idea so I just toss it in here for what it's worth. Sounds reasonable to me.

73... Ed, W5EJ

"Dick" <boleyd@yahoo.com> wrote in message news:0emF9.3356$ov6.1706861@news2.news.adelphia.net...
> Actually took the easy way out and melted some insulation from another piece
> of coax over the tip of the one functioning as the tuning capacitor. If that
> fails over time the RTV or Corona Dope ($7.00 per bottle) will be next.
> Thanks to all that responded.
> Dick N3HKN
> PS: The 3.5ft square loop using 1/2inch copper pipe works quite well. Before
> the corona I had it up about 15ft, 10 ft from my GAP vertical, and it was
> usually equal to it given the directional characteristics of the loop -20M.
> See http://www.standpipe.com/w2bri/ for construction details.
>
> "Dick" <boleyd@yahoo.com> wrote in message
> news:dR4F9.2975$ov6.1524758@news2.news.adelphia.net...
> > I have a loop antenna that works quite well. I use a piece of 9913 coax as
> > the capacitor to tune it. My problem is that I have corona at the tip of the
> > coax center conductor. Does anyone have any info on material I could use to
> > eliminate the corona?
> >
> > Regards - Dick N3HKN
> >
> >
> >
>
>

3385. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 15:41:10 UTC
From: "Stephen C. Robbins" <srobbinsNoSPaMDUDES@netacc.net>
Message-ID: <3de6396b$1@news.netacc.net>
Source record: 130423

"Thomas C. Sefranek" <WA1RHP@ARRL.net> wrote in message
news:IKmF9.4730$yy.639624@newsread1.prod.itd.earthlink.net...
>
>
> Wire:
> As High as you can,
> As Long as you can,
> Ground, equally as long.
> >
> > Thanks.
>
> --
> *

Not a bad start Thomas. One problem is that AM radios are usually hardwired to a ferrite rod antenna. The long wire will definately be better but you need either a radio with external antenna connections or you need to go into the radio and create your own by disconnecting the ferrite and adding components to couple the new external antenna.

An external antenna tuner will also help greatly. Take any design from the handbook and build it on the cheap since you do not need power handling capabilities. Commercial receive only tuners are also available cheap.

Changing radios as was earlier suggested is a good idea also. The GE Super was one of the few AM radios with a hot front end. Any of the SWL receivers such as the Yaesu FRG-7, Drake R-8, Grundig, etc etc will also do fairly well and give you additional entertainment listening to the short wave broadcasts.

3386. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 15:46:57 UTC
From: Jim Pennino <jimp@specsol.com>
Message-ID: <as5dph$4b4$1@mail.specsol.com>
Source record: 130424

Richard Clark <kb7qhc@attbi.com> wrote:

<stuff about bias deleted>

> I was also solicited to review the Flight Data recorder data for TWA
> 800. The concern there was that the few jangled bytes of data
> appearing at the point PRIOR to air-frame breakup could have been
> evidence of missile strikes. Yes, it is arguable that they could have
> - but that noise was also within specs (terrible as they were). The
> report submitted by all the agencies had some rather bogus
> interpretations entered into the analysis to cover the critic's
> concern. It didn't satisfy them, and the interpretations certainly
> were not science nor engineering.

> This last, in fact, brings us back around to the current World issue
> of Ossama, Saddam, and such. The conspiracy theory about missiles
> taking down TWA 800 had a reasonable genesis: we had shot down an
> Iranian civil airliner over Iran back during the first Iraqi fight.
> TWA 800 was payback and reported as such throughout the world - except
> here of course (not an uncommon insularity in our news). They also
> had the technology to do it, after-all Poindexter and Ollie North had
> sold them the missiles capable of taking down TWA 800.

> So, we have motive, opportunity, ability, and conspirators eager to
> supply them. Put such patriots as Ollie and Pointdexter (both felons)
> against the wall? No, it was simpler to say a spark did it (never
> happened before, and hasn't happened since) in the most safe of
> aviation fuels. It pays to have equal minded friends in high places.

> 73's
> Richard Clark, KB7QHC

Ummm, not quite.

May, 1990 Philippine Airlines center tank blew up.

March, 2001 Thai Airways center tank blew up (on the ground).

On Nov 23 and 24 the FAA issued emergency AD 2002-24-51 and AD 2002-24-52,
applicable to all Boeing Model 737-600, -700, -700C, -800, and -900 series
airplanes; Model 747 series airplanes; and Model 757 series airplanes.

The problem is related to extreme localized overheating of particular
fuel pumps.

--
Jim Pennino

3387. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 15:54:55 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <-Nidnb1aNqRDpnugXTWc3Q@comcast.com>
Source record: 130425

Some car radios work great, but I would check their current draw. I suspect
they draw too much to run off 8 D cells.

Tam
"l" <llcondon@earthlink.net> wrote in message
news:32759ff4.0211271817.69ae57f2@posting.google.com...
> I live in the mountains of north central PA (loacted in Allegeny
> National Forest). I am interested in suggestions for improving AM
> radio reception. Currently, I get little reception. I am
> interested in picking up AM stations in New York City, Philadelphia,
> Pittsburgh and Cleveland.
>
> Electricity is not available. I have to depend on battery power.
>
> Does anyone have suggestions on a type of radio and antenna to improve
> my reception.
>
> Thanks.

3388. Re: F.S. New Linear

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 17:19:49 UTC
From: nospam <xxxmmxxx@xxxspiritone.com>
Message-ID: <3DE65035.704F7DC4@xxxspiritone.com>
Source record: 130426
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Take a pill.

"D. Stussy" wrote:

> On Wed, 27 Nov 2002, Martin VK2UMJ wrote:
> >"Odette Brown" <au273@freenet.carleton.ca> wrote in message
> >news:3DE446FC.78A66A65@freenet.carleton.ca...
> >> > For Sale,
> >>
> >> New Linear Amplifier HF-2500
> >>
> >> If interested please E-Mail me.
> >>
> >
> >Perhaps some more info for those that don't have the complete info on this
> >amp would be handy, such as Make, Power, Frequency Range, etc, etc,
> >etc......
>
> ...Perhaps posting this in the RIGHT PLACE, such as rec.radio.swap.....

3389. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 17:38:14 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <b6lcuug92k05dfms75ntqm42lcau1m3cb4@4ax.com>
Source record: 130427

On Thu, 28 Nov 2002 15:46:57 +0000 (UTC), Jim Pennino
<jimp@specsol.com> wrote:

>airplanes; Model 747 series airplanes; and Model 757 series airplanes.
>
>The problem is related to extreme localized overheating of particular
>fuel pumps.
>
>--
>Jim Pennino

Hi Jim,

That was NOT the conclusion of the report of the TWA 800 disaster.

73's
Richard Clark, KB7QHC

3390. 70cm antenna recieve 800 mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 18:17:47 UTC
From: billpritjr@spamhole.com
Message-ID: <15b4be0.0211281017.5a7c9b09@posting.google.com>
Source record: 130429

Hey guys

Real quick...I live in an area with both conventional police 460-mhz traffic and also 800-mhz trunking....I was curious what performance I would get out of a 70cm amateur antenna (mobile) for monitoring both bands in my vehicle.

thanks and happy turkey day

BILL

3391. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 18:33:17 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <as5nh8$28e$1@slb4.atl.mindspring.net>
Source record: 130430

Art:

Carefull Art, although he has an interesting Web site, Alan is located in
Oz!

Down there in Oz, somewhere below the equator, guarded jealously by Old King
Neptune, water circles around in the opposite direction due to the Coriolis
Force when going down the drain, cyclones circulate in the opposite
direction to what we are used to, and you can't see the "Pole Star" for
night sights, and so the electrical skin effect may also be similarily
affected.

--
Peter K1PO
Indialantic By-the-Sea, FL

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:85ed38d.0211280609.181502f2@posting.google.com...
> amfowler@melbpc.org.au (Alan Fowler) wrote in message
news:<3de679cc.11108902@news.melbpc.org.au>...
> > Skin Effect.
> >
> > I came late into this discussion and didn't realise that
> > there were discussions on two quite different applications
> > of skin effect - 1. The use of a metal shield to stop r.f.
> snip
> >
> > Alan
>
> Good on you Alan.
> May I interupt before Roy's response.
> If one uses a metal conductor with a thickness of only
> the skin depth of a 'normal' conductor (this conductor being
> a skin or shell on a insulator)what actual changes if any occurs
> with the density chart of current flow? Other comments?
> Best regards
> Art

3392. Re: Yagi question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 18:36:08 UTC
From: Claus Waldraff <df8gh@darc.de>
Message-ID: <3DE66218.4020306@darc.de>
Source record: 130434

Cholo schrieb:

> I want to project Yagi for 460MHz using Quickyagi 4.0.
> The boom for this antenna will be made from nonconductor.
>
> I wonder if calculations for this type of boom will be accurate (using
> QuickYagi)?
> I've set "Options->Element Compensation->Boom Compensation"
> to "Element placement = On the boom" and "Boom type = round".

Hi Rob,

run your final model again with a NEC2 engine f.e. 4nec2 (
http://www.qsl.net/wb6tpu/swindex.html)

or MultiNEC

www.qsl.net/ac6la

it is free and more reliable.

With a non conducting boom element correction is not necessary.
You may need a slight correction due to internal deviation of the software
if you have a highly optimized version (see SM5BSZ page).

Claus

3393. Re: HB9CV designs ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 18:39:18 UTC
From: Claus Waldraff <df8gh@darc.de>
Message-ID: <3DE662D6.9060300@darc.de>
Source record: 130433

Douglas Snowden schrieb:
> I just found an old reference to the HB9CV 2 element beam. Looks like
> a couple of elements connected together via a phasing line. Looking on
> the web I don't see much. Anyone played with this? I'd like to play
> with one using all aluminum if it is possible. Maybe start on 10m.

Hi Doug,

have one built for 6m (see my site) and 10m (not documented yet, the same principle). I did it according to DK7ZB (you will find the original article (german only *.pdf) also linked on my page.

Claus
http://home.t-online.de/home/df8gh

3394. Re: LOOP Antenna - HV Corona??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 19:06:39 UTC
From: Dick <boleyd@yahoo.com>
Message-ID: <3PtF9.3424$ov6.1784413@news2.news.adelphia.net>
Source record: 130431

Mine is a little loop - 3.5ft square. HV at the side opposite the gamma
feed. Natural event. 4kv to 6kv at 100 watts to antenna.
Dick N3HKN

"Ed Juge/NM" <ed@juge.org> wrote in message
news:niqF9.20562$NV.419564@news.direcpc.com...
> I've been considering a BIG loop... full-size on 160 meters. An antenna
> engineer friend was the first to warn me about the corona thing.
> Apparently, a loop that long can generate huge voltages in just a gentle
> breeze.
>
> His suggestion was to feed it with a center-tapped transformer or torroid
> and ground the center tap. I have not looked into that idea so I just
toss
> it in here for what it's worth. Sounds reasonable to me.
>
> 73... Ed, W5EJ
>
> "Dick" <boleyd@yahoo.com> wrote in message
> news:0emF9.3356$ov6.1706861@news2.news.adelphia.net...
> > Actually took the easy way out and melted some insulation from another
> piece
> > of coax over the tip of the one functioning as the tuning capacitor. If
> that
> > fails over time the RTV or Corona Dope ($7.00 per bottle) will be next.
> > Thanks to all that responded.
> > Dick N3HKN
> > PS: The 3.5ft square loop using 1/2inch copper pipe works quite well.
> Before
> > the corona I had it up about 15ft, 10 ft from my GAP vertical, and it
was
> > usually equal to it given the directional characteristics of the
> loop -20M.
> > See http://www.standpipe.com/w2bri/ for construction details.
> >
> > "Dick" <boleyd@yahoo.com> wrote in message
> > news:dR4F9.2975$ov6.1524758@news2.news.adelphia.net...
> > > I have a loop antenna that works quite well. I use a piece of 9913
coax
> as
> > > the capacitor to tune it. My problem is that I have corona at the tip
of
> > the
> > > coax center conductor. Does anyone have any info on material I could

use
> > to
> > > eliminate the corona?
> > >
> > > Regards - Dick N3HKN
> > >
> > >
> > >
> >
> >
>
>

3395. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 19:11:35 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <rjncuu4hb1u39dp4015c7pc2v97bs9vfaj@4ax.com>
Source record: 130432

On 28 Nov 2002 06:09:11 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>amfowler@melbpc.org.au (Alan Fowler) wrote in message
news:<3de679cc.11108902@news.melbpc.org.au>...
>> Skin Effect.
>>
>> I came late into this discussion and didn't realise that
>> there were discussions on two quite different applications
>> of skin effect - 1. The use of a metal shield to stop r.f.
>snip
>>
>> Alan
>
>Good on you Alan.
>May I interupt before Roy's response.
>If one uses a metal conductor with a thickness of only
>the skin depth of a 'normal' conductor (this conductor being
>a skin or shell on a insulator)what actual changes if any occurs
>with the density chart of current flow? Other comments?
>Best regards
>Art

Hi Alan,

This has been questioned and responded to thus:
>On 25 Nov 2002 06:09:22 -0800, aunwin@insightbb.com (Art Unwin KB9MZ) wrote:
>
>>In other words, the
>>skin depth is not an exact science.
>>Art
>>
>>> At 1 KHz, skin depth in copper is 0.0826 in.
>>> At 10 KHz, it`s 0.0260 in.
>>> At 100 KHz, it`s 0.00826 in.
>>> At 1 MHz, it`s 0.00260 in.
>>>
>>> The pattern is established so you can extend the table above if you
>>> would like.
>>>
>>> The current has dropped at one skin depth to 36.8% of the magnitude on
>>> the surface. This fraction is 1/e. The base of the natural log is "e".
>>> This attenuation is 1 neper. Look up the number of db this is in your
>>> conversion tables, if you are interested.
>>>

>>> At 10 MHz, you can see that skin depth in copper is 0.000826 in. This is
>>> less than one thousandth of an inch. How thick is your aluminum or
>>> copper foil?
>>>
This last question went un-responded to (even when it was relevant to the discussion), but we thank Richard Harrison for the inclusion of these particulars.

Of course, by reviewing your page offered, it is obvious that having read 147 papers on the subject you are no stranger to this at all.

For those interested in the science (or simply want to look like a scientist by using a formula) consult "Reference Data for Radio Engineers." "Fundamental of Networks," "Skin Depth." Table 2 offers a Skin-Effect correction coefficient A for solid and tubular conductors. As the math is heavy in greek symbols whose roots are taken, I will skip their duplication here. However, on review of those tables, it seems it would take an extreme example to force a variation of greater than 2% from the expected.

Alan, given your readings, I have a question on a comment dropped into one of my references ("Engineering Electromagnetics," William H. Hayt) relating not to the depth, but rather the depth propagation for a 1KHz excitation. What do you have to offer in regard to:
"The velocity of propagation for this example is only 13.1M/s, or about 30MPH. This is a far cry from the velocity of propagation of a plane wave in free space. Associated with this small velocity is an extremely short wavelength of 1.31cM or about 1/2 inch. Again the comparison with free space is astonishing, for the wavelength in free space corresponding to a frequency of 1,000 cps is almost 200 miles."

I find it amusing that where science is denied, it has more spectacular effects than those claims dreamt up through musings and imaginings.

73's
Richard Clark, KB7QHC

3396. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 19:43:26 UTC
From: Big Bopper <rcranus@hotmail.coms>
Message-ID: <nW6dndSmO8ye73ugXTWcpA@comcast.com>
Source record: 130435
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

<Moparholic@hotmailnospam.com> wrote in message
news:20021123004628.510$wL@newsreader.com...
: "W6DKN" <w6dkn-nospam-@qsl.net> wrote:
: >> And your callsign is?
: >
: > 73 de W6DKN

: 1-800-eat shit..toll free call.

His Callsign is CBer, confirmed troll of rec.radio.cb

3397. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 19:50:49 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <tiscuu8r1v1q1v3o0voq4vb92bb8lu6imd@4ax.com>
Source record: 130436

On Thu, 28 Nov 2002 13:33:17 -0500, "Peter O. Brackett"
<ab4bc@ix.netcom.com> wrote:

> you can't see the "Pole Star" for
>night sights, and so the electrical skin effect may also be similarily
>affected.

Hi Peter,

Gad, don't go there puleez, next we'll hear is that the science of
skin effect is astrology. I don't want to have to correct those
misinterpretations of the implication of the trine aspect of Jupiter
(a benefic) in the IV house and Aries rising in a natal horoscope.
The next thing demanded would be a new depth penetration correction
table for the dawning of Aquarius. ;-)

73's
Richard Clark, KB7QHC

3398. Re: Pfeiffer Quad Square Orientation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 20:15:05 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <butcuucvna6h8d146kfkj2sq50nb33tlhp@4ax.com>
Source record: 130437

On 27 Nov 2002 19:09:10 -0800, nat.gurumoorthy@ubicom.com (Nat Gurumoorthy) wrote:

>Hi,
> Here is my attempt to design a 2 element Pfeiffer Quad. A Pfeiffer
>Quad is a reduced size quad which uses Shortened transmission line
>stubs at the Wire Spreader junctions to achieve tuning. What follows
>is my NEC input file
>

Hi Nat,

Between your generous publication of the particulars, and Roy's effort to make it accessible to us all, you have offered an interesting antenna that relates to several threads that have been running in this group recently - to wit, loops, stubs, and small form factor.

Given the results of modeling this, it appears to be a nice performer (7.27dBi) with a bandwidth running from 14.145 to 14.285 MHz (an analysis you desired).

73's
Richard Clark, KB7QHC

3399. Re: 70cm antenna recieve 800 mhz?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 20:25:50 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <8PxF9.28852$sT3.28558@news.bellsouth.net>
Source record: 130442

For what it's worth. I use a mag-mount cell antenna for receiving 30 to 174 scanner in the car. Works good in a rural location.

--
73,
Chuck
KE4ETH
Remove the obvious from Email.

"Bill" <billpritjr@spamhole.com> wrote in message news:15b4be0.0211281017.5a7c9b09@posting.google.com...
> Hey guys
>
> Real quick...I live in an area with both conventional police 460-mhz
> traffic and also 800-mhz trunking....I was curious what performance I
> would get out of a 70cm amateur antenna (mobile) for monitoring both
> bands in my vehicle.
>
> thanks and happy turkey day
>
> BILL

3400. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 21:00:05 UTC
From: Jim Pennino <jimp@specsol.com>
Message-ID: <as604l$38a$1@mail.specsol.com>
Source record: 130438

Richard Clark <kb7qhc@attbi.com> wrote:
> On Thu, 28 Nov 2002 15:46:57 +0000 (UTC), Jim Pennino
> <jimp@specsol.com> wrote:

>>airplanes; Model 747 series airplanes; and Model 757 series airplanes.
>>
>>The problem is related to extreme localized overheating of particular
>>fuel pumps.
>>
>>--
>>Jim Pennino

> Hi Jim,

> That was NOT the conclusion of the report of the TWA 800 disaster.

> 73's
> Richard Clark, KB7QHC

Perhaps not, but it seems to be the current thinking.

See http://www.avweb.com/newswire/news0248b.html

--
Jim Pennino

3401. Re: Pfeiffer Quad Square Orientation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 21:05:03 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <kv0duukohmihhca1qiuc0ndrrg4uikgr4l@4ax.com>
Source record: 130439

On Thu, 28 Nov 2002 20:15:05 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

>you have offered an interesting
>antenna that relates to several threads that have been running in this
>group recently - to wit, loops, stubs, and small form factor.

Hi Nat,

I just compared this to another (miracle) antenna designed to the same
band, but with 13 elements! It proves to have more gain, but less
than 4dB more for all that aluminum put into the sky.

The NBS yagi compared to that same 13 element yagi comes in less than
1dB behind - to think, less than 1 db for 10 more elements.

73's
Richard Clark, KB7QHC

3402. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 22:00:11 UTC
From: Rick Karlquist <richard@karlquist.remove.this.com>
Message-ID: <LlwF9.168864$1O2.11668@sccrnsc04>
Source record: 130440

"Thomas C. Sefranek" <WA1RHP@ARRL.net> wrote in message
news:IKmF9.4730$yy.639624@newsread1.prod.itd.earthlink.net...
> > Does anyone have suggestions on a type of radio and antenna to improve
> > my reception.
>
> Wire:
> As High as you can,
> As Long as you can,
> Ground, equally as long.
> >

Nonsense: that advice would be relevant for a TRANSMITTING
antenna. For receiving, a ferrite rod or tuned loop is far better
than a random wire. No matter how high or long it is. Unless
it is a Beverage antenna, in which case it should be a long
as you can, but as LOW as you can (even laying on the ground).
In no case AFAIK is ground particularly critical for receiving.
Been there, done that.

Rick N6RK

3403. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-28 23:10:29 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <EnxF9.6587$cx4.1095212@news20.bellglobal.com>
Source record: 130441

"Stephen C. Robbins"
>...disconnecting the ferrite and adding
> components to couple the new external
> antenna. ...

Worst case, you simply wrap a few turns (10-ish) of wire around the ferrite rod and connect the random wire to one side and a ground to the other. Whether or not it actually helps reception is another matter.

3404. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 00:13:21 UTC
From: fractenna@aol.com
Message-ID: <20021128191321.13560.00008443@mb-mj.aol.com>
Source record: 130443

>On 26 Nov 2002 20:21:20 GMT, fractenna@aol.com (Fractenna) wrote:
>
>> 'fractals do no better than other small/broadband/frequency
>>independent/antennas'.
>>
>>The answer is 'yes'.
>>
>imagine that.
>
>I suppose this hinges on the genetically optimized definition of yes.
>
>>
>>...a few more weeks anyway.
>
>No crystal ball needed there, bubba.
>
>73's
>Richard Clark, KB7QHC
>

There are two issues which seem pertinent to you Mr. Clark. One regards scientific fact, the other the statute of limitations.

Nuff said.

Cordially,

Nathan Cohen

3405. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 00:34:59 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211281634.71f875e7@posting.google.com>
Source record: 130444

Very funny Peter, but Alan appears to be a very knoweledgable person
regarding skin effect and I am sure he has taken that into account. I
for one want to take advantage of his knoweledge regarding current
density in material that is THINNER than the excepted skin depth,
knowledge of which is not required for a puny degree in English!
Unfortunately there ia a shadow on the screen that appears to be
readying himself for an attack on them there 'foreigners' that
are comfortable with impedance paths rather than using a ruler to
measure the shortest distance! I am sure that Alan will be able to
handle the shakespearian 'lip' that is about to come his way with no
problem at all.
Regards
Art Unwin KB9MZ...XG

"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:<as5nh8$28e$1@slb4.atl.mindspring.net>...
> Art:
>
> Carefull Art, although he has an interesting Web site, Alan is located in
> Oz!
>
> Down there in Oz, somewhere below the equator, guarded jealously by Old King
> Neptune, water circles around in the opposite direction due to the Coriolis
> Force when going down the drain, cyclones circulate in the opposite
> direction to what we are used to, and you can't see the "Pole Star" for
> night sights, and so the electrical skin effect may also be similarily
> affected.
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL
>
>
> "Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
> news:85ed38d.0211280609.181502f2@posting.google.com...
> > amfowler@melbpc.org.au (Alan Fowler) wrote in message
> news:<3de679cc.11108902@news.melbpc.org.au>...
> > > Skin Effect.
> > >
> > > I came late into this discussion and didn't realise that
> > > there were discussions on two quite different applications
> > > of skin effect - 1. The use of a metal shield to stop r.f.
> snip
> > >

> > > Alan
> >
> > Good on you Alan.
> > May I interupt before Roy's response.
> > If one uses a metal conductor with a thickness of only
> > the skin depth of a 'normal' conductor (this conductor being
> > a skin or shell on a insulator)what actual changes if any occurs
> > with the density chart of current flow? Other comments?
> > Best regards
> > Art

3406. Re: HELP - rebuilding old AEA FSTV 430-16 antenna. ?coax used in matching loop?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 04:19:23 UTC
From: Hap Griffin <lgriffin@sc.rr.com>
Message-ID: <fVBF9.159572$dn3.8449985@twister.southeast.rr.com>
Source record: 130445

"VE3EIE John in Ottawa" <ve3eie@rac.caNOSPAM> wrote in message
news:3DDC0CBD.1050602@rac.caNOSPAM...
> Hello everyone,
>
> I need your help as I am rebuilding an old AEA FSTV 430-16 antenna
> that came down in an icestorm and the only thing left to know about
> is its coax "matching loop." The bit of coax used at the feedpoint
> is about 10 inches long and has CATV connectors on it. It's gone bad.
> I don't have impedance measuring equipment for those frequencies.
>
> Would anyone have information on the coax needed?
>

The coax loop is a half wavlength phasing line. I don't recall the coax
type but I seem to remember that it was RG-6 (75 ohm) with F-connectors on
it. If you still have it, measure the outer diameter and compare it with
RG-6. The center conductor would have to be solid if it has F-connectors.
You're replacement would need to be exactly the same length...tip to tip.

Hap Griffin
WZ4O

3407. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 04:34:21 UTC
From: Turkey <turkey@hotsnail.coms>
Message-ID: <YhednZJgifLtc3ugXTWcqw@comcast.com>
Source record: 130446
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

<Moparholic@hotmailnospam.com> wrote in message news:20021128202614.259

: Kepp cross posting this drivel to rec.radio.cb,and I'll keep giving you
the
: same answer.

The word is "Keep" and you are the one who is cross posting, troll.

3408. Tri-X Tower Base

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 05:46:27 UTC
From: Gary <k5jfp@yahoo.com>
Message-ID: <TaDF9.80293$Kj1.3393686@twister.austin.rr.com>
Source record: 130447

I am moving my W-51 crankup from my old house to my new one. I will, of course, need a new base to bury in concrete and am planning to have one fabricated by a local shop. I haven't been quoted a final price on it, but I think it's going to run around $70-75 which I understand is considerably less than retail. If anyone else out there is also in need of one of these I could up the order. I am not in the business and don't have anything to gain out of this deal - just putting out a QST in case it can help anyone else out. The shop doing this has done other work for me - all excellent quality. They are in central Texas.

Gary W5WC

Reply to k5jfp@yahoo.com
(K5JFP was my first call 45 years ago)

3409. Re: Looking for 6m half wave (no radials) design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 05:59:46 UTC
From: wq1o@attbi.com
Message-ID: <45d741b3.0211282159.405d5787@posting.google.com>
Source record: 130448

nm5k@wt.net (Mark Keith) wrote in message
news:<25eb70d7.0211241031.24c15370@posting.google.com>...
> wq1o@attbi.com (Frank Olaughlin) wrote in message
>
> Also...better mention that the coax stub cap is open on the end. No
> connection between shield and center conductor at the end. I seal it
> with a dab of silicone. MK

Thanks for your experience on that, Mark. I appreciate it. The details
you provided are exactly what I was looking for. At 6m length, it
should be quite manageable from a transport and setup perspective.
That 10m one you built sounds pretty interesting as well. Now that 10m
may go back to being like a vhf band for a while, I might give it a
try as well. Thanks Mark.
Happy Holidays to all!!
Frank WQ1O

3410. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 12:58:14 UTC
From: Secret Report <itsa@secret.com>
Message-ID: <3DE76466.C4CD4C57@secret.com>
Source record: 130449
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Moparholic@hotmailnospam.com wrote:
>
> Another jackass.

No, it's the same one, ad nauseum.

3411. Please help layman ...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 13:51:51 UTC
From: jirinej@volny.cz
Message-ID: <7e29a94a.0211290551.4442dcd5@posting.google.com>
Source record: 130450

I would like a little bit to learn about how to receive as good as possible terrestrial TV signal (central Europe). I know a little about antennas, frequencies, channels, gain, noise ... There are many internet shops, which can sell me all I need, but I don't know well what I really need, to have my signal as good as possible. These are my typical layman questions: When amplifying signal from antenna - amplify only one channel or bunch of channels? , Amlify right away in antenna or when joining the signals?, How to join some channels together if they are close?, what can I do, if the signnal after joining is noisy ? etc ... I don't need to know detailed schemas of components - my understanding of electornics ended with tranzistor at school. Please do somebody know any internet addresses which can give me answers to my above questions? Thanks.

3412. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 14:29:01 UTC
From: k1bqt@aol.com
Message-ID: <20021129092901.07619.00008718@mb-mn.aol.com>
Source record: 130451

>There are two issues which seem pertinent to you Mr. Clark. One regards scientific fact, the other the statute of limitations.<

It appears to me that the scientific statute of limitations is rapidly running out on fractal loading. Does anyone really believe the creative application of GA can put feathers back on this left-over turkey?

Rick K1BQT

3413. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 14:56:58 UTC
From: fractenna@aol.com
Message-ID: <20021129095658.29266.00000152@mb-cb.aol.com>
Source record: 130452

>>There are two issues which seem pertinent to you Mr. Clark. One regards
>scientific fact, the other the statute of limitations.<
>
>It appears to me that the scientific statute of limitations is rapidly
>running
>out on fractal loading. Does anyone really believe the creative application
>of
>GA can put feathers back on this left-over turkey?
>
>Rick K1BQT
>

You have an amusing turn of words Rick. I got a chuckle out of it.

Are you saying that the FRAGO doesn't work?

Or could it possibly be that science is being done? Or are you saying that the 'Q' issue is just plain unimportant?

Say, you never took me up on the lunch offer--remember, I offered to have you down to the lab for lunch and a FRAGO (http://www.fractenna.com/FRAGO%20Brochure.pdf) demo-- so try this one on for size:

How would you like to critique the manuscript before it gets submitted?

Confidentiality before pub, of course, and need all comments back within two weeks. Submit date is after the APS deadline, looking at 20 January.

Let me know within a week. N1IR.com getting tweaked before launch and I don't want to be diverted given my small amount of time away from the lab.

Real busy; Busy. Busy. Busy.

Or do all I hear is a big fat--CLUCK?

73,
Chip N1IR

3414. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 15:09:02 UTC
From: Jerry <jerrysplace2@juno.com>
Message-ID: <iqLF9.53750$2z1.18200169@twister.socal.rr.com>
Source record: 130453

Interesting, all this time, I thought the claim was being made that fractal antennas could be applied to under 30MHz, but it appears this is not so in real life. Here is a quote from fractenna.com ----

We can provide the very best solution to your OEM needs and can meet your design or vended antenna requirements for antennas from 30 MHz to 10 GHz. With our exclusive patented fractal antenna technology we can help you get the Fractal AdvantageT.

"Fractenna" <fractenna@aol.com> wrote in message news:20021129095658.29266.00000152@mb-cb.aol.com...
> >>There are two issues which seem pertinent to you Mr. Clark. One regards
> >scientific fact, the other the statute of limitations.<
> >
> >It appears to me that the scientific statute of limitations is rapidly
> >running
> >out on fractal loading. Does anyone really believe the creative application
> >of
> >GA can put feathers back on this left-over turkey?
> >
> >Rick K1BQT
> >
>
> You have an amusing turn of words Rick. I got a chuckle out of it.
>
> Are you saying that the FRAGO doesn't work?
>
> Or could it possibly be that science is being done? Or are you saying that the
> 'Q' issue is just plain unimportant?
>
> Say, you never took me up on the lunch offer--remember, I offered to have you
> down to the lab for lunch and a FRAGO
> (http://www.fractenna.com/FRAGO%20Brochure.pdf) demo-- so try this one on for
> size:
>
> How would you like to critique the manuscript before it gets submitted?
>
> Confidentiality before pub, of course, and need all comments back within two
> weeks. Submit date is after the APS deadline, looking at 20 January.
>

> Let me know within a week. N1IR.com getting tweaked before launch and I
don't
> want to be diverted given my small amount of time away from the lab.
>
> Real busy; Busy. Busy. Busy.
>
> Or do all I hear is a big fat--CLUCK?
>
> 73,
> Chip N1IR
>
>
>
>

3415. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 15:15:58 UTC
From: Turkey <turkey@hotsnail.coms>
Message-ID: <Mc6cnXJTUNdMGXqgXTWc3w@comcast.com>
Source record: 130455
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Secret Report" <itsa@secret.com> wrote in message
news:3DE76466.C4CD4C57@secret.com...
:
:
: Moparholic@hotmailnospam.com wrote:
: >
: > Another jackass.
:
:
: No, it's the same one, ad nauseum.

Another name scott Damn better not let landwhale mark BecK see it he will
add you to the list.

trying to bypass newsfilters I see huh scott.

3416. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 15:16:18 UTC
From: fractenna@aol.com
Message-ID: <20021129101618.29397.00000164@mb-cb.aol.com>
Source record: 130454

>Subject: Re: Fractal Debate
>From: "Jerry" jerrysplace2@juno.com
>Date: 11/29/02 10:09 AM Eastern Standard Time
>Message-id: <iqLF9.53750$2z1.18200169@twister.socal.rr.com>
>
>Interesting, all this time, I thought the claim was being made that fractal
>antennas could be applied to under 30MHz, but it appears this is not so in
>real life. Here is a quote from fractenna.com ----
>
>We can provide the very best solution to your OEM needs and can meet your
>design or vended antenna requirements for antennas from 30 MHz to 10 GHz.
>With our exclusive patented fractal antenna technology we can help you get
>the Fractal AdvantageT.
>
>

I am confused. Where does it say that fractal antennas aren't applicable below 30 MHZ? Or does my 5th place in the 2000 10M contest provide a neat little counterexample?(To 'hams' Jerry, the 10M band falls from 28-29.7 MHz).

What is your motivation Jerry?Are we supposed to discuss COMPANIES here? If so, I can merely say that I am a well-versed designer of antennas from decametric to millimetric wavelengths.

Hope that helps and gives you a knowledge advantage:-)

73
Chip N1IR

3417. Re: LOOP Antenna - HV Corona??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 16:15:59 UTC
From: Bill Aycock <baycock@hiwaay.net>
Message-ID: <3DE792BF.4050904@hiwaay.net>
Source record: 130456

My question-- How do you know the Corona is only on the center cnducter?
Bill

Dick wrote:
> I have a loop antenna that works quite well. I use a piece of 9913 coax as
> the capacitor to tune it. My problem is that I have corona at the tip of the
> coax center conductor. Does anyone have any info on material I could use to
> eliminate the corona?
>
> Regards - Dick N3HKN
>
>
>

3418. 144/440 Vertical over aHF beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 17:16:49 UTC
From: RalphE <K4ffa@comcast.net>
Message-ID: <dDCdncYmppSQMnqgXTWcoQ@comcast.com>
Source record: 130465

Can anyone tell me how far above a HF beam (Force 12 C4SXL) do I need to put a 2 meter/ 440 vertical (GP-9}on the mast pipe.?

Please reply direct to KB4I@comcast.net

Thanks,

Phillip KB4I

3419. Re: 7 steps to improve ham radio.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 17:17:32 UTC
From: Nastee <Guido@anon.com>
Message-ID: <as88fhhud0@pita.alt.net>
Source record: 130459
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Secret Report" <itsa@secret.com> wrote in message
news:3DE76466.C4CD4C57@secret.com...
>
>
> Moparholic@hotmailnospam.com wrote:
> >
> > Another jackass.
>
>
> No, it's the same one, ad nauseum.

Typical Liberal Democrat...when the truth hurts take the low road and call
names.

3420. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 17:20:43 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211290920.2f8bc2ae@posting.google.com>
Source record: 130457

Chip,
I see that you are once again under attack by the antenna group

These attacks have been going on now for several years with a few
breaks
while they turn and attack somebody else. What do you attribute these
series of attacks to? There is no doubt that Clerk has been an
effective Pied Piper in leading these attacks but why is he so
succesful in attracting such a following from otherwise intelligent
people? At times I attribute it to be against foreiners, other times I
feel it is because of the presentation of new ideas,
then there is the apparent love of debate where the best uses of
speech is valued more than truth, and then there is the current
thought on this side of the pond where it is 'You agree with us or you
are against us' !
So what is it that you think is the reason why so many can be rallied
against you with the onslaught of hate for so long ? You are certainly
not foreign born,
and the normal ham is interested in new antenna ideas, this leaves
only one thing in my mind, the love of debate , use of words to
discredit,the spread of misinformation and the discharge of hate from
relativly safe positions.
It is obvious that most on this newsgroup are fine people yet many
have the addiction of throwing sharp and heavy stones on a whim the
same as the
Pied Piper which seems so incomprehesible.

Best regards and I hope you had a great 'Harvest Festival' otherwise
known in this country as 'Thanksgiving'

Art Unwin KB9MZ....XG

news:<20021128191321.13560.00008443@mb-mj.aol.com>...
snip

>
> >No crystal ball needed there, bubba.
> >
> >73's
> >Richard Clark, KB7QHC
> >
>
> There are two issues which seem pertinent to you Mr. Clark. One regards
> scientific fact, the other the statute of limitations.
>
> Nuff said.

>
> Cordially,
>
> Nathan Cohen

3421. Ant Tuner Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 17:24:38 UTC
From: marvin rosen <raghead@worldnet.att.net>
Message-ID: <qpNF9.36333$hK4.3181045@bgtnsc05-news.ops.worldnet.att.net>
Source record: 130458

Is there any validity when using balanced feedline, to place
the balun at the input of the tuner?

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.417 / Virus Database: 233 - Release Date: 11/8/02

3422. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 17:51:12 UTC
From: k1bqt@aol.com
Message-ID: <20021129125112.01527.00000098@mb-cr.aol.com>
Source record: 130460

Hi Art--

>...many have the addiction of throwing sharp and heavy stones on a whim the same as the Pied Piper which seems so incomprehesible.<

Grow thee not faint and ghostly at the sight of bulls at their rut. Such raw and lustful challenge is but nature's way of ensuring only the best of antenna science prevails.

Rick K1BQT

3423. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 17:58:34 UTC
From: fractenna@aol.com
Message-ID: <20021129125834.08625.00000249@mb-da.aol.com>
Source record: 130461

>Best regards and I hope you had a great 'Harvest Festival' otherwise
>known in this country as 'Thanksgiving'
>
>Art Unwin KB9MZ....XG

Hi Art,

My sense is that some people are so shocked that gurus would make themselves available, that they feel the need to stalk them. Some of these folks are out of work; some work for competitors; some have an antisocial sense of 'fun'; some just like to mix it up.

I have many friends here (such as yourself) and I enjoy you and their company. I have no problem ignoring the usual spectrum of bad taste and vituperative, and fortunately, I can afford to have others to assess when individuals cross over the line into defamation; IP piracy; and so on. I make it clear that I don't lead them there--but see no reason to give up my constitutional rights to communicate either.Certainly no one asked them to give up theres.Expression is not their problem, eh Art:-)?

I have absolutely no problem if someone concludes that I am litigious; difficult; and so on (ad nauseum). If that means that I have made efforts to resolve matters, which have not been remedied in others ways, then I fully understand why that speculation is applied.

Trust the fact that people are sincere and genuinely friendly when given half the chance, and ignore certain individuals' nonsense up to the point where a group of peers would conclude that there is something going on which goes far beyond a mere placement of silly insults.

Had a lovely turkey day; hope you did too!

73,
Chip N1IR

3424. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 18:01:17 UTC
From: k1bqt@aol.com
Message-ID: <20021129130117.01527.00000099@mb-cr.aol.com>
Source record: 130462

Hi Chip--

>Are you saying that the FRAGO doesn't work?<

Not at all. I'm suggesting you may have given FRAGO a very tough nut to crack.

--Rick

3425. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 18:05:09 UTC
From: fractenna@aol.com
Message-ID: <20021129130509.08663.00000164@mb-da.aol.com>
Source record: 130463

>Hi Art--
>
>>...many have the addiction of throwing sharp and heavy stones on a whim the
>same as the Pied Piper which seems so incomprehesible.<
>
>Grow thee not faint and ghostly at the sight of bulls at their rut. Such raw
>and lustful challenge is but nature's way of ensuring only the best of
>antenna
>science prevails.
>
>Rick K1BQT
>
>

No Rick; its your perspective. Frankly it is not compatible with the history of the field.

The best always prevails; the issue is making sure the pioneers don't get shafted.

Incidentally, I noted with some interest that Napster now officially doesn't exist anymore; its (now modest) assets bought out for a penny on the dollar by Roxio.

This no doubt should send a shudder down the spine of pirates and those who feel that malicious expression (that is to say, statements which are demonstrably false) is now not free expression on the internet.

BTW, your response to my offer to let you review a manuscript on low Q, electrically small genetically optimized antennas is---

?

73,
Chip N1IR

3426. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 18:11:22 UTC
From: fractenna@aol.com
Message-ID: <20021129131122.08663.00000165@mb-da.aol.com>
Source record: 130464

>Not at all. I'm suggesting you may have given FRAGO a very tough nut to
>crack.
>
>--Rick

That indicates an absence of knowledge, not an inability to assess it. Let me enlighten.

Any optimization program allows for the opportunity to 'seed' the first pass with what's already known to work well. Hence to ask an FOM engine to assess what's best becomes very straight forward: it either continues to spit out what you start with, or saves the ones that are better.

Ed Altshuler had an interesting antenna produced by GA optimization(see Transactions APS March 2002) using a Cartesian gridded set of endpoints to constrain how to define the free parameters. That's a good starting candidate, as are others.

In all sincerity, if you have one to pass along then pass it along. Be easy to compare to others at this point. It hardly is an intractable approach.

73
Chip N1IR

3427. Re: Ant Tuner Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 18:43:17 UTC
From: "s Razor <Cecil.A.Moore@ieee.org>"
Message-ID: <3DE7B544.3070401@ieee.org>
Source record: 130467

marvin rosen wrote:
> Is there any validity when using balanced feedline, to place
> the balun at the input of the tuner?

It certainly makes sense with balanced tuners.
--
73, CAM, W5DXP

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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3428. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 18:43:27 UTC
From: Bart Rowlett <bart@wb6hqk.ampr.org>
Message-ID: <3DE7B54F.A6063C32@wb6hqk.ampr.org>
Source record: 130466

Alan Fowler wrote:
>
[stuff deleted]

> >>If the ends of the tube are open,it does not
> >>matter if you connect the lead to the inner or the >>outer surface of the tube.
>
> >In practice that's true. In order to make a
> >connection to the inside, you have to poke a wire
> >inside the tube. Then you have a co-axial line
> >inside the tube which will support current flow on
> >the inside. You'll end up with essentially the
> >impedance of the short length of co-ax in series
> >with the coil since this is the path that the
> >current on the inside will take to the outside.
>
> You are suggesting that the current will flow from the
> connection point back to the end of the tube along the inner
> surface, across the thickness of the tube, then along the
> outer surface.

Which is exactly what will happen at frequencies where the skin depth is
small compared to the wall thickness.

> Think about this carefully. In effect this path would have
> a significant impedance.

Which can easily be computed, and verified with fairly simple
measurements. This effect is often used for decoupling at UHF and
Microwave frequencies.

> There seems to be a misconception that the current cannot
> flow directly from the point of connection inside the tube
> to the outer surface.

The misconception is that high frequency AC current _can_ flow through a
bulk conductor whose thickness is large compared to the skin depth.

> Think about it this way. Take a long straight conductor
> carrying an r.f. current. Now disconnect it, make a small
> hole in a piece of copper sheet, slide it along the wire and
> solder in place (both sides. Connect the wire back into the
> circuit.

Ok.

> Now does the current flow up to the sheet, flow out over one
> side of the sheet, across the edge, back down the other side
> then continue along the wire,

Yes.

> or simply continue along the
> wire, through the disk and out the other side.

Nope.

> Why?

The question is 'why would it'? From your web page I see you are familiar with Whinnery. By far the best explanation I have ever seen is contained in the text "Fields and waves in Communication Electronics" by Whinnery, Van Duzer and Ramo.

Simply (and non quantitatively) put:

A circulating magnetic field always encircles a conduction current (Ampere's Law)
If a current is flowing through a conductor, than a magnetic field is also be present inside the conductor encircling the current.

A time varying magnetic field is associated with an electric field (Faraday's law).
If an AC current were flowing though a conductor, than a time varying electric field would coexist (and exchange energy) with the magnetic field.

Ohms law states that the electric field is zero within a perfect conductor, and very small inside a good conductor.

Since the electric field within a good conductor is negligible (you need to do some quantitative analysis in order to verify the validity of this statement), then so must be the magnetic field, and therefore the conduction current.

Another point of view is to look at the characteristics of electromagnetic wave propagation within a good conductor. The wavelength is equal to 2*pi * skindepth and the attenuation is 2*pi nepers per wavelength. Note the phase reversal at a depth of pi times the skin depth. Also note that even a thin copper sheet will be many wavelengths thick making it virtually impossible to predict the phase of the surface currents induced when what's left emerges through the other side.

A current traveling along the surface launches a wave into the conductor, perpendicular to the conductor surface. The wave is attenuated by 8.6 dB every skin depth and quickly vanishes.

bart
wb6hqk

3429. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 18:58:49 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE7B8E9.7050006@ieee.org>
Source record: 130468

Jerry wrote:
> Interesting, all this time, I thought the claim was being made that fractal
> antennas could be applied to under 30MHz, but it appears this is not so in
> real life. Here is a quote from fractenna.com ----
>
> We can provide the very best solution to your OEM needs and can meet your
> design or vended antenna requirements for antennas from 30 MHz to 10 GHz.
> With our exclusive patented fractal antenna technology we can help you get
> the Fractal AdvantageT.

You don't see many rotatable dipoles below 14 MHz. Can rotatable dipoles be
applied to under 14 MHz?
--
cheers, CAM, W5DXP

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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3430. Re: Ant Tuner Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 19:00:36 UTC
From: Bibby <bibby@attbi.com>
Message-ID: <oPOF9.34802$GR5.9014@rwcrnsc51.ops.asp.att.net>
Source record: 130369

Marvin, you need to define which 'input' you mean. Is the set-up TRX -> tuner -> balanced line > antenna? If so, is the tuner capable of true balanced feed on the antenna side? If the answer to this question is yes, then you don't need a balun. If the answer is no, which is more likely, then put a balun between the tuner and the balanced line.

Malcolm, W1/GW3NJY

"marvin rosen" <raghead@worldnet.att.net> wrote in message news:qpNF9.36333$hK4.3181045@bgtnsc05-news.ops.worldnet.att.net...
> Is there any validity when using balanced feedline, to place
> the balun at the input of the tuner?
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.417 / Virus Database: 233 - Release Date: 11/8/02
>
>

3431. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 19:03:52 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <uaefuuggcb73u68qm0slfibaj8se34q339@4ax.com>
Source record: 130370

On 29 Nov 2002 17:58:34 GMT, fractenna@aol.com (Fractenna) wrote:

|My sense is that some people are so shocked that gurus would make themselves
|available,

Ah, shouldn't that read, "self-proclaimed gurus"?

3432. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 19:07:24 UTC
From: Jerry <jerrysplace2@juno.com>
Message-ID: <MVOF9.55783$%k2.17027465@twister.socal.rr.com>
Source record: 130371

Ugh, yes they can. I've seen lots of rotatable dipoles in the 80/75/40 meter range. I haven't seen or heard of any fractal antennas in the same range, have you?

de jerry...

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message news:3DE7B8E9.7050006@ieee.org...

> You don't see many rotatable dipoles below 14 MHz. Can rotatable dipoles be
> applied to under 14 MHz?
> --
> cheers, CAM, W5DXP

3433. Problems With EDZ Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 19:38:49 UTC
From: "William M. Bickley" <bickley@dmv.com>
Message-ID: <uufgiathv5rm3a@corp.supernews.com>
Source record: 130372

I could use some help with this one:

Antenna is a new 88-foot extended double zepp, up about 35 feet. One end is in the clear. The other brushes the tops of a couple of pines before exiting on the other side of the treeline.

Feeder is 450 ohm window line, about 80 feet long, fed under the eave, thru a storage area, thru a wall, and directly to a Nye Viking tuner.

Neither the transceiver, amp or tuner are grounded to each other or anything else.

Performance is great (amazing, by my standards) on 80, 40 and 20 meters. At higher frequencies, I'm getting a terrible hum (or worse) in the rig speaker, the computer and the housewide audio system, to the point where the system is unusable, even at near-QRP power. No RF bite on the mike or any of the cabinets, though.

Removing the amp and adding a grounding strap from transceiver had no effect. Adding a W2DU choke between tuner and transceiver had no effect. Next step is to swap in a Johnson Matchbox, as soon as I can get it up to snuff.

This is my first entree with balanced feed, and I could use some advice and counsel.

TIA.

Bill W2ET

3434. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 21:17:24 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE7D964.9010505@ieee.org>
Source record: 130373

Jerry wrote:
> Ugh, yes they can. I've seen lots of rotatable dipoles in the 80/75/40
> meter range. I haven't seen or heard of any fractal antennas in the same
> range, have you?

Sure I have, but they have essentially the same problem as rotatable dipoles.
Antennas are scalable to any frequency but HF fractals and HF rotatable dipoles
have certain physical problems to solve that may stress their feasibility.
It is certainly easier to generate a von Koch snowflake curve on a PC board
for UHF than supporting it across your backyard for HF.
--
cheers, CAM, W5DXP

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3435. Re: LOOP Antenna - HV Corona??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 21:20:10 UTC
From: Dick <boleyd@yahoo.com>
Message-ID: <eSQF9.4619$ov6.2017600@news2.news.adelphia.net>
Source record: 130374

The center conductor (with insulation) was sticking out about 2 inches
beyond the braid. The glow was on the tip of that.

I have since switched from the 9913 cable loop tuning stub to RG-8. Much
better since more insulation around the center conductor. 9913 has a hollow
insulation vs RG-8 solid. No more problems. Loop works great!
Dick N3HKN

"Bill Aycock" <baycock@hiwaay.net> wrote in message
news:3DE792BF.4050904@hiwaay.net...
> My question-- How do you know the Corona is only on the center cnducter?
> Bill
>
> Dick wrote:
> > I have a loop antenna that works quite well. I use a piece of 9913 coax
as
> > the capacitor to tune it. My problem is that I have corona at the tip of
the
> > coax center conductor. Does anyone have any info on material I could use
to
> > eliminate the corona?
> >
> > Regards - Dick N3HKN
> >
> >
> >
>

3436. Re: Problems With EDZ Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 21:26:22 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE7DB7E.3010507@ieee.org>
Source record: 130375

William M. Bickley wrote:
> Antenna is a new 88-foot extended double zepp, up about 35 feet.

Your extended double zepp is an extended double zepp on only *one*
frequency. Yours is designed for about 13.3 MHz. Is your ladder-line
at least six inches away from anything conductive including itself?
Is your physical layout conducive to balanced currents in the
ladder-line?
--
cheers, CAM, W5DXP

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3437. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 21:51:08 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <Pvu1CcDMF+59EA2z@ifwtech.co.uk>
Source record: 130376

Bart Rowlett wrote:
>
>> There seems to be a misconception that the current cannot
>> flow directly from the point of connection inside the tube
>> to the outer surface.
>
>The misconception is that high frequency AC current _can_ flow through
>a bulk conductor whose thickness is large compared to the skin depth.
>
Exactly. As Bart points out, inside a good conductor the RF electric field and its associated magnetic field are both very nearly zero, and so therefore is the RF current (movement of electrons).

If you accept that the skin effect exists, then you're accepting that RF current flowing along a conductor will always push itself outward toward the surfaces. Having accepted that, it's inconsistent to *also* believe that RF current will dive radially through the thickness of the wall of the tube. It can't do both of those things.

Yes, an RF potential difference can exist between the inside and the outside surfaces of the tube. But each surface has its own separate skin effect, so there is no electric or magnetic field inside most of the thickness of the wall. No electric field = no current flow.

In other words, if the wall is continuous, and several skin depths thick at all frequencies involved, it behaves like an RF insulator between its inside and outside surfaces.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

3438. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 22:47:30 UTC
From: k1bqt@aol.com
Message-ID: <20021129174730.01478.00000063@mb-cr.aol.com>
Source record: 130377

Hi Chip--

>...it is not compatible with the history of
the field.<

Antennaland has a rich legacy of "innovators" with a perchant for rewriting Maxwell. Hasn't academic controversy always been important for preserving the integrity of the field?

>The best always prevails<

In this case, Best likely will.

>The issue is making sure the pioneers don't get shafted.<

Sometimes the issue is to ascertain if a self-proclaimed "pioneer" actually did anything worthy of the title.

Let's cut to the chase. Why not simply institute an "Apropraite Speech Code" here on the NG--just like a minority group over at Harvard Law School (in the People's Republic of Cambridge) is attempting to institute over there? With that luxury in hand, you'd be free to sue and destroy anyone who has the timerity to say anything that might make you feel uncomfortable or contradict your point of view. Come to think of it, hasn't fractenna been advocating that very thing for several years? By golly, you may be a pioneer after all!

>BTW, your response to my offer to let you review a manuscript on low Q, electrically small genetically optimized antennas is---<

[ ] Accepted
[X] Respectfully declined.

Rick K1BQT

3439. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 22:50:41 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <4bSF9.10733$l45.1402182@news20.bellglobal.com>
Source record: 130379

OT - but who cares ?

"Fractenna"
> I have absolutely no problem if someone
> concludes that I am litigious...

Are you really litigious ? I've seen no evidence that you do any more than threaten (based on personal experience and newsgroup lurking). Many court records are available on-line. Care to provide even a single URL ? Take all the time you need.

;-)

3440. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 22:51:35 UTC
From: Joe Strain <yodar@cfl.rr.com>
Message-ID: <XbSF9.388320$S8.7897679@twister.tampabay.rr.com>
Source record: 130378

When I had a wood stove-heated place in the OZARKS I had the SAME problem...

The answer is UP...I chose the highest tree nearby and used a slingsot to shoot some 30 lb monofilament thru the crown of the tree, and used it to pull some 16 guage insulated wire thru the tree to make a long wire antenna guyed with sufficient slack and springs to allow for flexing oif the tree in the wind.

For the TV I got a JFD Log Periodic Velocity antenna and a rotor and put it on the highest point on my roof...(satelllite was only a dream then)

Yodar
"l" <llcondon@earthlink.net> wrote in message
news:32759ff4.0211271817.69ae57f2@posting.google.com...
> I live in the mountains of north central PA (loacted in Allegeny
> National Forest). I am interested in suggestions for improving AM
> radio reception. Currently, I get little reception. I am
> interested in picking up AM stations in New York City, Philadelphia,
> Pittsburgh and Cleveland.
>
> Electricity is not available. I have to depend on battery power.
>
> Does anyone have suggestions on a type of radio and antenna to improve
> my reception.
>
> Thanks.

3441. Re: LOOP Antenna - HV Corona??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 22:58:15 UTC
From: Joe Strain <yodar@cfl.rr.com>
Message-ID: <biSF9.388375$S8.7898656@twister.tampabay.rr.com>
Source record: 130381

OOOOHHH! SPARKS! I want to learn MORE. DETAILS!!!

Ectually I want to learn more about your loop tuning process as I am buiding
al MW-loop on a hula hoop

Yodar

"Dick" <boleyd@yahoo.com> wrote in message
news:dR4F9.2975$ov6.1524758@news2.news.adelphia.net...
> I have a loop antenna that works quite well. I use a piece of 9913 coax as
> the capacitor to tune it. My problem is that I have corona at the tip of
the
> coax center conductor. Does anyone have any info on material I could use
to
> eliminate the corona?
>
> Regards - Dick N3HKN
>
>
>
>

3442. Has anyone any experience with the 23cm SHF Design SHF2344 antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 22:58:18 UTC
From: David Roosendaal <pe1mud@wanadoo.nl>
Message-ID: <3de7f07e$0$10842$8fcfb86b@news.wanadoo.nl>
Source record: 130380

Hi,

I am looking for a new 23cm antenna. Max boom length approx. 3m.

The SHF design antenna seems to make sense, on paper, but is it any good?

(the 44 element version)

Anyone?

David

3443. Re: LOOP Antenna - HV Corona??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 23:10:35 UTC
From: Dick <boleyd@yahoo.com>
Message-ID: <LtSF9.4643$ov6.2034829@news2.news.adelphia.net>
Source record: 130382

Loop is square - 3.5 feet per side made from 1/2 inch copper pipe. Gamma feed. Tuning capacitor is the coax stub 6" to 24" depending upon freq and environment - estimates.

I do not have an analyzer so I am at a disadvantage. Go to A6CV's site and look for mag loops. There you will find lot's of info. I used a program called ANTENNA.EXE by KI6GD. It gives all of the need calcs.

I build the loop and stub as close as possible to calculated values. Then tune my receive looking for a general increase in background noise. I trim the coax stub until that noise area falls near the a ham band. Then I strip off the outer insulation for a length of about 2 inches. The by moving the braid along the center conductor insulation I "fine tune" to the ham band. From there I tune the braid for lowest SWR and at the same time tune the gamma match for lowest swr. 1:1 is possible with very narrow bandwidth on low bands and better on 10M. Efficiency proportional to size. Higher efficiency the higher the Q and the more narrow the bandwidth.

Dick N3HKN

"Joe Strain" <yodar@cfl.rr.com> wrote in message
news:biSF9.388375$S8.7898656@twister.tampabay.rr.com...
> OOOOHHH! SPARKS! I want to learn MORE. DETAILS!!!
>
> Ectually I want to learn more about your loop tuning process as I am
buiding
> al MW-loop on a hula hoop
>
> Yodar
>
>
> "Dick" <boleyd@yahoo.com> wrote in message
> news:dR4F9.2975$ov6.1524758@news2.news.adelphia.net...
> > I have a loop antenna that works quite well. I use a piece of 9913 coax
as
> > the capacitor to tune it. My problem is that I have corona at the tip of
> the
> > coax center conductor. Does anyone have any info on material I could use
> to
> > eliminate the corona?
> >
> > Regards - Dick N3HKN
> >
> >
> >

> >
>
>

3444. Re: HB9CV designs ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 23:17:30 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <gbtfuu8ab1bvalce519aj95t73ur7sm7h7@4ax.com>
Source record: 130383

On Thu, 28 Nov 2002 19:39:18 +0100, Claus Waldraff <df8gh@darc.de>
wrote:

>
>Douglas Snowden schrieb:
>> I just found an old reference to the HB9CV 2 element beam. Looks like
>> a couple of elements connected together via a phasing line. Looking on
>> the web I don't see much. Anyone played with this? I'd like to play
>> with one using all aluminum if it is possible. Maybe start on 10m.
>
>
>Hi Doug,
>
>have one built for 6m (see my site) and 10m (not documented yet, the same
>principle). I did it according to DK7ZB (you will find the original article
>(german only *.pdf) also linked on my page.
>
>Claus
>http://home.t-online.de/home/df8gh

Hi Claus,

A nice clean design for your page. I liked it.

73's
Richard Clark, KB7QHC

3445. Re: LOOP Antenna - HV Corona??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-29 23:28:03 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <3ktfuuoc17eds14v1c4n57bjn28ohn7jed@4ax.com>
Source record: 130384

On Thu, 28 Nov 2002 08:02:33 -0700, "Ed Juge/NM" <ed@juge.org> wrote:

>I've been considering a BIG loop... full-size on 160 meters. An antenna
>engineer friend was the first to warn me about the corona thing.
>Apparently, a loop that long can generate huge voltages in just a gentle
>breeze.
>
>His suggestion was to feed it with a center-tapped transformer or torroid
>and ground the center tap. I have not looked into that idea so I just toss
>it in here for what it's worth. Sounds reasonable to me.
>
>73... Ed, W5EJ
>
Hi Ed,

Corona is RF, not static.

Any attempt to provide a path to ground as a means to leak it, if
"successful," would inevitably be a poor RF solution.

Most corona problems I've heard of relate to its occurrence at the
corners of the loops (strange thing to say, corners). This generally
affects center driven loops - the solution is to move the drive to the
corner and the corona inducing high potentials are pushed 45ï¿½ to the
middle of the next wire which lacks that sharp bend to aid in corona
formation. The second, most obvious, solution would be to build a
loop without corners.

73's
Richard Clark, KB7QHC

3446. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 00:00:22 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211291600.612f5b12@posting.google.com>
Source record: 130385

Bart Rowlett <bart@wb6hqk.ampr.org> wrote in message
news:<3DE7B54F.A6063C32@wb6hqk.ampr.org>...
> Alan Fowler wrote:
> >
> [stuff deleted]
>
> > >>If the ends of the tube are open,it does not
> > >>matter if you connect the lead to the inner or the >>outer surface of the tube.
>
> > >In practice that's true. In order to make a
> > >connection to the inside, you have to poke a wire
snip
A current traveling along the surface launches a wave into the
> conductor, perpendicular to the conductor surface. The wave is
> attenuated by 8.6 dB every skin depth and quickly vanishes.
>
> bart
> wb6hqk
==========
Glad to see you come in on this thread Bart now that Roy has fled
after saying that current will always follow the
shortest DISTANCE instead of best impedance paths. I am really looking
forward to a exchange of views between knowledgable people regarding
SKIN EFFECT where each are treated with respect even if there is some disagreement.
Regards
Art

3447. Re: Problems With EDZ Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 00:06:22 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <jnufuuc2ofdtl2r332j2btj78qobd9cnsl@4ax.com>
Source record: 130386

On Fri, 29 Nov 2002 14:38:49 -0500, "William M. Bickley"
<bickley@dmv.com> wrote:

>Neither the transceiver, amp or tuner are grounded to each other or anything
>else.
>
>Performance is great (amazing, by my standards) on 80, 40 and 20 meters. At
>higher frequencies, I'm getting a terrible hum (or worse) in the rig
>speaker, the computer and the housewide audio system, to the point where the
>system is unusable, even at near-QRP power. No RF bite on the mike or any
>of the cabinets, though.
>
>Removing the amp and adding a grounding strap from transceiver had no
>effect. Adding a W2DU choke between tuner and transceiver had no effect.
>Next step is to swap in a Johnson Matchbox, as soon as I can get it up to
>snuff.
>

Hi Bill,

Are you running an amp off batteries? Somehow I think you would have
mentioned that so I will proceed on the assumption you are connected
to line power and have dismissed the implications of ground finding
its way to your rig.

Ground is there, you just haven't designed it to your needs and the
hum proves it. If you had 50 choices to ground, you would probably
hit the right one by 25. The choke was a good step, but it doesn't
match a solution to the symptoms you describe.

Your entertainment systems and your rig may share a common path
somewhere in the house. This is a conduction based RFI where levels
can be very low, and yet be more than sufficient to present the
symptoms you describe. The easier way to find the solution is to
break that unseen ground path (you were under the impression it wasn't
there anyway, so this will test that faith).

On the basis of this approach there are several easy tests. Is your
rig and any interfered with system on the same breaker? Throw it and
find out if necessary. If you lack access to the panel, there is
another way to determine. Pick one interfered with system and plug it
in by extension cord into a different outlet in another room or on
another floor. This will break the common path if these two shared
the same breaker.

73's
Richard Clark, KB7QHC

3448. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 00:09:59 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211291609.7b4ed976@posting.google.com>
Source record: 130387

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message snip
>
> You don't see many rotatable dipoles below 14 MHz. Can rotatable dipoles be
> applied to under 14 MHz?

Cecil you disappoint me. There would be a lot more rotatable
dipoles aplied to under 14 MHz if this newsgroup didn't discourage
innovation by remaining silent and passive when attacks begin.
Art

3449. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 00:26:19 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <LATF9.7761$cx4.1327912@news20.bellglobal.com>
Source record: 130388

OT - but hilarious.

Raw material, in case it gets to that point...
http://makeashorterlink.com/?G35F14B92

:-)

3450. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 00:43:16 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <qg2guu0ksd50sd3rbblp3npttv9f7o1vno@4ax.com>
Source record: 130389

On Fri, 29 Nov 2002 19:26:19 -0500, "J. Harvey"
<JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote:

>OT - but hilarious.
>
>
>Raw material, in case it gets to that point...
>http://makeashorterlink.com/?G35F14B92
>
>:-)
>
:-)

3451. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 00:46:37 UTC
From: k1bqt@aol.com
Message-ID: <20021129194637.03027.00000141@mb-cq.aol.com>
Source record: 130390

>There would be a lot more rotatable
dipoles aplied to under 14 MHz if this newsgroup didn't discourage innovation
by remaining silent and passive when attacks begin.<

There's nothing special about loaded rotatable dipoles, Art. Stop whining and get off the pity pot. If you didn't acquire some valuable insight from your recent experieces on here, more's the pity. Lord knows some very credible guidance was offered.

Rick K1BQT

3452. RG-174/U Propagation Delay

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 00:49:00 UTC
From: Dick <rhughes33@cableone.net>
Message-ID: <oj2guu8tk37fkbumditq8bm3j5dfm0tpll@4ax.com>
Source record: 130391

Does anyone have a chart for the propagation delay of RG-174/U coax?
I need to determine the delay in nanoseconds at 1575 mHz for 20 feet
of coax.

Dick - W6CCD

3453. Re: RG-174/U Propagation Delay

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 01:22:56 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <RpUF9.67617$e%.1641593@news20.bellglobal.com>
Source record: 130392

"Dick"
> Does anyone have a chart for the propagation
> delay of RG-174/U coax? I need to determine
> the delay in nanoseconds at 1575 mHz for 20 feet
> of coax.

Google.com has (almost) everything.
www.google.com/search?q=coaxial+cable+velocity+factor+174

0.66 (66% of 'c') seems to be fairly consistently quoted. That makes your 20' cable equal to 30' of vacuum, or air. I don't believe it matters if it is 1575 mHz or 1575 MHz or anywhere in between. Temperature might matter more than frequency.

'c' equals about 1ns per foot (air/vacuum).

Your cable is 30 feet equivalent of air, 30.8 nanoseconds (overly exact math), properly rounds to 31 nanoseconds since you wrote "20".

:. 31 nanoseconds.

Watch out for delays in the IN and OUT circuits. Lots more nanoseconds here and there.

If it is 1575 MHz, then it's a good thing it's only 20 feet or it might NEVER come out the other end... ;-)

Wait for confirmation from others. This is the Internet and nobody knows that you're a dog. Woof.

3454. Re: RG-174/U Propagation Delay

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 01:35:43 UTC
From: Bob Nielsen <nielsen@remove_this.oz.net>
Message-ID: <as94lf$g72$0@216.39.144.81>
Source record: 130393

On Fri, 29 Nov 2002 17:49:00 -0700, Dick wrote:
> Does anyone have a chart for the propagation delay of RG-174/U coax?
> I need to determine the delay in nanoseconds at 1575 mHz for 20 feet
> of coax.
>
> Dick - W6CCD

The propagation velocity of RG-174/U, which has a polyethylene
dielectric, is 65.9% of the speed of light (often rounded to 66% in
data sheets).

20 feet = 6.1 meters

C = 2.9979 X 10^8 meters/second

6.1 /(2.9979 X 10^8 X .659) = 3.09 X 10^(-8)

Thus the delay in 20 feet would be 30.9 nanoseconds (which is
independent of frequency for the TEM mode).

73, Bob N7XY

3455. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 01:36:31 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE8161F.4010406@ieee.org>
Source record: 130394

Art Unwin KB9MZ wrote:
> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message snip
>
>>You don't see many rotatable dipoles below 14 MHz. Can rotatable dipoles be
>>applied to under 14 MHz?
>
> Cecil you disappoint me. There would be a lot more rotatable
> dipoles applied to under 14 MHz if this newsgroup didn't discourage
> innovation by remaining silent and passive when attacks begin.

Art, I assume that most everyone knows that rotatable dipoles below 14 MHz
are possible, just not very practical - same with beams - same with fractal
antennas. I'm not discouraging such. Mother Nature discourages such.
--
cheers, CAM, W5DXP

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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3456. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 01:40:48 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <CGUF9.67625$e%.1645209@news20.bellglobal.com>
Source record: 130396

CAM, W5DXP
> Art, I assume that most everyone knows that
> rotatable dipoles below 14 MHz are possible,
> just not very practical - same with beams -
> same with fractal antennas. I'm not discouraging
> such. Mother Nature discourages such.

Gravity issue. Local problem - not general.
:-)

3457. Re: RG-174/U Propagation Delay

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 01:42:50 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE8179A.6070103@ieee.org>
Source record: 130395

Dick wrote:
> Does anyone have a chart for the propagation delay of RG-174/U coax?
> I need to determine the delay in nanoseconds at 1575 mHz for 20 feet
> of coax.

Wirebook III says the velocity factor is 0.66, same as RG-213.
It also says the matched line losses at that frequency will be
about 8 dB for 20 ft. of RG-174.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3458. Re: RG-174/U Propagation Delay

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 01:46:09 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <as9590$kp6$1@helle.btinternet.com>
Source record: 130397

All solid polyethylene insulated cable, regardless of impedance, at HF has a propagation velocity of 66 percent of the velocity of light. You can work out the rest by yourself.

Reg.

3459. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 01:52:10 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <as95k9$l59$1@helle.btinternet.com>
Source record: 130398

Somebody said,
current will always follow the
> shortest DISTANCE instead of best impedance paths.

==========

Suppose the "best" impedance path is the shortest distance. Then what ?

3460. Re: 2M antenna for marine band?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 01:55:21 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <dUUF9.20541$oa.933199@news1.east.cox.net>
Source record: 130399

You can build, or buy, a cheap 2-meter antenna tuner. MFJ sells one,
and I think the early ARRL VHF handbooks might have had plans to
build one. A simple L network would do the job. While it won't improve
the antenna performance, it will provide a proper match to the transmitter.

Pete

"Ken" <cprstn54zz@att.net> wrote in message
news:3dd3a5aa.352011750@news-server.optonline.net...
> On Wed, 13 Nov 2002 16:03:07 GMT, cprstn54zz@att.net (Ken) wrote:
> >When I tried the marine handheld with the ham antenna (a homebrew
> >J-Pole), indicated power dropped to 4 watts and SWR was 1.25.
>
> Ooops. Failed to recalibrate the meter for this rig. When done
> properly, SWR is 2.5 -- not 1.25.
>
> Ken KC2JDY
>
> Ken
> (to reply via email
> remove "zz" from address)

3461. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 02:08:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uug7co4ooda1ae@corp.supernews.com>
Source record: 130400

Art Unwin KB9MZ wrote:
> ====================
> Glad to see you come in on this thread Bart now that Roy has fled
> after saying that current will always follow the
> shortest DISTANCE instead of best impedance paths. I am really looking
> forward to a exchange of views between knowledgable people regarding
> SKIN EFFECT where each are treated with respect even if there is some disagreement.
> Regards
> Art

I object to this untrue attribution. Art, if you can come up with a
direct quote showing that I said what you claim I said, I'll apologize.
Otherwise, I expect you to apologize.

Roy Lewallen, W7EL

3462. Re: Problems With EDZ Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 02:11:02 UTC
From: "William M. Bickley" <bickley@dmv.com>
Message-ID: <uug7ho5b5jee0d@corp.supernews.com>
Source record: 130401

Hi, Richard:

The amp, the transceiver and the computer (where I have the hum as well) are all running off the same circuit. I have the problem without using the amp at all, though.

I *think* the housewide audio is on a different circuit, but there's all kinds of coax running from it in the same storage room as the window wire. I guess there are multiple opportunities for trouble.

I will try the extension cord test to see if there is an improvement.

Now that I look, the window wire passes through the wall into my shack in an area which may be uncomfortably close to the 110 v. Romex running from receptacle to receptacle. I may try relocating the point of entry into the shack. I have not checked Cecil's question about how the window line is positioned versus itself, but will do so. That never crossed my mind. I guess I was expected too much of balanced line....

Bill W2ET

Oh, the shack is on the second floor, so grounding will be a challenge.
"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:jnufuuc2ofdtl2r332j2btj78qobd9cnsl@4ax.com...
> On Fri, 29 Nov 2002 14:38:49 -0500, "William M. Bickley"
> <bickley@dmv.com> wrote:
>
> >Neither the transceiver, amp or tuner are grounded to each other or
anything
> >else.
> >
> >Performance is great (amazing, by my standards) on 80, 40 and 20 meters.
At
> >higher frequencies, I'm getting a terrible hum (or worse) in the rig
> >speaker, the computer and the housewide audio system, to the point where
the
> >system is unusable, even at near-QRP power. No RF bite on the mike or
any
> >of the cabinets, though.
> >
> >Removing the amp and adding a grounding strap from transceiver had no
> >effect. Adding a W2DU choke between tuner and transceiver had no effect.
> >Next step is to swap in a Johnson Matchbox, as soon as I can get it up to
> >snuff.
> >
>

> Hi Bill,
>
> Are you running an amp off batteries? Somehow I think you would have
> mentioned that so I will proceed on the assumption you are connected
> to line power and have dismissed the implications of ground finding
> its way to your rig.
>
> Ground is there, you just haven't designed it to your needs and the
> hum proves it. If you had 50 choices to ground, you would probably
> hit the right one by 25. The choke was a good step, but it doesn't
> match a solution to the symptoms you describe.
>
> Your entertainment systems and your rig may share a common path
> somewhere in the house. This is a conduction based RFI where levels
> can be very low, and yet be more than sufficient to present the
> symptoms you describe. The easier way to find the solution is to
> break that unseen ground path (you were under the impression it wasn't
> there anyway, so this will test that faith).
>
> On the basis of this approach there are several easy tests. Is your
> rig and any interfered with system on the same breaker? Throw it and
> find out if necessary. If you lack access to the panel, there is
> another way to determine. Pick one interfered with system and plug it
> in by extension cord into a different outlet in another room or on
> another floor. This will break the common path if these two shared
> the same breaker.
>
> 73's
> Richard Clark, KB7QHC

3463. Re: Problems With EDZ Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 02:52:39 UTC
From: kf4toh@aol.com
Message-ID: <20021129215239.05349.00008498@mb-fw.aol.com>
Source record: 130402

william
really what you have is a long flat top dipole
feed with LL some call it a G5RV
but...
a true EDZ is truely cut for one band
only .hince phased 5/8 wave with a
450 matching stub which is somewhere around 1/8 to 1/4 wave"guessing"
i dont have all my notes here
check out this site for a great
design engine for the EDZ
i have one each up for 75 meters and
40 / 20
beats a dipole or full loop anyday
for short skip in the 5 to 600 miles
range, good choice , but you need to get it right for it to play

http://www.sadona.com/news2/ant_dblzepp.html

joe

3464. Re: RG-174/U Propagation Delay

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 02:56:22 UTC
From: Dick <rhughes33@cableone.net>
Message-ID: <l29guu4a27t0iskut7gg0jerp20ocqves6@4ax.com>
Source record: 130403

Thanks everyone. 31 nanoseconds it is. I am installing a Trimble GPS disciplined clock which requires entering in the monitor program the propagation delay time for the feedline between the powered antenna and the receiver. With a 30 dB gain antenna, the Trimble can handle 20 dB loss in the feedline. 20-feet of RG-174/U calculates at about 7 dB. Right now the receiver is locked into the satellites and everything seems to be OK. The 1575 mHz frequency, BTW, is the downlink freq. of the Navistar satellites.

73, Dick - W6CCD

On Fri, 29 Nov 2002 20:22:56 -0500, "J. Harvey"
<JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote:

>"Dick"
>> Does anyone have a chart for the propagation
>> delay of RG-174/U coax? I need to determine
>> the delay in nanoseconds at 1575 mHz for 20 feet
>> of coax.
>
>Google.com has (almost) everything.
>www.google.com/search?q=coaxial+cable+velocity+factor+174
>
>0.66 (66% of 'c') seems to be fairly consistently quoted. That makes your
>20' cable equal to 30' of vacuum, or air. I don't believe it matters if it
>is 1575 mHz or 1575 MHz or anywhere in between. Temperature might matter
>more than frequency.
>
>'c' equals about 1ns per foot (air/vacuum).
>
>Your cable is 30 feet equivalent of air, 30.8 nanoseconds (overly exact
>math), properly rounds to 31 nanoseconds since you wrote "20".
>
>:. 31 nanoseconds.

3465. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 03:20:25 UTC
From: gaschafer@attbi.com
Message-ID: <3de82e2f.32603132@netnews.attbi.com>
Source record: 130404

On 29 Nov 2002 16:00:22 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>Bart Rowlett <bart@wb6hqk.ampr.org> wrote in message
news:<3DE7B54F.A6063C32@wb6hqk.ampr.org>...
>> Alan Fowler wrote:
>> >
>> [stuff deleted]
>>
>> > >>If the ends of the tube are open,it does not
>> > >>matter if you connect the lead to the inner or the >>outer surface of the tube.
>>
>> > >In practice that's true. In order to make a
>> > >connection to the inside, you have to poke a wire
>snip
>A current traveling along the surface launches a wave into the
>> conductor, perpendicular to the conductor surface. The wave is
>> attenuated by 8.6 dB every skin depth and quickly vanishes.
>>
>> bart
>> wb6hqk
>====================
>Glad to see you come in on this thread Bart now that Roy has fled
>after saying that current will always follow the
>shortest DISTANCE instead of best impedance paths. I am really looking
>forward to a exchange of views between knowledgable people regarding
>SKIN EFFECT where each are treated with respect even if there is some disagreement.
>Regards
>Art

You are right in that skin effect is not some certain depth in a
shield at which point all current
stops. Current flows through the full thickness of a conductor or
shield. But it is highly
attenuated the deeper it goes. There are many skin depths in a
conductor, it is not just one
unless the conductor is very thin. One skin depth is defined as the
depth where the current has
dropped by 66%. The next skin depth will drop the current to 66% of
what was left and so on.
It does not take very many skin depths to highly attenuate the signal
to a value that is not
useable or even detectable.

Current on one side of a shield or tube can not get to the other side in any useable quantity
unless the material is extremely thin, meaning only a few skin depths thick. Richard has given the
thickness' involved at rf frequencies.

There are only two other ways that I know of that any current can get to the other side. One is
for the frequency to be reduced low enough so that the effective depth increases for each skin
depth. This has the same effect as reducing the thickness of the material.

The other way is if the resistance of the material over which the current flows is significant to see
a voltage drop in the conductor. This will produce a voltage and thus a current on the other side.

73
Gary K4FMX

3466. Re: Ant Tuner Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 04:41:43 UTC
From: k9sqg@aol.com
Message-ID: <20021129234143.03974.00000127@mb-de.aol.com>
Source record: 130405

It depends on the impedance posed by the antenna on the bands of operation and the style of tuner. If you have a link coupled tuner, a balun is not needed. A double balanced tuner would need a choke balun betwen the tuner and the coax to the transciever. If you have a tuner that only handles coax, then a balun is needed between the open wire line and the tuner.

73s,

Evan

3467. Re: RG-174/U Propagation Delay

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 08:04:29 UTC
From: vswrref@hotmail.com
Message-ID: <3de87016.4773239@national-news.stargate.net>
Source record: 130406

Hi Dick,

To make things a bit more easier on my end, the 1575 mHz you mention
is actually 1.575 gHz, correct?
The reason I point this out is I get a kick out of certain industries
that absolutely make the consumer beleive that a 1000 milligram pill
is not the same as a 1 gram pill. :)

Jeff Y.

On Fri, 29 Nov 2002 19:56:22 -0700, Dick <rhughes33@cableone.net>
wrote:

>Thanks everyone. 31 nanoseconds it is. I am installing a Trimble GPS
>disciplined clock which requires entering in the monitor program the
>propagation delay time for the feedline between the powered antenna
>and the receiver. With a 30 dB gain antenna, the Trimble can handle
>20 dB loss in the feedline. 20-feet of RG-174/U calculates at about 7
>dB. Right now the receiver is locked into the satellites and
>everything seems to be OK. The 1575 mHz frequency, BTW, is the
>downlink freq. of the Navistar satellites.
>
>73, Dick - W6CCD
>
>On Fri, 29 Nov 2002 20:22:56 -0500, "J. Harvey"
><JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote:
>
>>"Dick"
>>> Does anyone have a chart for the propagation
>>> delay of RG-174/U coax? I need to determine
>>> the delay in nanoseconds at 1575 mHz for 20 feet
>>> of coax.
>>
>>Google.com has (almost) everything.
>>www.google.com/search?q=coaxial+cable+velocity+factor+174
>>
>>0.66 (66% of 'c') seems to be fairly consistently quoted. That makes your
>>20' cable equal to 30' of vacuum, or air. I don't believe it matters if it
>>is 1575 mHz or 1575 MHz or anywhere in between. Temperature might matter
>>more than frequency.
>>
>>'c' equals about 1ns per foot (air/vacuum).
>>
>>Your cable is 30 feet equivalent of air, 30.8 nanoseconds (overly exact
>>math), properly rounds to 31 nanoseconds since you wrote "20".

>>
>>:. 31 nanoseconds.
>

3468. FS:Wi-Fi ect. Dish With BiQuad Feed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 10:34:10 UTC
From: "S.A.W" <k1byd@home.com>
Message-ID: <O82cnU9pCZ2VCXWgXTWcog@comcast.com>
Source record: 130407

For Sale :
Primstar dish with Bi-Quad 802.11 feed ---Aprox 27dbi --with
roof mount ---ready to go.
Make offer or for a picture of the dish e-mail me.
hamstuff@comcast.net

3469. Ferrite Core Choke Balun Alternative?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 12:58:21 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <NB2G9.15661$%r6.3717@nwrddc02.gnilink.net>
Source record: 130408

For a 5 Band Quad, I would need probably 50 ferrite cores to make ferrite choke baluns. Kinda expensive. The coax 6 turn trick on a 6" form is good, but rather cumbersome on a Quad. I've heard that loosely packing steel wool into a 2" x 12" PVC tube at the coax end works just as well, although big. Any comments on this? How about winding a coil (no idea how many turns) tightly around the coax jacket and shorting the turns? Maybe tuning the turns to the frequency of interest? It would seem that some configuration of "turns around the coax" would be equivalent to "coax turns". Any thoughts?

'73 KI4Z

mark.hall34@verizon.net

3470. Re: RG-174/U Propagation Delay

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 13:18:22 UTC
From: Dick <rhughes33@cableone.net>
Message-ID: <bgehuuk7ssdtaep1djgsh0290nc0n3teo0@4ax.com>
Source record: 130409

Yes, that's true Jeff. I stated it in megahertz because that's the
way the Trimble manual states it. You pays yer money and takes yer
choice. :-)

Dick

On Sat, 30 Nov 2002 08:04:29 GMT, vswrref@hotmail.com (Jeff Y.) wrote:

>Hi Dick,
>
>To make things a bit more easier on my end, the 1575 mHz you mention
>is actually 1.575 gHz, correct?
>The reason I point this out is I get a kick out of certain industries
>that absolutely make the consumer beleive that a 1000 milligram pill
>is not the same as a 1 gram pill. :)
>
>
>Jeff Y.

3471. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 14:31:22 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211300631.1ab208ce@posting.google.com>
Source record: 130410

k1bqt@aol.com (Rick Littlefield) wrote in message
news:<20021129194637.03027.00000141@mb-cq.aol.com>...
> >There would be a lot more rotatable
> dipoles aplied to under 14 MHz if this newsgroup didn't discourage innovation
> by remaining silent and passive when attacks begin.<
>
> There's nothing special about loaded rotatable dipoles, Art. Stop whining and
> get off the pity pot. If you didn't acquire some valuable insight from your
> recent experieces on here, more's the pity. Lord knows some very credible
> guidance was offered.
>
> Rick K1BQT

No that is not whining at all, it is a fact that innovation is
discouraged.
So I object to the continual harassment of Chip so now you want to hit
at me.
"Lord knows some very credible guidance was offered" That is true and
when you got it you trashed me since you feel I am an easy mark while
others say things
that are trash and you remain silent. If you and Roy want to be
credible policemen of what you consider to be the truth then you
should police ALL which includes Clark whose behavior is terrible. So
I inferred that rotatable dipoles
for below 14 MHZ is really no problem, surely you need something
better than that to intimidate me so that you can continue to harrass
Chip on his own ! The harassment by some to Chip just has to stop,it
has gone on long enough and is now being emulated by others with
others. I see that there is a thread on seven steps to improve ham
radio which is now of incredible length maybe you have a waiting
audience on which you can practice your skills. This newsgroup
consists of a wonderfull group of people who enjoy discussing ham
radio in a friendly way, lets keep it that way.
Art

3472. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 15:37:50 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <uuhmpljome6464@corp.supernews.com>
Source record: 130411

Art Unwin KB9MZ wrote:
> k1bqt@aol.com (Rick Littlefield) wrote in message
news:<20021129194637.03027.00000141@mb-cq.aol.com>...
>
>>>There would be a lot more rotatable
>>
>>dipoles aplied to under 14 MHz if this newsgroup didn't discourage innovation
>>by remaining silent and passive when attacks begin.<
>>
>>There's nothing special about loaded rotatable dipoles, Art. Stop whining and
>>get off the pity pot. If you didn't acquire some valuable insight from your
>>recent experieces on here, more's the pity. Lord knows some very credible
>>guidance was offered.
>>
>>Rick K1BQT
>
>
> No that is not whining at all, it is a fact that innovation is
> discouraged.
> So I object to the continual harassment of Chip so now you want to hit
> at me.
> "Lord knows some very credible guidance was offered" That is true and
> when you got it you trashed me since you feel I am an easy mark while
> others say things
> that are trash and you remain silent. If you and Roy want to be
> credible policemen of what you consider to be the truth then you
> should police ALL which includes Clark whose behavior is terrible. So
> I inferred that rotatable dipoles
> for below 14 MHZ is really no problem, surely you need something
> better than that to intimidate me so that you can continue to harrass
> Chip on his own ! The harassment by some to Chip just has to stop,it
> has gone on long enough and is now being emulated by others with
> others. I see that there is a thread on seven steps to improve ham
> radio which is now of incredible length maybe you have a waiting
> audience on which you can practice your skills. This newsgroup
> consists of a wonderfull group of people who enjoy discussing ham
> radio in a friendly way, lets keep it that way.
> Art

Where can I find a DIY 14 MHz fractal antenna project on the web? I'd
like to try one.
-Bill M

3473. Re: Best plastic for antenna consturction.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 15:41:25 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DE8EA6B.870C2243@townsqr.com>
Source record: 130412

Alan Beagley wrote:

> My local Home Depot used to sell Lexan, but they've either stopeed or it's been moved.

I've found it at a local glass shop, the kind that does car and residential window work. It's pricier than plexiglass. I know nothing of it's UV properties.

Dick

3474. Re: Ferrite Core Choke Balun Alternative?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 15:46:59 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <n8lhuu8c1ikqmgie4gguv2umlser22spv0@4ax.com>
Source record: 130413

On Sat, 30 Nov 2002 12:58:21 GMT, "Mark Hall"
<mark.hall34@verizon.net> wrote:

|For a 5 Band Quad, I would need probably 50 ferrite cores to make ferrite
|choke baluns. Kinda expensive. The coax 6 turn trick on a 6" form is good,
|but rather cumbersome on a Quad. I've heard that loosely packing steel wool
|into a 2" x 12" PVC tube at the coax end works just as well, although big.
|Any comments on this?

You have heard wrong. You can buy a balun kit from Palomar

http://www.palomar-engineers.com/Balun_Kits/balun_kits.html

for $13.50 (shipped) and be done with it. I've found ferrite sleeves
(same as the FB-56 that I believe Palomar uses in their balun kit) at
swap meets for $0.25 each. I use 12 of these on a piece of RG-142 for
a balun on my 40-80 meter dipole.

|How about winding a coil (no idea how many turns)
|tightly around the coax jacket and shorting the turns? Maybe tuning the
|turns to the frequency of interest? It would seem that some configuration
|of "turns around the coax" would be equivalent to "coax turns". Any
|thoughts?

You might stumble into something that works on one band but you have a
5 band antenna remember.

3475. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 15:50:35 UTC
From: Jerry <jerrysplace2@juno.com>
Message-ID: <f75G9.62191$%k2.18032483@twister.socal.rr.com>
Source record: 130414

So would I? Send me a copy please...

de jerry...

> Where can I find a DIY 14 MHz fractal antenna project on the web? I'd
> like to try one.
> -Bill M
>

3476. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 16:05:12 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asanjj$fj2$1@slb3.atl.mindspring.net>
Source record: 130415

Art:

[snip]
> Chip on his own ! The harassment by some to Chip just has to stop,it
> has gone on long enough and is now being emulated by others with
> others. I see that there is a thread on seven steps to improve ham
> radio which is now of incredible length maybe you have a waiting
> audience on which you can practice your skills. This newsgroup
> consists of a wonderfull group of people who enjoy discussing ham
> radio in a friendly way, lets keep it that way.
> Art
[snip]

OK, I believe most of us here support you Art, and your often thought provoking
ideas, and most here even seem cut you a lot more slack than you deserve in respect
of "peer review", considering some of your assertions.

So STOP WHINING it won't make you any friends and it only detracts from your
otherwise excellent efforts here. Take criticism like a man with the rest of us, "if you
can't run with the big dogs then stay on the porch."

Art, YOU are welcome here anytime. BUT please STOP harrasing and defaming the
three "R's" - Roy, Rick & Reg three of the most selfless and foremost contributors of
time, knowledge and effort to this, one of the best, USENET technical newsgroups.

That said... your protestations as to the treatment of Chip are an entirely different matter.

Why you deign to protect a pontification, booring Ivy League, Ph.D. with the most
crass commercial intentions to USE this NG for selfish purposes, I'll never understand.

Heh, heh... Chip certainly does not need Art Unwin to protect him from stupidity!

Despite his overbearing manner, I believe most would cut Chip at least some slack
if he were to follow normal conventions of NG ettiquite. In other words, if Chip stopped
the crass commercialism and crude promotion of his company and its'

products, and if
he quit, attempts to intimidate others with advanced degrees of questionable
applicability,
condescending Ivy League tone and manner, impotent threats of litigation,
poses with
silly "patent pending" postings, and attacks on innocent passersby, rather
than dealing
with pure scientific methods, why then he might actually be accorded some
"respect".

My personal experience with Chip here on this NG, began a few years ago the
very first
time I encountered his postings. I was one of those innocent passersby, in
search of
technical information. I posted a simple straightforward question to him
about
fractal antennas, and "wham" out of the blue, he "trashed" me personally,
questioned
my motives and made fun of my question, and this was on the very first reply
to my
posting. And... I had never heard of him or fractal antennas before that
first encounter.
I was just interested to learn more! It so happens that I am a long time
developer
and user of mathematical optimization theory, techniques, and programs
applied
to several areas of electro-technology. I had just never applied those
techniques to
antennas. And so it seemed to me that although the "new pseudo-science" of
fractal electromagnetics may have been something I was unfamiliar with, I
certainly
was familiar with mathematical optimization. Would this not entitle me to
ask
Chip some innocent questions about his optimization methods? Why not I
thought.

What a creep! Since then I have made it my business to learn more about
fractal
antennas and the so-called new science of "fractal electro-magnetics".

And guess what... it turns out that "so-called fractal electro-magnetic
theory" is no more
than one of an infiinte number of methods of "linear loading". Many of
which are superior
to the fractal methods. And so with such unabashed promotion by Chip, one
may be
excused for considering his brash claims to be almost akin to those other
occasional
"theories" promulgated by opportunistic cream skimmers who attempt to gouge
the
uninformed, and whose patent applications used to be consigned to the

dustbin
by the patent examiners along with with the perpetual motion machine
patents!

Stop questioning Chip you say, heh, heh...Poor Mr. Chip, jull of bluff and
bluster
and overly defensive about a technology for which his outrageous claims of
optimality
are at best extremely marginal.

Art what the heck do you want from the NG? You won't get any slack here by
standing
up for charlatans, opportunists and self-promoters.

Meanwhile continue to make your own contributions and take the questions and
criticism
in the manner in which they are intended. Or... "stay on the porch".

What?

--
Peter K1PO
Indialantic By-the-Sea, FL

3477. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 16:19:59 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211300819.40d1715@posting.google.com>
Source record: 130416

gaschafer@attbi.com (Gary Schafer) wrote in message
news:<3de82e2f.32603132@netnews.attbi.com>...
> On 29 Nov 2002 16:00:22 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
> wrote:
>
snip>
> --
> You are right in that skin effect is not some certain depth in a
> shield at which point all current
> stops. Current flows through the full thickness of a conductor or
> shield. But it is highly
> attenuated the deeper it goes.

So the less material thickness provided the lesser the antennuation !
Is that correct?
If that were true would not efficiency increase as thickness decreases
as long
as overall resistance (area is increased)in not reduced ? That sounds
to good to be true even tho I use very thin aluminum foil as a
conductor and get good results.

There are many skin depths in a
> conductor, it is not just one
> unless the conductor is very thin. One skin depth is defined as the
> depth where the current has
> dropped by 66%. The next skin depth will drop the current to 66% of
> what was left and so on.
> It does not take very many skin depths to highly attenuate the signal
> to a value that is not
> useable or even detectable.

snip>

This raises an important question, if there are 'many skin depths' it
suggests
that when the material is 'very thin' the formula for skin depths goes
out the window. I must be misunderstanding something here,can you
point to where
I misinterpreted what you said.
Best regards
Art
>
> 73
> Gary K4FMX

3478. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 16:20:24 UTC
From: Jerry <jerrysplace2@juno.com>
Message-ID: <cz5G9.62198$%k2.18052422@twister.socal.rr.com>
Source record: 130417

Well said Peter, well said...

de jerry...

"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:asanjj$fj2$1@slb3.atl.mindspring.net...
> Art:
>
> [snip]
> > Chip on his own ! The harassment by some to Chip just has to stop,it
> > has gone on long enough and is now being emulated by others with
> > others. I see that there is a thread on seven steps to improve ham
> > radio which is now of incredible length maybe you have a waiting
> > audience on which you can practice your skills. This newsgroup
> > consists of a wonderfull group of people who enjoy discussing ham
> > radio in a friendly way, lets keep it that way.
> > Art
> [snip]
>
> OK, I believe most of us here support you Art, and your often thought
> provoking
> ideas, and most here even seem cut you a lot more slack than you deserve
in
> respect
> of "peer review", considering some of your assertions.
>
> So STOP WHINING it won't make you any friends and it only detracts from
your
> otherwise excellent efforts here. Take criticism like a man with the rest
> of us, "if you
> can't run with the big dogs then stay on the porch."
>
> Art, YOU are welcome here anytime. BUT please STOP harrasing and defaming
> the
> three "R's" - Roy, Rick & Reg three of the most selfless and foremost
> contributors of
> time, knowledge and effort to this, one of the best, USENET technical
> newsgroups.
>
> That said... your protestations as to the treatment of Chip are an
entirely
> different matter.
>
> Why you deign to protect a pontification, booring Ivy League, Ph.D. with
the

> most
> crass commercial intentions to USE this NG for selfish purposes, I'll
never
> understand.
>
> Heh, heh... Chip certainly does not need Art Unwin to protect him from
> stupidity!
>
> Despite his overbearing manner, I believe most would cut Chip at least
some
> slack
> if he were to follow normal conventions of NG ettiquite. In other words,
if
> Chip stopped
> the crass commercialism and crude promotion of his company and its'
> products, and if
> he quit, attempts to intimidate others with advanced degrees of
questionable
> applicability,
> condescending Ivy League tone and manner, impotent threats of litigation,
> poses with
> silly "patent pending" postings, and attacks on innocent passersby, rather
> than dealing
> with pure scientific methods, why then he might actually be accorded some
> "respect".
>
> My personal experience with Chip here on this NG, began a few years ago
the
> very first
> time I encountered his postings. I was one of those innocent passersby,
in
> search of
> technical information. I posted a simple straightforward question to him
> about
> fractal antennas, and "wham" out of the blue, he "trashed" me personally,
> questioned
> my motives and made fun of my question, and this was on the very first
reply
> to my
> posting. And... I had never heard of him or fractal antennas before that
> first encounter.
> I was just interested to learn more! It so happens that I am a long time
> developer
> and user of mathematical optimization theory, techniques, and programs
> applied
> to several areas of electro-technology. I had just never applied those
> techniques to
> antennas. And so it seemed to me that although the "new pseudo-science"
of
> fractal electromagnetics may have been something I was unfamiliar with, I

> certainly
> was familiar with mathematical optimization. Would this not entitle me to
> ask
> Chip some innocent questions about his optimization methods? Why not I
> thought.
>
> What a creep! Since then I have made it my business to learn more about
> fractal
> antennas and the so-called new science of "fractal electro-magnetics".
>
> And guess what... it turns out that "so-called fractal electro-magnetic
> theory" is no more
> than one of an infiinte number of methods of "linear loading". Many of
> which are superior
> to the fractal methods. And so with such unabashed promotion by Chip, one
> may be
> excused for considering his brash claims to be almost akin to those other
> occasional
> "theories" promulgated by opportunistic cream skimmers who attempt to
gouge
> the
> uninformed, and whose patent applications used to be consigned to the
> dustbin
> by the patent examiners along with with the perpetual motion machine
> patents!
>
> Stop questioning Chip you say, heh, heh...Poor Mr. Chip, jull of bluff and
> bluster
> and overly defensive about a technology for which his outrageous claims of
> optimality
> are at best extremely marginal.
>
> Art what the heck do you want from the NG? You won't get any slack here
by
> standing
> up for charlatans, opportunists and self-promoters.
>
> Meanwhile continue to make your own contributions and take the questions
and
> criticism
> in the manner in which they are intended. Or... "stay on the porch".
>
> What?
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL
>
>
>

>

3479. Re: RG-174/U Propagation Delay

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 16:45:58 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <8X5G9.8419$cx4.1482487@news20.bellglobal.com>
Source record: 130418

"Dick"
> ...stated it in millihertz... :-)

3480. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 16:53:21 UTC
From: k1bqt@aol.com
Message-ID: <20021130115321.06703.00000114@mb-dd.aol.com>
Source record: 130319

Hi Art--

>No that is not whining at all, it is a fact that innovation is discouraged.<

Kinda reminds me of the "Invented Spelling" debate. I doubt anyone has a problem with someone "getting it wrong" in the course of exploring something new for the first time. What I have a problem with is watching someone persist in a poor or wrongful assumption, resist all counsel, and defend their positon with conjured-up science despite credible evidence to the contrary. I don't call that "discouraging innovation" or trashing anyone, I call it education.

Recall discussions held here on critical coupling, controlled fields, CFAs, parasitics caused by photons, and many other quirky topics--none having anything to do with Chip. All having everything to do with the proliferation of flawed science.

BTW, far from being a "technocop", I've never claimed to be the brightest bulb in the technological chandelier--and its not at all unusual for me to get pulled up short for something I've written or said in conversation. But, I don't let that stop me from doing interesting things. Moreover, when Tom, Roy, Steve, (or several others from the pool of excellent resources who frequent this group) point something out, I usually pay attention. Why? Because they're usually right--and becuase I'd rather learn something useful than waste time defending something stupid.

>So I object to the continual harassment of Chip...<

So noted--as I object to the endless parade of threats.

INNOVATION: Introducing changes and new things.

INABILITY: Lacking the means and skills to do things correctly.

The two concepts should never be confused-- especially when the latter is often easy to correct.

--Rick

3481. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 17:19:43 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <ZuFgyiCvMP69EAdS@ifwtech.co.uk>
Source record: 130320

Art Unwin KB9MZ wrote:

>gaschafer@attbi.com (Gary Schafer) wrote
>> --
>> You are right in that skin effect is not some certain depth in a
>> shield at which point all current
>> stops. Current flows through the full thickness of a conductor or
>> shield. But it is highly
>> attenuated the deeper it goes.
>
>So the less material thickness provided the lesser the antennuation !
>Is that correct?

Forgive me, Art, but I don't think the penny has dropped. Let's try a slightly different way of saying the same thing...

For a conductor with a skin depth D at a certain frequency:

63.2% of the total current flows in the outermost layer, from the surface down to depth D. The other 36.8% flows at deeper depths.

86.5% of the total current flows in the layer between the surface and depth 2D. The other 13.5% flows at deeper depths.

95.0% of the total current flows in the layer between the surface and depth 3D. The other 5.0% flows at deeper depths.

98.2% of the total current flows in the layer between the surface and depth 4D. The other 1.8% flows at deeper depths.

Jumping to say 10 skin depths, 99.995% of the current is accounted for. Only 0.005% of the current flows at deeper depths.

Even deeper inside, the current is still there at some calculable level - it never goes exactly to zero, but it's negligible for any purpose (except perhaps when calculating shielding effectiveness at low frequencies or for extremely thin shields).

> if there are 'many skin depths' it
>suggests
>that when the material is 'very thin' the formula for skin depths goes
>out the window.

If the material is only 3 skin depths thick (or 6 if current flows on both sides) then the error in the calculated RF resistance is only 5% - and that's hardly "out the window".

The RF resistance for any arbitrary thin cross-section - comparable with the skin depth, or even less - can be worked out *exactly* with a bit of extra math to allow for the boundary conditions... but it's an intellectual exercise of no practical relevance to amateur radio at HF or above.

> I use very thin aluminum foil as a
>conductor and get good results.
>
Even if you could find foil that's almost as thin as the skin depth, the increased surface area (compared with any practical antenna wire) will more than compensate.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

3482. Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 18:29:52 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asb030$63q$1@sparta.btinternet.com>
Source record: 130322

For more than 100 years advantage has been taken of the fact that 3-phase transmission lines, for the same weight of copper and support, have a significantly lower energy loss than 2-wire lines. Those seeking the ultimate in DX performance at any price should consider what changes will be needed around their antenna farms.

Home-brewing a 3-phase choke-balun is an obvious and easy task. But a 4:1 transformer requires much thought.

A centre-fed horizontal dipole would have to be replaced by a centre-fed horizontal tripole. Vertical and loop antennas would need corresponding modifications.

There will be a race between Japanese and US manufacturers to design and produce the first 3-phase 100-watt, all-HF band transceiver. But no doubt there are a few dark-horses coming up fast. Could be a radio amateur will be first at the winning post.

Much depends on development of an entirely new range of antenna tuners. Just an empty black box? The SWR meter's death knoll is already sounding. The age of the TLI is here.

Revolutionary new computer programs will be needed to predict wierd and wonderful radiation patterns. Has the isotrope been attainable all along?

Reg, G4FGQ

3483. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 18:29:53 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asb031$63q$2@sparta.btinternet.com>
Source record: 130321

> Antennaland has a rich legacy of "innovators" with a perchant for
rewriting
> Maxwell.

==========

They are in good company. Oliver Heaviside was the first of the innovators.
In the field of radio all the others followed on from HIM.

The only thing I associate Maxwell with is an inductance bridge to which his name became attached and which I made great use of in connection with transmission lines, although I understand he was a great man in fields other than electric fluids.

Reg, G4FGQ

3484. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 18:39:09 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <8d1iuu8a5n096stqasj0826kbof6mqe1ji@4ax.com>
Source record: 130323

On Sat, 30 Nov 2002 11:05:12 -0500, "Peter O. Brackett"
<ab4bc@ix.netcom.com> wrote:

Hear! Hear!

|Art:

|OK, I believe most of us here support you Art, and your often thought
|provoking
|ideas, and most here even seem cut you a lot more slack than you deserve in
|respect
|of "peer review", considering some of your assertions.
|
|So STOP WHINING it won't make you any friends and it only detracts from your
|otherwise excellent efforts here. Take criticism like a man with the rest
|of us, "if you
|can't run with the big dogs then stay on the porch."
|
|Art, YOU are welcome here anytime. BUT please STOP harrasing and defaming
|the
|three "R's" - Roy, Rick & Reg three of the most selfless and foremost
|contributors of
|time, knowledge and effort to this, one of the best, USENET technical
|newsgroups.
|
|That said... your protestations as to the treatment of Chip are an entirely
|different matter.
|
|Why you deign to protect a pontification, booring Ivy League, Ph.D. with the
|most
|crass commercial intentions to USE this NG for selfish purposes, I'll never
|understand.
|
|Heh, heh... Chip certainly does not need Art Unwin to protect him from
|stupidity!
|
|Despite his overbearing manner, I believe most would cut Chip at least some
|slack
|if he were to follow normal conventions of NG ettiquite. In other words, if
|Chip stopped
|the crass commercialism and crude promotion of his company and its'
|products, and if
|he quit, attempts to intimidate others with advanced degrees of questionable
|applicability,
|condescending Ivy League tone and manner, impotent threats of litigation,

|poses with
|silly "patent pending" postings, and attacks on innocent passersby, rather
|than dealing
|with pure scientific methods, why then he might actually be accorded some
|"respect".
|
|My personal experience with Chip here on this NG, began a few years ago the
|very first
|time I encountered his postings. I was one of those innocent passersby, in
|search of
|technical information. I posted a simple straightforward question to him
|about
|fractal antennas, and "wham" out of the blue, he "trashed" me personally,
|questioned
|my motives and made fun of my question, and this was on the very first reply
|to my
|posting. And... I had never heard of him or fractal antennas before that
|first encounter.
|I was just interested to learn more! It so happens that I am a long time
|developer
|and user of mathematical optimization theory, techniques, and programs
|applied
|to several areas of electro-technology. I had just never applied those
|techniques to
|antennas. And so it seemed to me that although the "new pseudo-science" of
|fractal electromagnetics may have been something I was unfamiliar with, I
|certainly
|was familiar with mathematical optimization. Would this not entitle me to
|ask
|Chip some innocent questions about his optimization methods? Why not I
|thought.
|
|What a creep! Since then I have made it my business to learn more about
|fractal
|antennas and the so-called new science of "fractal electro-magnetics".
|
|And guess what... it turns out that "so-called fractal electro-magnetic
|theory" is no more
|than one of an infiinte number of methods of "linear loading". Many of
|which are superior
|to the fractal methods. And so with such unabashed promotion by Chip, one
|may be
|excused for considering his brash claims to be almost akin to those other
|occasional
|"theories" promulgated by opportunistic cream skimmers who attempt to gouge
|the
|uninformed, and whose patent applications used to be consigned to the
|dustbin
|by the patent examiners along with with the perpetual motion machine
|patents!

|
|Stop questioning Chip you say, heh, heh...Poor Mr. Chip, jull of bluff and
|bluster
|and overly defensive about a technology for which his outrageous claims of
|optimality
|are at best extremely marginal.
|
|Art what the heck do you want from the NG? You won't get any slack here by
|standing
|up for charlatans, opportunists and self-promoters.
|
|Meanwhile continue to make your own contributions and take the questions and
|criticism
|in the manner in which they are intended. Or... "stay on the porch".
|
|What?

3485. Dee Comm?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 18:41:43 UTC
From: Richard <richard.uk@talk21.com>
Message-ID: <asb0p7$e4i$1@venus.btinternet.com>
Source record: 130324

Hi

Do Dee Comm still exist, I've done a search on google and apart from people owning their antennas I can't find any other information.

Does anyone have a website or contact address for them?

TIA

Richard

3486. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 18:45:13 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <io1iuu4rmcglrhqkcpt5ik99kupkqkig6q@4ax.com>
Source record: 130325

On Sat, 30 Nov 2002 18:29:52 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

|For more than 100 years advantage has been taken of the fact that 3-phase
|transmission lines, for the same weight of copper and support, have a
|significantly lower energy loss than 2-wire lines. Those seeking the
|ultimate in DX performance at any price should consider what changes will be
|needed around their antenna farms.

Wye knot?

3487. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 18:46:14 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211301046.1c5e931d@posting.google.com>
Source record: 130326

Roy Lewallen <w7el@eznec.com> wrote in message news:<uug7co4ooda1ae@corp.supernews.com>...
> Art Unwin KB9MZ wrote:
> > ====================
> > Glad to see you come in on this thread Bart now that Roy has fled
> > after saying that current will always follow the
> > shortest DISTANCE instead of best impedance paths. I am really looking
> > forward to a exchange of views between knowledgable people regarding
> > SKIN EFFECT where each are treated with respect even if there is some disagreement.
> > Regards
> > Art
>
> I object to this untrue attribution. Art, if you can come up with a
> direct quote showing that I said what you claim I said, I'll apologize.
> Otherwise, I expect you to apologize.
>
> Roy Lewallen, W7EL

So you object Roy. Then where the hell were you on that thread which
doubled in length after your comment ? Where were you when the
Australian had a disagreament with you that upset your idea of being
infalliable so you refused to respond. Some say if one does not
respond it is a sign of aquiescence,I don't agree with that
wholehartedly but you DID walk away. You did a similar thing with me
on my antenna idea,after blasting in succession the E/H antenna,
the contrawound antenna, the fractal antenna work a new manufacturers
antenna (two element phased)you took my work as an easy mark to hit
as did another person which led Clerk to attack me with abandon .
Well after lots of harassment even he has had to backdown on the
validity
of the antenna and you were supplying private modelling work in the
background for him.
Now after accepting my claim as valid he then took off after my claim
of gain
(collinear) gain which stopped the subject from going away where you
were wrong by acting hastily after your successes with other peoples
claims. Now the attacks by your friend Clark continue again with the
allegation that I stole an idea from its true inventor(I am too much
of a dummy to come up with a good idea) fortunately I had patented it
years ago, now you talk of apologies.
Well Roy eventually somebody is going to make these antennas in the
future
and you will be seen as not infallable all the time tho I would
suggest that you are correct most of the time. You supplied a
modelling program on my antenna

to Clerk where upon he turn around and agreed with my claim, did that work
provide proof of your prior statements or was it a embarrisment to your position
True I did not debate the antenna ideas in the smartest way and I firmly believe I should have done better in responding to those who inquired with an open mind when I was thinking the worst. Now I am getting disparaging remarks from another for asking for change with respect to one of your enemies, this guy lives close to Chip and has made no secret of his glee of the changes in Chips employment, and you want apologies from me. Well Roy my antennas do work as I say regardless of your putdowns and those of your surrogate,yes they are my ideas and the old patents proved it and some day the harassment of which you were part of may well come out to embarrase you where you assumed that these ideas was nothing more than the trail of claims that you have taken upon yourself to attack. Roy I take no pleasure in exposing your incorrectness especially when you have helped so many but this derisiveness regarding my antennas has gone on to long, especially since they work as I say. If you feel that you are acting on behalf of the truth (you stated earlier something like that 'you will always attack false claims' then you should do that even handedly without reference to 'comedy' and without special deference to a follower
such as Clerk.

Art Unwin KB9MZ......XG

3488. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 18:51:40 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE908BC.6080008@ieee.org>
Source record: 130327

Reg Edwards wrote:
> For more than 100 years advantage has been taken of the fact that 3-phase
> transmission lines, for the same weight of copper and support, have a
> significantly lower energy loss than 2-wire lines.

But wouldn't you need a phasing network at the antenna to put the
signals back in phase? Or maybe a beam with three driven elements?
--
cheers, CAM http://www.qsl.net/w5dxp

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3489. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 18:56:14 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE909CE.5060401@ieee.org>
Source record: 130328

Rick Littlefield wrote:
> Moreover, when Tom, Roy,
> Steve, ... point something out, I usually pay attention. Why? Because they're
> usually right--and becuase I'd rather learn something useful than waste time
> defending something stupid.

Hey Rick, have you ever tried to prove 75 joules + 8.33 joules = 133.33 joules? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3490. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 19:25:12 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <to3iuu8l8oqkogkl0ap6ce9oi0jl8g71qi@4ax.com>
Source record: 130329

On 29 Nov 2002 16:00:22 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:
[snip]

|Glad to see you come in on this thread Bart now that Roy has fled
|after saying that current will always follow the
|shortest DISTANCE instead of best impedance paths. I am really looking
|forward to a exchange of views between knowledgable people regarding
|SKIN EFFECT where each are treated with respect even if there is some disagreement.
|Regards
|Art

Here is what Roy actually said:

"If the connection is to the inner surface, the shortest path to the
outer surface is along the inside to the nearest opening, then out.
This might be a short path or it might be long. If the path is long,
it'll add substantial inductance and, in the case of a small loop,
unnecessary loss."

So speaking of respect, I suggest that you offer Roy your apology,
Art.

3491. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 19:32:58 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <Jn8G9.12958$l45.1638314@news20.bellglobal.com>
Source record: 130331

"Reg Edwards"
> 3-phase transmission lines <for RF>

'Better' Circular Polarization !! Ya hoo !!

3492. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 19:35:12 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211301135.29f96cd0@posting.google.com>
Source record: 130330

Bill M <""exray\"@n-o- .caribe.net> wrote in message
news:<uuhmpljome6464@corp.supernews.com>...
> Art Unwin KB9MZ wrote:
snip
This newsgroup
> > consists of a wonderfull group of people who enjoy discussing ham
> > radio in a friendly way, lets keep it that way.
> > Art

>
> Where can I find a DIY 14 MHz fractal antenna project on the web? I'd
> like to try one.
> -Bill M

Sorry, can't help you there.I know fractal antennas gained a lot of
interest in the past few years but I was not one of them as I was busy
on other things.
I was refering to use of dipoles below 14 MHz of which I am a firm
believer.
Someone brought into the subject 'loaded' dipoles from somewhere which
is fine also,no complaints. There are many people that have yards that
are too small to accomodate large antennas that many brag about but
they are equal in my eyes.
Regards
Art

3493. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 19:50:45 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asb4qk$jk2$1@venus.btinternet.com>
Source record: 130332

> But wouldn't you need a phasing network at the antenna to put the
> signals back in phase? Or maybe a beam with three driven elements?

==========

Having gone to all the trouble and expense of building a 3-phase transmitter
only a pervert would want to revert back to single-phase?

It may be advantageous to revert at the receiving end. Just imagine having
to twiddle 3 crystals and cat's whiskers simultaneously.

3494. Re: Ferrite Core Choke Balun Alternative?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 20:13:43 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <XZ8G9.15829$%r6.44@nwrddc02.gnilink.net>
Source record: 130333

Sorry.. I meant to say I'm using One Coax Feed for each band to a switchbox
on the tower. Each feed point needs a Balun. Using EI7BA's design as a
basis for mine.

mark
"Wes Stewart" <n7ws@nowhere.com> wrote in message
news:n8lhuu8c1ikqmgie4gguv2umlser22spv0@4ax.com...
> On Sat, 30 Nov 2002 12:58:21 GMT, "Mark Hall"
> <mark.hall34@verizon.net> wrote:
>
> |For a 5 Band Quad, I would need probably 50 ferrite cores to make ferrite
> |choke baluns. Kinda expensive. The coax 6 turn trick on a 6" form is
good,
> |but rather cumbersome on a Quad. I've heard that loosely packing steel
wool
> |into a 2" x 12" PVC tube at the coax end works just as well, although
big.
> |Any comments on this?
>
> You have heard wrong. You can buy a balun kit from Palomar
>
> http://www.palomar-engineers.com/Balun_Kits/balun_kits.html
>
> for $13.50 (shipped) and be done with it. I've found ferrite sleeves
> (same as the FB-56 that I believe Palomar uses in their balun kit) at
> swap meets for $0.25 each. I use 12 of these on a piece of RG-142 for
> a balun on my 40-80 meter dipole.
>
> |How about winding a coil (no idea how many turns)
> |tightly around the coax jacket and shorting the turns? Maybe tuning the
> |turns to the frequency of interest? It would seem that some
configuration
> |of "turns around the coax" would be equivalent to "coax turns". Any
> |thoughts?
>
> You might stumble into something that works on one band but you have a
> 5 band antenna remember.

3495. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 20:13:50 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE91BFE.7010106@ieee.org>
Source record: 130334

Reg Edwards wrote:
> Having gone to all the trouble and expense of building a 3-phase transmitter
> only a pervert would want to revert back to single-phase?

But Reg, unless you somehow rephased those three phases, they wouldn't radiate.
A dipole re-phases the ladder-line's phasing with two 90 degree turns. How
many turns at what angles would three phases require?
--
cheers, CAM http://www.qsl.net/w5dxp

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3496. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 20:35:55 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <uui88kmnarp7c2@corp.supernews.com>
Source record: 130335

Art Unwin KB9MZ wrote:
> Bill M <""exray\"@n-o- .caribe.net> wrote in message
news:<uuhmpljome6464@corp.supernews.com>...
>
>>Art Unwin KB9MZ wrote:
>
> snip
> This newsgroup
>
>>>consists of a wonderfull group of people who enjoy discussing ham
>>>radio in a friendly way, lets keep it that way.
>>>Art
>>
>
>>Where can I find a DIY 14 MHz fractal antenna project on the web? I'd
>>like to try one.
>>-Bill M
>
>
> Sorry, can't help you there.I know fractal antennas gained a lot of
> interest in the past few years but I was not one of them as I was busy
> on other things.

I think maybe one of the reasons the fractal idea and its promoter catch such a razzing is because there is nothing out there that people can try for themselves. Its like saying I've got the best so-snd-so but I'm not going to let you see it.

What do you think, Art?

-Bill M

3497. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 20:42:55 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <jp9G9.37763$hK4.3324262@bgtnsc05-news.ops.worldnet.att.net>
Source record: 130336

"Fractenna" <fractenna@aol.com> wrote in message
news:20021126152120.14034.00000257@mb-fm.aol.com...
> I told you where to look.
>

I presume you mean to post the results on www.n1ir.com. Is this correct?

> It will appear, and the issue will be non-existent.
>
> The bigger issue--which has been orchestrated (and I use that word
correctly)
> by a handful of 'senior' antenna folks (tell us who they are, Steve) is
the
> dubious issue of 'fractals do no better than other
small/broadband/frequency
> independent/antennas'.
>
> The answer is 'yes'.
>

Stop being so paranoid. Nothing has been orchestrated. The only "problem" here is that someone outside the fractal community has placed your work and the work of others in the fractal field, under a fine microscope and questioned your hypothesis on the significance of fractal geometry. Unfortunately, the only way you know how to deal with this is to cry foul and make claims of some great conspiracy.

Had you and the others approached this issue scientifically and even bothered to compare antennas with fractal geometries to antennas having the same physical properties and only differing in geometry, you wouldn't be in this situation.

Steve VE9SRB

3498. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 21:13:48 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211301313.50a64972@posting.google.com>
Source record: 130337

"Rick Karlquist" <richard@karlquist.remove.this.com> wrote in message
news:<LlwF9.168864$1O2.11668@sccrnsc04>...
> "Thomas C. Sefranek" <WA1RHP@ARRL.net> wrote in message
> news:IKmF9.4730$yy.639624@newsread1.prod.itd.earthlink.net...
> > > Does anyone have suggestions on a type of radio and antenna to improve
> > > my reception.
> >
> > Wire:
> > As High as you can,
> > As Long as you can,
> > Ground, equally as long.
> > >
>
> Nonsense: that advice would be relevant for a TRANSMITTING
> antenna. For receiving, a ferrite rod or tuned loop is far better
> than a random wire. No matter how high or long it is. Unless
> it is a Beverage antenna, in which case it should be a long
> as you can, but as LOW as you can (even laying on the ground).
> In no case AFAIK is ground particularly critical for receiving.
> Been there, done that.
>
> Rick N6RK

I would have to agree. I have both methods of receiving MW. IE: large
wire antennas, and a tuned loop. I'd have to go with the loop any day.
On MW, using an overly large wire antenna is fine, except that you
pretty much have overkill as far as signal input, and the signals come
a blasting from every direction.
Not really desirable as far as picking out certain stations where
there is likely to be interference. My round 16 loop is much better at
weeding these stations out of the muck. Much better for nulling out
local noise also. And the loop without a preamp still gives plenty of
signal. Another plus to the loop is reduced sideband splatter from
adjacent stations, as the loop is quite hi-Q. The audio is generally
cleaner. Also less prone to picking up static crashes. A beverage is
nice, but I don't have that kind of room. I tried my loop out in my
truck on an old delco AM-FM I use. Worked very well, and very hi-Q.
You had to retune just moving a small amount. But was a very hot setup
for MW if you can live without a digi display. Here in the house, I
usually use my 706mk2g on MW. MK

http://web.wt.net/~nm5k/

3499. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 21:14:46 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <un8iuugjhsh0f0vrq4fquqf2qslv9oq9ih@4ax.com>
Source record: 130338

On Sat, 30 Nov 2002 11:37:50 -0400, Bill M <""exray\"@n-o-
.caribe.net> wrote:

>> which includes Clark whose behavior is terrible. So
>> I inferred that rotatable dipoles
>> for below 14 MHZ is really no problem, surely you need something
>> better than that to intimidate me so that you can continue to harrass
>> Chip on his own ! The harassment by some to Chip just has to stop,it
>> has gone on long enough and is now being emulated by others with
>> others. I see that there is a thread on seven steps to improve ham
>> radio which is now of incredible length maybe you have a waiting
>> audience on which you can practice your skills. This newsgroup
>> consists of a wonderfull group of people who enjoy discussing ham
>> radio in a friendly way, lets keep it that way.
>> Art
>
>Where can I find a DIY 14 MHz fractal antenna project on the web? I'd
>like to try one.
>-Bill M

Hi Bill,

Simply visit:
http://www.qsl.net/kb7qhc/antenna/fractal/index.htm
The bulk of my work is pedestrian, lock step, monotonous and exact.
It in no stretch of the imagination comes close to "practical," so
scan the pages and results. I closely examine a couple dozen fractal
models to illuminate their advantages and shortfalls.

You might even visit one page in particular:
http://www.qsl.net/kb7qhc/antenna/fractal/n1ir/k2/index.htm
which, if you read the URL closely reveals one proposed "practical"
design and my simpler alternative. This design reveals one of the
amusing traits of fractals specsmanship, but I will leave that for you
to discover. :-)

Practical is quoted to denote the self-irony implicit in its
association with things fractal.

I have far more than the 300+ pages the top link leads to, so if you
find any interest merely ask (every antenna published at the same link
has an EZNEC file available for immediate download, or ask me because
I lost some DIY's from links to other pages I've written). I would
caution that most of this "practical" design requires a considerable
investment in maintaining a complex geometry. For my DIY's, I
typically design a wire antenna supported by a fan of guide ropes -

but there a picture is worth a thousand words.

73's
Richard Clark, KB7QHC

3500. Re: 144/440 Vertical over aHF beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 21:16:14 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0211301316.1cab0465@posting.google.com>
Source record: 130339

"RalphE" <K4ffa@comcast.net> wrote in message news:<dDCdncYmppSQMnqgXTWcoQ@comcast.com>...
> Can anyone tell me how far above a HF beam (Force 12 C4SXL) do I need to put
> a 2 meter/ 440 vertical (GP-9}on the mast pipe.?
>
> Please reply direct to KB4I@comcast.net
>
> Thanks,
>
> Phillip KB4I

Being a vertical, it doesn't really matter. It could be a foot above
the beam and be ok. MK

http://web.wt.net/~nm5k/

3501. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 21:18:44 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <nmaiuu4sku3cndo6h5ohgd138p2v3vf91t@4ax.com>
Source record: 130340

On Sat, 30 Nov 2002 15:50:35 GMT, "Jerry" <jerrysplace2@juno.com>
wrote:

>So would I? Send me a copy please...
>
>de jerry...
>
>> Where can I find a DIY 14 MHz fractal antenna project on the web? I'd
>> like to try one.
>> -Bill M
>>
>

Hi Jerry,

I won't duplicate my response to Bill here, except to repeat one link:
http://www.qsl.net/kb7qhc/antenna/fractal/index.htm
for reference.

As offered to Bill, if you see anything interesting, but it remains
intimidating (not unusual for most folks - these are complex
monsters), ask me to stretch it to your band if you wish.

73's
Richard Clark, KB7QHC

3502. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 21:23:52 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <18bG9.103269$%j3.95975@news.bellsouth.net>
Source record: 130349

Right or Left CP?

--
73,
Chuck
KE4ETH
Remove the obvious from Email.

"J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote in message
news:Jn8G9.12958$l45.1638314@news20.bellglobal.com...
> "Reg Edwards"
> > 3-phase transmission lines <for RF>
>
> 'Better' Circular Polarization !! Ya hoo !!
>
>

3503. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 21:29:32 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <6fbiuuk7r21t04omde0u7tonglfevr8135@4ax.com>
Source record: 130341

On Sat, 30 Nov 2002 17:19:43 +0000, "Ian White, G3SEK"
<G3SEK@ifwtech.co.uk> wrote:

>> I use very thin aluminum foil as a
>>conductor and get good results.
>>
>Even if you could find foil that's almost as thin as the skin depth, the
>increased surface area (compared with any practical antenna wire) will
>more than compensate.
>
>
>--
>73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
> Editor, 'The VHF/UHF DX Book'

Hi Ian,

You can't find foil that thin. It has to come supported on a milar
film - the type used to shield computer cables and RF transmission
lines. ;-)

73's
Richard Clark, KB7QHC

3504. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 21:41:10 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asbb9lbtf1@knossos.btinternet.com>
Source record: 130342

Cecil, I said the dipole would be replaced with a TRI-pole.

A TRI-pole consists of three horizontal 1/2-wave wires spaced at 120
degrees. The three phases would be fed directly from the three line wires.

I've only just invented the thing! Can't test one till some kind person
loans me a 3-phase 2m transmitter. 3-core appliance power cable will
suffice for the feedline.

My first thought was that the system would radiate perfectly
omni-directional in the horizontal plane with a nice vertical null similar
to but even better than a turnstyle.

But I havn't thought very hard about it.

Should one of us think again ?

Any independent opinions?

What does Terman say ?

I guess the radiation resistance between each phase is around 50 ohms. Who
needs Eznec?

Reg, G4FGQ
==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========
"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DE91BFE.7010106@ieee.org...
> Reg Edwards wrote:
> > Having gone to all the trouble and expense of building a 3-phase
transmitter
> > only a pervert would want to revert back to single-phase?
>
> But Reg, unless you somehow rephased those three phases, they wouldn't
radiate.
> A dipole re-phases the ladder-line's phasing with two 90 degree turns. How
> many turns at what angles would three phases require?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----

> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3505. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 21:48:20 UTC
From: gaschafer@attbi.com
Message-ID: <3de92f05.4462047@netnews.attbi.com>
Source record: 130343

On 30 Nov 2002 08:19:59 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>gaschafer@attbi.com (Gary Schafer) wrote in message
news:<3de82e2f.32603132@netnews.attbi.com>...
>> On 29 Nov 2002 16:00:22 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
>> wrote:
>>
>snip>
>> --
>> You are right in that skin effect is not some certain depth in a
>> shield at which point all current
>> stops. Current flows through the full thickness of a conductor or
>> shield. But it is highly
>> attenuated the deeper it goes.
>
>So the less material thickness provided the lesser the antennuation !
>Is that correct?
>If that were true would not efficiency increase as thickness decreases
>as long
>as overall resistance (area is increased)in not reduced ? That sounds
>to good to be true even tho I use very thin aluminum foil as a
>conductor and get good results.
>

The less attenuation to the other side of the conductor, assuming the
conductor is a shield or
tube, in which case you do NOT want the current to go to the other
side.

With a wire as a conductor, as you reduce the size of the wire the
current will flow closer to the
center than it did with the larger wire but as you go to a smaller
wire you loose surface area that
is all important in rf. The net result is loss in conduction area as
the skin depth is so small. Most
all significant conduction takes place so close to the surface.

>There are many skin depths in a
>> conductor, it is not just one
>> unless the conductor is very thin. One skin depth is defined as the
>> depth where the current has
>> dropped by 66%. The next skin depth will drop the current to 66% of
>> what was left and so on.
>> It does not take very many skin depths to highly attenuate the signal

>> to a value that is not
>> useable or even detectable.
>
>snip>
>
>This raises an important question, if there are 'many skin depths' it
>suggests
>that when the material is 'very thin' the formula for skin depths goes
>out the window. I must be misunderstanding something here,can you
>point to where
>I misinterpreted what you said.

No the formula does not "go out the window". It is still the same. The
skin effect is exponential,
just like the discharge curve that a capacitor and resistor gives. It
is called one skin depth when
the current has dropped about 2/3 of full value. It does not mean that
there is no more. It is just
a means of measuring it.
See Richard Harrisons post that gives some examples of how thin the
material is to be
considered "one skin depth" at various frequencies.

If you had a piece of material that was only one skin depth thick then
approximately 1/3 of the
current would reach the other side.

Ian has summed it up nicely as to how the current decays as depth
increases.

73
Gary K4FMX

>Best regards
>Art
>>
>> 73
>> Gary K4FMX

3506. Re: Problems With EDZ Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 21:53:35 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <mtbiuu0hvmfli7jerb6jsbc6dokvf3dnbc@4ax.com>
Source record: 130344

On Fri, 29 Nov 2002 21:11:02 -0500, "William M. Bickley"
<bickley@dmv.com> wrote:

>Hi, Richard:
>
>The amp, the transceiver and the computer (where I have the hum as well) are
>all running off the same circuit. I have the problem without using the amp
>at all, though.
>
>I *think* the housewide audio is on a different circuit, but there's all
>kinds of coax running from it in the same storage room as the window wire.
>I guess there are multiple opportunities for trouble.

BINGO! Depending on the actual fact of the matter, this is a classic
Ground Loop scenario. The object and the solution is to break the
loop.

>
>I will try the extension cord test to see if there is an improvement.
>
Some how this feels like it will fail given your description above.

>Now that I look, the window wire passes through the wall into my shack in an
>area which may be uncomfortably close to the 110 v. Romex running from
>receptacle to receptacle. I may try relocating the point of entry into the
>shack. I have not checked Cecil's question about how the window line is
>positioned versus itself, but will do so. That never crossed my mind. I
>guess I was expected too much of balanced line....

Don't give up yet. Your problems, as described, have nothing to do
with balanced or unbalanced lines (nor shielding, nor proximity).

However, as a counter-test to that assertion:
1. Place rig into a controlled, interfering mode;
2. Move rig output to dummy load;
report difference in symptoms here.

>
>Bill W2ET
>

Hi Bill,

If any extension cord test will work, it will have to work from the
rig's plug, not the interfered system - it is much to complex, as you
describe, to decouple. You may ultimately have to find an outlet that
has a dedicated breaker to prove this.

Another alternative is to extend to an outlet on the same breaker, but one that is closer to the breaker. You are then throwing the line loss into the extension, which is isolated and whose potential (at the rig's floating ground) cannot be injected into the interfered system.

Normally, the huge cross-connections of grounds would not be a problem with your usual household electronics. This is simply a convenient circumstance of luck, not design.

73's
Richard Clark, KB7QHC

3507. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 22:06:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uuididkkh24v89@corp.supernews.com>
Source record: 130345

It's sad that this is the best you can do for an apology for publicly attributing to me a statement I didn't make.

I don't answer a lot of your postings because frankly, I can't understand what you're trying to say. Those that I do understand are often devoid of any technical information that I can comment on. And I have no interest in engaging in the sort of pissing contest your most recent posting exemplifies. You've had your say, to which you're entitled. It contains adequate information for readers to decide for themselves whether it represents an accurate description of my character and motives, without a response in kind.

And I certainly don't respond to every posting, even every one directed toward me. To do so would be to drag threads out interminably after everything relevant has been said. A time comes in every discussion where the reader has to decide for himself what to believe, based on what's been said. My choice of when to quit posting and when not to quit might not suit you, but then I learned long ago that I can't please everyone.

I'm frankly tired of defending skin effect. There's ample information available for anyone who can read, in countless volumes published during the past century. The principles are as well established as Ohm's law, and I certainly don't feel it should be necessary in a forum like this to have to defend Ohm's law. For those who eschew books, there's a great deal of accurate (and almost certainly inaccurate, so be careful) information available on the web. And there have been many, many postings and explanations here on this newsgroup, easily accessible from http://www.groups.google.com. Anyone too lazy to learn how to avail himself of these resources and put a modicum of thought into the matter isn't worth the time and effort to continually respond to.

Roy Lewallen, W7EL

Art Unwin KB9MZ wrote:
> Roy Lewallen <w7el@eznec.com> wrote in message
news:<uug7co4ooda1ae@corp.supernews.com>...
>
>>Art Unwin KB9MZ wrote:
>>
>>>>====================
>>>Glad to see you come in on this thread Bart now that Roy has fled
>>>after saying that current will always follow the
>>>shortest DISTANCE instead of best impedance paths. I am really looking
>>>forward to a exchange of views between knowledgable people regarding
>>>SKIN EFFECT where each are treated with respect even if there is some disagreement.

>>>Regards
>>>Art
>>
>>I object to this untrue attribution. Art, if you can come up with a
>>direct quote showing that I said what you claim I said, I'll apologize.
>>Otherwise, I expect you to apologize.
>>
>>Roy Lewallen, W7EL
>
>
> So you object Roy. Then where the hell were you on that thread which
> doubled in length after your comment ? Where were you when the
> Australian had a disagreament with you that upset your idea of being
> infalliable so you refused to respond. Some say if one does not
> respond it is a sign of aquiescence,I don't agree with that
> wholehartedly but you DID walk away. You did a similar thing with me
> on my antenna idea,after blasting in succession the E/H antenna,
> the contrawound antenna, the fractal antenna work a new manufacturers
> antenna (two element phased)you took my work as an easy mark to hit
> as did another person which led Clerk to attack me with abandon .
> Well after lots of harassment even he has had to backdown on the
> validity
> of the antenna and you were supplying private modelling work in the
> background for him.
> Now after accepting my claim as valid he then took off after my claim
> of gain
> (collinear) gain which stopped the subject from going away where you
> were wrong by acting hastily after your successes with other peoples
> claims. Now the attacks by your friend Clark continue again with the
> allegation that I stole an idea from its true inventor(I am too much
> of a dummy to come up with a good idea) fortunately I had patented it
> years ago, now you talk of apologies.
> Well Roy eventually somebody is going to make these antennas in the
> future
> and you will be seen as not infallable all the time tho I would
> suggest that you are correct most of the time. You supplied a
> modelling program on my antenna
> to Clerk where upon he turn around and agreed with my claim, did that
> work
> provide proof of your prior statements or was it a embarrisment to
> your position
> True I did not debate the antenna ideas in the smartest way and I
> firmly believe I should have done better in responding to those who
> inquired with an open mind when I was thinking the worst. Now I am
> getting disparaging remarks from another for asking for change with
> respect to one of your enemies, this guy lives close to Chip and has
> made no secret of his glee of the changes in Chips employment, and you
> want apologies from me. Well Roy my antennas do work as I say
> regardless of your putdowns and those of your surrogate,yes they are
> my ideas and the old patents proved it and some day the harassment of

> which you were part of may well come out to embarrase you where you
> assumed that these ideas was nothing more than the trail of claims
> that you have taken upon yourself to attack. Roy I take no pleasure in
> exposing your incorrectness especially when you have helped so many
> but this derisiveness regarding my antennas has gone on to long,
> especially since they work as I say. If you feel that you are acting
> on behalf of the truth (you stated earlier something like that 'you
> will always attack false claims' then you should do that even handedly
> without reference to 'comedy' and without special deference to a
> follower
> such as Clerk.
>
> Art Unwin KB9MZ......XG

3508. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 22:08:48 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <gldiuughops0dde7j12d7mg6t6si3fp6hd@4ax.com>
Source record: 130346

On Sat, 30 Nov 2002 14:13:50 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Reg Edwards wrote:
>> Having gone to all the trouble and expense of building a 3-phase transmitter
>> only a pervert would want to revert back to single-phase?
>
>But Reg, unless you somehow rephased those three phases, they wouldn't radiate.
>A dipole re-phases the ladder-line's phasing with two 90 degree turns. How
>many turns at what angles would three phases require?

Hi Cecil,

Synchros and Servos have been resolving three-phase fields into a
simple, single resultant vector for centuries.

It's still nothing more than phase.

73's
Richard Clark, KB7QHC

3509. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 22:09:35 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <8sdiuuksl0ktasnvnj95o0eh8hku3pb9v9@4ax.com>
Source record: 130347

On Sat, 30 Nov 2002 14:32:58 -0500, "J. Harvey"
<JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote:

>"Reg Edwards"
>> 3-phase transmission lines <for RF>
>
>'Better' Circular Polarization !! Ya hoo !!
>
Not Spiral Polarization?

3510. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 22:14:11 UTC
From: k1bqt@aol.com
Message-ID: <20021130171411.01552.00000151@mb-cr.aol.com>
Source record: 130348

>Hey Rick, have you ever tried to prove 75 joules + 8.33 joules = 133.33 joules? :-)<

No, and I've never shot an armadillo at 100 yards with a .357 while drunk on my ass. Life still has many challenges to offer! :-)<

3511. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 22:49:42 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asbfa0$d1$1@slb6.atl.mindspring.net>
Source record: 130350

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:asb4qk$jk2$1@venus.btinternet.com...
> > But wouldn't you need a phasing network at the antenna to put the
> > signals back in phase? Or maybe a beam with three driven elements?
>
> ==
>
> Having gone to all the trouble and expense of building a 3-phase
transmitter
> only a pervert would want to revert back to single-phase?
>
> It may be advantageous to revert at the receiving end. Just imagine
having
> to twiddle 3 crystals and cat's whiskers simultaneously.
>
>
>
>
>

3512. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 22:50:25 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asbfbbqat1@slb9.atl.mindspring.net>
Source record: 130351

Reg:

Heh, heh... in the land of the one eared Ham, the three eared ham is king!

--
Peter K1PO
Indialantic By-the-Sea, FL

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:asb4qk$jk2$1@venus.btinternet.com...
> > But wouldn't you need a phasing network at the antenna to put the
> > signals back in phase? Or maybe a beam with three driven elements?
>
> ==
>
> Having gone to all the trouble and expense of building a 3-phase
transmitter
> only a pervert would want to revert back to single-phase?
>
> It may be advantageous to revert at the receiving end. Just imagine
having
> to twiddle 3 crystals and cat's whiskers simultaneously.
>
>
>
>
>

3513. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 22:51:16 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asbfcu$j9d$1@slb9.atl.mindspring.net>
Source record: 130352

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:gldiuughops0dde7j12d7mg6t6si3fp6hd@4ax.com...
> On Sat, 30 Nov 2002 14:13:50 -0600, OC_CAM's Razor
> <Cecil.A.Moore@ieee.org> wrote:
>
> >Reg Edwards wrote:
> >> Having gone to all the trouble and expense of building a 3-phase
transmitter
> >> only a pervert would want to revert back to single-phase?
> >
> >But Reg, unless you somehow rephased those three phases, they wouldn't
radiate.
> >A dipole re-phases the ladder-line's phasing with two 90 degree turns.
How
> >many turns at what angles would three phases require?
>
> Hi Cecil,
>
> Synchros and Servos have been resolving three-phase fields into a
> simple, single resultant vector for centuries.
>
> It's still nothing more than phase.
>
> 73's
> Richard Clark, KB7QHC

3514. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 22:54:33 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asbfj4$r5a$1@slb0.atl.mindspring.net>
Source record: 130353

Art:

"Oh, grow up!"

--
Peter K1PO
Indialantic By-the-Sea, FL

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
news:85ed38d.0211301046.1c5e931d@posting.google.com...
> Roy Lewallen <w7el@eznec.com> wrote in message
news:<uug7co4ooda1ae@corp.supernews.com>...
> > Art Unwin KB9MZ wrote:
> > > ====================
> > > Glad to see you come in on this thread Bart now that Roy has fled
> > > after saying that current will always follow the
> > > shortest DISTANCE instead of best impedance paths. I am really looking
> > > forward to a exchange of views between knowledgable people regarding
> > > SKIN EFFECT where each are treated with respect even if there is some
disagreement.
> > > Regards
> > > Art
> >
> > I object to this untrue attribution. Art, if you can come up with a
> > direct quote showing that I said what you claim I said, I'll apologize.
> > Otherwise, I expect you to apologize.
> >
> > Roy Lewallen, W7EL
>
> So you object Roy. Then where the hell were you on that thread which
> doubled in length after your comment ? Where were you when the
> Australian had a disagreament with you that upset your idea of being
> infalliable so you refused to respond. Some say if one does not
> respond it is a sign of aquiescence,I don't agree with that
> wholehartedly but you DID walk away. You did a similar thing with me
> on my antenna idea,after blasting in succession the E/H antenna,
> the contrawound antenna, the fractal antenna work a new manufacturers
> antenna (two element phased)you took my work as an easy mark to hit
> as did another person which led Clerk to attack me with abandon .
> Well after lots of harassment even he has had to backdown on the
> validity
> of the antenna and you were supplying private modelling work in the
> background for him.
> Now after accepting my claim as valid he then took off after my claim
> of gain

> (collinear) gain which stopped the subject from going away where you
> were wrong by acting hastily after your successes with other peoples
> claims. Now the attacks by your friend Clark continue again with the
> allegation that I stole an idea from its true inventor(I am too much
> of a dummy to come up with a good idea) fortunately I had patented it
> years ago, now you talk of apologies.
> Well Roy eventually somebody is going to make these antennas in the
> future
> and you will be seen as not infallable all the time tho I would
> suggest that you are correct most of the time. You supplied a
> modelling program on my antenna
> to Clerk where upon he turn around and agreed with my claim, did that
> work
> provide proof of your prior statements or was it a embarrisment to
> your position
> True I did not debate the antenna ideas in the smartest way and I
> firmly believe I should have done better in responding to those who
> inquired with an open mind when I was thinking the worst. Now I am
> getting disparaging remarks from another for asking for change with
> respect to one of your enemies, this guy lives close to Chip and has
> made no secret of his glee of the changes in Chips employment, and you
> want apologies from me. Well Roy my antennas do work as I say
> regardless of your putdowns and those of your surrogate,yes they are
> my ideas and the old patents proved it and some day the harassment of
> which you were part of may well come out to embarrase you where you
> assumed that these ideas was nothing more than the trail of claims
> that you have taken upon yourself to attack. Roy I take no pleasure in
> exposing your incorrectness especially when you have helped so many
> but this derisiveness regarding my antennas has gone on to long,
> especially since they work as I say. If you feel that you are acting
> on behalf of the truth (you stated earlier something like that 'you
> will always attack false claims' then you should do that even handedly
> without reference to 'comedy' and without special deference to a
> follower
> such as Clerk.
>
> Art Unwin KB9MZ......XG

3515. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 22:59:55 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <rmgiuucrov1b0h99jbgd8mues6h79hcd63@4ax.com>
Source record: 130354

QSW

3516. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 23:04:04 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asbgdl$i4m$1@slb5.atl.mindspring.net>
Source record: 130355

Rick:

[snip]
"Rick Littlefield" <k1bqt@aol.com> wrote in message
news:20021130171411.01552.00000151@mb-cr.aol.com...
> >Hey Rick, have you ever tried to prove 75 joules + 8.33 joules = 133.33
> joules? :-)<
>
> No, and I've never shot an armadillo at 100 yards with a .357 while drunk
on my
> ass. Life still has many challenges to offer! :-)<
[snip]

Just the other night two armadillos came wandering across the street and up
my driveway
diddling along right into my backyard and started digging up the radials, I
don't own a
0.357, what should I do?

PS: Brevard County, FL issues concealed carry permits to non-felons.

--
Peter K1PO
Indialantic By-the-Sea, FL

3517. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 23:08:39 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asbgdhlpt1@slb0.atl.mindspring.net>
Source record: 130356

Reg:

[snip]
> The only thing I associate Maxwell with is an inductance bridge to which
his
> name became attached and which I made great use of in connection with
> transmission lines, although I understand he was a great man in fields
other
> than electric fluids.
> ---
> Reg, G4FGQ
[snip]

Ahhh... The Maxwell Bridge, excellent! I've used it myself in the
"modernized"
Op-Amp version.

Back in the 19th Century every electro-scientist worth his salt had a
"bridge"
named after him.

Ever used a "Brooklyn Bridge"? How about a London Bridge?

I always wondered who VSWR was, and why she got a bridge named after
herself.!

--
Peter K1PO
Indialantic By-the-Sea, FL

3518. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 23:10:07 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asbgg8$6gs$1@slb2.atl.mindspring.net>
Source record: 130357

Steve:

[snip]
> Had you and the others approached this issue scientifically and even
> bothered to compare antennas with fractal geometries to antennas having
the
> same physical properties and only differing in geometry, you wouldn't be
in
> this situation.
>
> Steve VE9SRB
[snip]

Narrow minds breed narrow thinking!

--
Peter K1PO
Indialantic By-the-Sea, FL

3519. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 23:16:19 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DE946C3.20103@ieee.org>
Source record: 130358

Peter O. Brackett wrote:
> Just the other night two armadillos came wandering across the street and up
> my driveway
> diddling along right into my backyard and started digging up the radials, I
> don't own a
> 0.357, what should I do?

Colt 0.45 works just fine.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3520. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 23:28:21 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asbhifjji1@slb1.atl.mindspring.net>
Source record: 130359

[snip]
"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:rmgiuucrov1b0h99jbgd8mues6h79hcd63@4ax.com...
> QSW
[snip]

TNX OM

QTA NR 2 es NR 3

QSD?

QSG 3?

QSM?

QSZ?

QTB?

QRG?

73

SK DE K1PO AR

3521. Re: Problems With EDZ Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-11-30 23:59:16 UTC
From: "William M. Bickley" <bickley@dmv.com>
Message-ID: <uuik6mjsafm53a@corp.supernews.com>
Source record: 130360

Richard:

I tuned the transceiver to one of the offending bands (10 M). Hung a dummy load off the tuner. Switched the tuner go directly to that output, instead of the window wire. No problems. No hum, no interference, no issues. Full power from the rig at 1:1 SWR.

Bill W2ET

"Richard Clark" <kb7qhc@attbi.com> wrote in message news:mtbiuu0hvmfli7jerb6jsbc6dokvf3dnbc@4ax.com...
> On Fri, 29 Nov 2002 21:11:02 -0500, "William M. Bickley"
> <bickley@dmv.com> wrote:
>
> >Hi, Richard:
> >
> >The amp, the transceiver and the computer (where I have the hum as well) are
> >all running off the same circuit. I have the problem without using the amp
> >at all, though.
> >
> >I *think* the housewide audio is on a different circuit, but there's all
> >kinds of coax running from it in the same storage room as the window wire.
> >I guess there are multiple opportunities for trouble.
>
> BINGO! Depending on the actual fact of the matter, this is a classic
> Ground Loop scenario. The object and the solution is to break the
> loop.
>
> >
> >I will try the extension cord test to see if there is an improvement.
> >
> Some how this feels like it will fail given your description above.
>
> >Now that I look, the window wire passes through the wall into my shack in an
> >area which may be uncomfortably close to the 110 v. Romex running from
> >receptacle to receptacle. I may try relocating the point of entry into the
> >shack. I have not checked Cecil's question about how the window line is
> >positioned versus itself, but will do so. That never crossed my mind. I
> >guess I was expected too much of balanced line....
>

> Don't give up yet. Your problems, as described, have nothing to do
> with balanced or unbalanced lines (nor shielding, nor proximity).
>
> However, as a counter-test to that assertion:
> 1. Place rig into a controlled, interfering mode;
> 2. Move rig output to dummy load;
> report difference in symptoms here.
>
> >
> >Bill W2ET
> >
>
> Hi Bill,
>
> If any extension cord test will work, it will have to work from the
> rig's plug, not the interfered system - it is much to complex, as you
> describe, to decouple. You may ultimately have to find an outlet that
> has a dedicated breaker to prove this.
>
> Another alternative is to extend to an outlet on the same breaker, but
> one that is closer to the breaker. You are then throwing the line
> loss into the extension, which is isolated and whose potential (at the
> rig's floating ground) cannot be injected into the interfered system.
>
> Normally, the huge cross-connections of grounds would not be a problem
> with your usual household electronics. This is simply a convenient
> circumstance of luck, not design.
>
> 73's
> Richard Clark, KB7QHC

3522. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 00:09:05 UTC
From: k1bqt@aol.com
Message-ID: <20021130190905.27890.00008259@mb-mf.aol.com>
Source record: 130361

>I don't own a 0.357, what should I do?<

Call me!

Rick K1BQT

3523. Re: Three Phase Antenna Feedlines Burst Ballons

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 00:16:37 UTC
From: "J. Keith Carter" <j.keith.carter@sympatico.ca>
Message-ID: <3DE954E5.7323FBA7@sympatico.ca>
Source record: 130362

Sorry to burst your balloon Reg, But many years ago Hydro quebec went from three phase transmission to DC on their 750 Kv lines from Churchill falls on James bay to southern Quebec.More than 1000 miles. More efficient and less loss. Maybe you can model that for your antenna feed lines. Check it out on their history of their James Bay Hydro development program. Keith, VE3JKC, ex VE2ANC.

Reg Edwards wrote:

> For more than 100 years advantage has been taken of the fact that 3-phase
> transmission lines, for the same weight of copper and support, have a
> significantly lower energy loss than 2-wire lines. Those seeking the
> ultimate in DX performance at any price should consider what changes will be
> needed around their antenna farms.
>
> Home-brewing a 3-phase choke-balun is an obvious and easy task. But a 4:1
> transformer requires much thought.
>
> A centre-fed horizontal dipole would have to be replaced by a centre-fed
> horizontal tripole. Vertical and loop antennas would need corresponding
> modifications.
>
> There will be a race between Japanese and US manufacturers to design and
> produce the first 3-phase 100-watt, all-HF band transceiver. But no doubt
> there are a few dark-horses coming up fast. Could be a radio amateur will
> be first at the winning post.
>
> Much depends on development of an entirely new range of antenna tuners. Just
> an empty black box? The SWR meter's death knoll is already sounding. The age
> of the TLI is here.
>
> Revolutionary new computer programs will be needed to predict wierd and
> wonderful radiation patterns. Has the isotrope been attainable all along?
> ---
> Reg, G4FGQ

3524. Re: Three Phase Antenna Feedlines Burst Ballons

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 00:37:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uuimdqfq3asq02@corp.supernews.com>
Source record: 130363

Hm, that would work for us, too. The trick is to dangle your transmitter
at the feed point, and send it B+ via a DC "transmission line". If you
took as much care with your insulators as Hydro Quebec does, it'd be
sho' 'nuff efficient, too, all right. I'll leave the technical details
to the reader.

Roy Lewallen, W7EL

J. Keith Carter wrote:
> Sorry to burst your balloon Reg, But many years ago Hydro quebec went from three
> phase transmission to DC on their 750 Kv lines from Churchill falls on James bay
> to southern Quebec.More than 1000 miles. More efficient and less loss. Maybe
> you can model that for your antenna feed lines. Check it out on their history of
> their James Bay Hydro development program. Keith, VE3JKC, ex VE2ANC.

3525. Re: Three Phase Antenna Feedlines Burst Ballons

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 00:37:39 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <mRcG9.13087$l45.1695193@news20.bellglobal.com>
Source record: 130364

"J. Keith Carter"
> Hydro quebec went from three
> phase transmission to DC on
> their 750 Kv lines from Churchill
> falls on James bay to southern
> Quebec.

Great idea. All the hams that worry about feedline loss will end up on the
same frequency - DC. ;-)

3526. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 00:45:27 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <GYcG9.13090$l45.1696908@news20.bellglobal.com>
Source record: 130367

"Reg Edwards"
> 3-phase transmission lines <for RF>

"J. Harvey"
> 'Better' Circular Polarization !! Ya hoo !!

"Chuck/KE4ETH"
> Right or Left CP?

From which side are you looking (at my new 3-phase antenna) ?

3527. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 00:46:26 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <BZcG9.13091$l45.1697131@news20.bellglobal.com>
Source record: 130368

"Richard Clark"
> Not Spiral Polarization?

Yes, you're right - when operating mobile.

3528. Re: Three Phase Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 00:47:55 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asbm7q$t2f$1@knossos.btinternet.com>
Source record: 130365

Just a thought - as Cecil says it's the Devil who makes me do it, perhaps
3-phase fractal antennas are worthy of investigation.

I understand radio propagation in cluttered environments, as with mobile
phones, rotation of polarisation at the transmitter improves reception
reliability. Spirally rotated waves in both directions, available with
3-phase transmitters, may offer even greater reliability.

Fractenna, any comments?

Reg G4FGQ

3529. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 00:47:56 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asbm7r$t2f$2@knossos.btinternet.com>
Source record: 130366

> >I don't own a 0.357, what should I do?<
==========

Get yourself a 9mm !

3530. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 00:58:28 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211301658.6cb4cee4@posting.google.com>
Source record: 130269

Wes I have apologised many times to people to avoid a fight but all it does
is bring more derrision
Roy used the term 'shortest path' which is 'distance' and I referred to that particular word in reference to the 'shortest path'
It was not a long question by me...All I said was what has 'distance' got to do with it? His response was he didn't understand!!!!!!
For crying out loud it couldn't have been that hard to see
the words 'shortest path' which means shortest distance in his own post! I referred to it again referencing 'hangups' with the word 'distance' where reference to impedance path would be more apropriate as the thread got longer but again he did not respond.
Then he did the same to Fowler who then started another 'follow up' thread in an attempt to get a response to which Clerk joined in as is customery. I have no problem with the vast majority of Roy's responses or even his idea about going after antenna untruthswhen he feels like it,but he is not infallable, and the fact that I as a nobody would question what he said doesn't justify his disdain.
I respect the man for his terrific knoweledge but as an individual I am beginning to have questions
since he worked with Clerk in degrading both my work and integrity.

Wes, your advice is probably good and I would do it in a second to cut this bickering out. But I have done it before and the contempt continues
as if winning a debate is more important than the truth,
that I am whineing because I disagree with a guru when I am only a nothing,
not a name or a guru..
I may not be the greatest in defending my integrity but I have seen what has happened to others so I am not going to hide,I am not going away regardles how many times I am hit, I will fight back and stay in the ring until rendered unconcious so that they who attack me will have cause to think again when they choose another prey.
Best regards to you Wes, and thanks for taking the time to post even tho I reject the suggestion. I consider you as part of the vast majority on this newsgroup who are both polite and respectful even tho I may many times suggested the rediculous and I very much appreciate that as most are terrific people.
What I say about my past experiments are the truth. I am not lying !. (I did notice yesterday Clark belittle the old 13 element experiment I did in a snide sort of way again) The claims for my antennas are true. I also did not steal the idea of capacitive coupling as stated

which my old patent should should have dismissed. Despite what Clerk
said yesterday about one of my questions ,I follow the aproach of not
asking just one expert but asking many experts, of which there are not
enough of if I got involved in some threads. Can't we all move on and
stop attacking Chip? What ever he did or didn't do I believe he has
suffered enough. Maybe by doing that this malaise that some have in
America that if you don't agree with me then you are against me, will
cease and we can get back to antennas rather than people, foreigners
and winning debates.
Happy weekend to EVERYBODY.
Art KB9MZ.......XG

(XG means I come from a race that does not run away regardless of the
odds)

Wes Stewart <n7ws@nowhere.com> wrote in message
news:<to3iuu8l8oqkogkl0ap6ce9oi0jl8g71qi@4ax.com>...
> On 29 Nov 2002 16:00:22 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
> wrote:
> [snip]
>
> |Glad to see you come in on this thread Bart now that Roy has fled
> |after saying that current will always follow the
> |shortest DISTANCE instead of best impedance paths. I am really looking
> |forward to a exchange of views between knowledgable people regarding
> |SKIN EFFECT where each are treated with respect even if there is some disagreement.
> |Regards
> |Art
>
> Here is what Roy actually said:
>
> "If the connection is to the inner surface, the shortest path to the
> outer surface is along the inside to the nearest opening, then out.
> This might be a short path or it might be long. If the path is long,
> it'll add substantial inductance and, in the case of a small loop,
> unnecessary loss."
>
> So speaking of respect, I suggest that you offer Roy your apology,
> Art.

3531. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 01:03:50 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asbn5hdan1@slb3.atl.mindspring.net>
Source record: 130270

[snip]
"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:asbm7r$t2f$2@knossos.btinternet.com...
> > >I don't own a 0.357, what should I do?<
> ====================
>
> Get yourself a 9mm !
[snip]

Heh, heh... Reg... Now you'r talkin. I'll bet those beachside armadillos
will respect my old Belgian made
FN 9mm pistol... but my dear wife has thrown out all my 9mm ammo. She
worries that I might go "postal",
after finishing off the radial grubbing armadillos. She worries,
unecessarily, that I might carry on to the local
coral snakes, the alligators, men-o-war, sharks, and other such denizens of
the beachside. The worst are
the two foot long "palmetto bugs" who want to come onto the patio for a bite
of steak while it's still on
the grill. I am always amazed by the number of "mean critters" we have here
on the Florida barrier islands.

--
Peter K1PO
Indialantic By-the-Sea, FL

3532. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 01:26:08 UTC
From: k1bqt@aol.com
Message-ID: <20021130202608.01478.00000089@mb-cr.aol.com>
Source record: 130271

Hi Reg--

Had a 9mm Kahr with an elite trigger and cobalt nightsites. Sold it. Not only did my pants glow in the dark, the trigger pull was so light I was afraid of de-zippering my Dockers whenever I reached for my keys! Now I carry plastic throw-away Kel-Tecs in my belt, change pocket, sock, hat, undershorts, and briefcase. Welcome to America.

Rick K1BQT

3533. Re: Problems With EDZ Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 01:54:34 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <1tpiuu8p5lj0tl2c17sos18et5i48qttdd@4ax.com>
Source record: 130272

On Sat, 30 Nov 2002 18:59:16 -0500, "William M. Bickley"
<bickley@dmv.com> wrote:

>Richard:
>
>I tuned the transceiver to one of the offending bands (10 M). Hung a dummy
>load off the tuner. Switched the tuner go directly to that output, instead
>of the window wire. No problems. No hum, no interference, no issues. Full
>power from the rig at 1:1 SWR.
>
>
>Bill W2ET
>

Hi Bill,

Now we are getting somewhere. Did you in fact determine that it was interfering before switching to the Dummy Load? Just firing up in a problematic band is not enough.

But, in all confidence of your ability, it would seem this is not a conductive RFI, such as I described with moving plugs around.

Given this positive result, you can now examine those things that have drawn your suspicion, such as proximity. If you can rummage up another transmission line that you can run through another path (so you can do A/B testing) you might be able to touch upon the answer.

This may be difficult, but attempt to fire up the line with it terminated by a Dummy Load (but only if you have a 4:1 balun to use in the transition to the Load).

Another way to determine the state of your transmission line is to measure the currents in each leg to see how much imbalance has been cast into your antenna system (for that is the apparent problem from this new test's results). This is probably not something you are prepared to do, by lacking RF current meters.

You can rig up your own if you have any meter, and a hell box full of components (find a toroid; signal diode: 1N914 style or better; a cap; a resistor). Knowing you have an unbalance (also called Common Mode) does not bring a solution, but it does allow you to see how much of the problem improves, remains, or becomes worse as you experiment.

This will confirm any issues of proximity and shielding, but this may easily be a simple antenna geometry problem (your system is beneath one leg of a low element - solution is the inverse of the problem).

73's
Richard Clark, KB7QHC

3534. Re: Three Phase Antenna Feedlines Burst Ballons

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 02:02:58 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <5criuu08f5nirhb272nt00ost7fqab5mqj@4ax.com>
Source record: 130273

On Sat, 30 Nov 2002 19:16:37 -0500, "J. Keith Carter"
<j.keith.carter@sympatico.ca> wrote:

>Sorry to burst your balloon Reg
Here goes your's Keith,

Back at the turn of the last century, there was an Italian town
serviced with the mechanical power of the mountain falls through a
wire rope and pulley transmission line system - higher than 90%
efficient.

As Doug Adam's would say "Keep banging those rocks together fellows."

73's
Richard Clark, KB7QHC

3535. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 02:06:30 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <uuirkai6rc78ff@corp.supernews.com>
Source record: 130274

Rick Littlefield wrote:
> Hi Reg--
>
> Had a 9mm Kahr with an elite trigger and cobalt nightsites. Sold it. Not only
> did my pants glow in the dark, the trigger pull was so light I was afraid of
> de-zippering my Dockers whenever I reached for my keys! Now I carry plastic
> throw-away Kel-Tecs in my belt, change pocket, sock, hat, undershorts, and
> briefcase. Welcome to America.
>
> Rick K1BQT

What are Kel-Tecs?
-WX4A

3536. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 02:12:06 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211301812.6f2bba4c@posting.google.com>
Source record: 130275

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
news:<ZuFgyiCvMP69EAdS@ifwtech.co.uk>...
> Art Unwin KB9MZ wrote:
>
> >gaschafer@attbi.com (Gary Schafer) wrote
> >> ----------
> >> You are right in that skin effect is not some certain depth in a
> >> shield at which point all current
> >> stops. Current flows through the full thickness of a conductor or
> >> shield. But it is highly
> >> attenuated the deeper it goes.
> >
> >So the less material thickness provided the lesser the antennuation !
> >Is that correct?
>
> Forgive me, Art, but I don't think the penny has dropped. Let's try a
> slightly different way of saying the same thing...
>
> For a conductor with a skin depth D at a certain frequency:
>
> 63.2% of the total current flows in the outermost layer, from the
> surface down to depth D. The other 36.8% flows at deeper depths.
>
> 86.5% of the total current flows in the layer between the surface and
> depth 2D. The other 13.5% flows at deeper depths.
>
> 95.0% of the total current flows in the layer between the surface and
> depth 3D. The other 5.0% flows at deeper depths.
>
> 98.2% of the total current flows in the layer between the surface and
> depth 4D. The other 1.8% flows at deeper depths.
>
> Jumping to say 10 skin depths, 99.995% of the current is accounted for.
> Only 0.005% of the current flows at deeper depths.
>
> Even deeper inside, the current is still there at some calculable level
> - it never goes exactly to zero, but it's negligible for any purpose
> (except perhaps when calculating shielding effectiveness at low
> frequencies or for extremely thin shields).

Totally understood and I am comfortable with what you have said.
>
> > if there are 'many skin depths' it
> >suggests

> >that when the material is 'very thin' the formula for skin depths goes
> >out the window.

> If the material is only 3 skin depths thick (or 6 if current flows on
> both sides) then the error in the calculated RF resistance is only 5% -
> and that's hardly "out the window".
Now we are getting to the nitty gritty, it is suggested that skin
depths are an exact science and I question this.
If I use a material for low frequencies that is as thin or thinner
than a stated 'SKIN DEPTH' then there must be a change in thinking.
If we are to agree (and I think we do) then there must be a large
change in the so called skin depth after all the material started off
at the same thicknes!
Since the current does not get thru which I have personally confirmed
in experiments, then there has to be a increase in current flow per
unit depth . Where can I be wrong with this (you can be blunt)?
If I am correct then what is the effect on actual radiation, something
for nothing? The change in skin depth for this thin material must be
quite drastic, more so than a minuit correction factor as stated
with use of a formula. Let me be more simplistic, thickness of
material
0.001 inches, stated skin depth for the stated use 0.001 inches
Formula states this depth takes care of 60% of current flow (actually
less
because the current does not penetrate fully.
So what conclusions can we come to 1 the skin depth must have
changed radically i.e. denser current flow at the surface 2 current
energy changes form ie heat

> The RF resistance for any arbitrary thin cross-section - comparable with
> the skin depth, or even less - can be worked out *exactly* with a bit of
> extra math to allow for the boundary conditions... but it's an
> intellectual exercise of no practical relevance to amateur radio at HF
> or above.
>

For me it is important to understand exactly what happens ,
I am not nitpicking tho I may be retarded
>
> > I use very thin aluminum foil as a
> >conductor and get good results.
> >
> Even if you could find foil that's almost as thin as the skin depth, the
> increased surface area (compared with any practical antenna wire) will
> more than compensate.

Exactly...this again suggests a radical change in skin depth
is happening. I am not saying that others are incorrect in their
stance,
just that I see skin depths as being emperical rather than absolute
mathmatically derived because of the admittance of a 'correction

factor'.
If I wasn't actually using a thin metal shell as a radiator then this sort of stuff would not come up but then what would you expect from someone such as I?
Thanks for having another shot of overcoming my understanding abilities.
Art

3537. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 02:40:38 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DE984E9.4E1E7BEC@townsqr.com>
Source record: 130276

Richard Clark wrote:

> On Sat, 30 Nov 2002 15:50:35 GMT, "Jerry" <jerrysplace2@juno.com>
> wrote:
>
> >So would I? Send me a copy please...
> >
> >de jerry...
> >
> >> Where can I find a DIY 14 MHz fractal antenna project on the web? I'd
> >> like to try one.
> >> -Bill M
> >>
> >
>
> Hi Jerry,
>
> I won't duplicate my response to Bill here, except to repeat one link:
> http://www.qsl.net/kb7qhc/antenna/fractal/index.htm
> for reference.
>
> As offered to Bill, if you see anything interesting, but it remains
> intimidating (not unusual for most folks - these are complex
> monsters), ask me to stretch it to your band if you wish.

Hey Rich, that started me thinking. Do these Fractennas lend themselves well to parasitic operation? For that matter do magnetic loops? Are they that different? How about a Fractal Magnetic Loop parasitic element antenna? Maybe I should check your website first to see what's there. When I asked Fracky a few years ago about some specificics so I could make up one to try he got all huffy and insisted the information was all on his website. If it was it was *very* well hidden from view.

Dick

3538. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 02:54:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uuiuf8l3roqj08@corp.supernews.com>
Source record: 130277

Skin effect is an exact science, and only one quantity is called the "skin depth" for a given homogeneous material. The skin depth is easy to calculate, and the formula can be found in a great many references. But it's easy to misunderstand what it means. If a conductor is many skin depths thick, the current density decays exponentially from the surface, and the current density at any given depth is easily calculated. The skin depth is the exponent of the exponential factor in the equation relating current density to depth. At one skin depth, the current is 1/e (e^-1) ~ 37% of the density at the surface. At two skin depths, the current is e^-2 times the surface density, and so forth. An interesting and fortuitous mathematical oddity is that the effective resistance of a conductor many skin depths thick happens to be exactly the same as if the current density were constant with depth and equal to the surface density, but abruptly stopped at one skin depth. This makes RF resistance calculations easy, but although it gives the correct results, it isn't a representation of what's really happening.

The point I think Art is trying to pursue is: What if the conductor isn't at least several skin depths thick? The answer is that the current still decreases with depth, but not at the same rate as it does when the conductor is thicker. The calculation can still be done, but it's no longer one you can punch out on your calculator. The calculation involves using Kelvin functions, which are related to complex Bessel functions. I'm quite sure the general problem can't be solved in closed form, but requires numerical methods. Given the required computing capability, however, the current at any depth and at the surfaces can be computed just as surely as it can with thicker conductors. Incidentally, calculation for non-homogeneous materials (e.g., plated wire) also requires numerical methods unless each layer is at least several skin depths thick.

Skin depths are very shallow for good conductors at HF or even MF and above (and decrease with increasing frequency), so the assumption that the material is at least several skin depths thick is usually a good one when dealing with RF.

Considering how simple the calculation is, I'm sure that Art and anyone else interested in this topic have done the skin depth calculation for materials of interest. Art, you're interested in aluminum foil. How many skin depths thick is the foil you're using at the frequencies at which you're using it? If it's at least 3 skin depths thick or so (where the current has decayed to about 5% of the surface density), calculation using the common assumption of exponentially decreasing current should be adequate for most uses. If it's shallower than this, then the more difficult numerical methods should be used if you require an accurate

answer.

Roy Lewallen, W7EL

Art Unwin KB9MZ wrote:
>
> Now we are getting to the nitty gritty, it is suggested that skin
> depths are an exact science and I question this.
> If I use a material for low frequencies that is as thin or thinner
> than a stated 'SKIN DEPTH' then there must be a change in thinking.
> If we are to agree (and I think we do) then there must be a large
> change in the so called skin depth after all the material started off
> at the same thicknes!
> Since the current does not get thru which I have personally confirmed
> in experiments, then there has to be a increase in current flow per
> unit depth . Where can I be wrong with this (you can be blunt)?
> If I am correct then what is the effect on actual radiation, something
> for nothing? The change in skin depth for this thin material must be
> quite drastic, more so than a minuit correction factor as stated
> with use of a formula. Let me be more simplistic, thickness of
> material
> 0.001 inches, stated skin depth for the stated use 0.001 inches
> Formula states this depth takes care of 60% of current flow (actually
> less
> because the current does not penetrate fully.
> So what conclusions can we come to 1 the skin depth must have
> changed radically i.e. denser current flow at the surface 2 current
> energy changes form ie heat
>
>
>>The RF resistance for any arbitrary thin cross-section - comparable with
>>the skin depth, or even less - can be worked out *exactly* with a bit of
>>extra math to allow for the boundary conditions... but it's an
>>intellectual exercise of no practical relevance to amateur radio at HF
>>or above.
>>
>
>
> For me it is important to understand exactly what happens ,
> I am not nitpicking tho I may be retarded
>
>>>I use very thin aluminum foil as a
>>>conductor and get good results.
>>>
>>
>>Even if you could find foil that's almost as thin as the skin depth, the
>>increased surface area (compared with any practical antenna wire) will
>>more than compensate.
>
>
> Exactly...this again suggests a radical change in skin depth

> is happening. I am not saying that others are incorrect in their
> stance,
> just that I see skin depths as being emperical rather than absolute
> mathmatically derived because of the admittance of a 'correction
> factor'.
> If I wasn't actually using a thin metal shell as a radiator then
> this sort of stuff would not come up but then what would you expect
> from someone such as I?
> Thanks for having another shot of overcoming my understanding
> abilities.
> Art

3539. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 03:00:44 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ntuiuu8c9nfl75p539284f0l22tc9fj3fk@4ax.com>
Source record: 130278

On Sun, 01 Dec 2002 02:40:38 GMT, Dick Carroll <dixie@townsqr.com>
wrote:

>
>
>Richard Clark wrote:
>
>> On Sat, 30 Nov 2002 15:50:35 GMT, "Jerry" <jerrysplace2@juno.com>
>> wrote:
>>
>> >So would I? Send me a copy please...
>> >
>> >de jerry...
>> >
>> >> Where can I find a DIY 14 MHz fractal antenna project on the web? I'd
>> >> like to try one.
>> >> -Bill M
>> >>
>> >
>>
>> Hi Jerry,
>>
>> I won't duplicate my response to Bill here, except to repeat one link:
>> http://www.qsl.net/kb7qhc/antenna/fractal/index.htm
>> for reference.
>>
>> As offered to Bill, if you see anything interesting, but it remains
>> intimidating (not unusual for most folks - these are complex
>> monsters), ask me to stretch it to your band if you wish.
>
> Hey Rich, that started me thinking. Do these Fractennas lend themselves
>well to parasitic operation? For that matter do magnetic loops? Are they that
>different? How about a Fractal Magnetic Loop parasitic element antenna?
>Maybe I should check your website first to see what's there. When I asked
>Fracky a few years ago about some specificics so I could make up one to try
>he got all huffy and insisted the information was all on his website. If it
>was it was *very* well hidden from view.
>
>Dick

Hi Dick,

In all probability it is as hidden at my site, but more a matter of
not seeing the forrest for the trees.

Do they lend themselves to parasitic operation: no more better or worse than many shortened and loaded.

There are only two relationships that matter for fractal benefits
1. You seek something small and resonant;
2. You seek something large and wideband.
Small being less than quarterwave, and large meaning more than 1 wavelength (often two).

My pages go volumes in just these two characteristics examination against frequency and form (over iteration).

Results are in, no one at the other end will appreciate your effort.

However, I do include a few loops. I will browse their address a little later for you.

73's
Richard Clark, KB7QHC

3540. Crank-Up Winch?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 03:15:31 UTC
From: jackinariz@webtv.net
Message-ID: <1637-3DE97ED3-702@storefull-2136.public.lawson.webtv.net>
Source record: 130282

I want to make a crank-up winch setup that will raise & lower my 35' mast setup.....Problem is I can't find the winch anywhere.....I have looked at sites that i think might have them to no avail.....Most are motorized, starting about $350.00.....I just want a crank-up that has a spool that will hold about 50' cable...Thanks All. Jack D....KD7RUF

3541. Re: Three Phase Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 03:17:15 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <lu-dne4le9ZY43SgXTWcpA@comcast.com>
Source record: 130279

Reg,

Living in G-Land you obviously never worked for AT&T or IBM. Their solution
is simple, if it won't work on 26 ga twisted pair, put it on fiber.

Tam/WB2TT
"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:asbm7q$t2f$1@knossos.btinternet.com...
> Just a thought - as Cecil says it's the Devil who makes me do it, perhaps
> 3-phase fractal antennas are worthy of investigation.
>
> I understand radio propagation in cluttered environments, as with mobile
> phones, rotation of polarisation at the transmitter improves reception
> reliability. Spirally rotated waves in both directions, available with
> 3-phase transmitters, may offer even greater reliability.
>
> Fractenna, any comments?
> ---
> Reg G4FGQ
>
>

3542. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 03:22:41 UTC
From: k1bqt@aol.com
Message-ID: <20021130222241.07809.00008680@mb-mn.aol.com>
Source record: 130280

>What are Kel-Tecs?<

Model P-32 compact polymer 7-round locked-breech .32 semi-automatic pistol made by Kel-Tec CNC Industries in Florida.

Rick K1BQT

3543. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 03:38:00 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211301938.7d3ad229@posting.google.com>
Source record: 130281

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<asb031$63q$2@sparta.btinternet.com>...
> > Antennaland has a rich legacy of "innovators" with a perchant for
> rewriting
> > Maxwell.
>
> ==========
>
> They are in good company. Oliver Heaviside was the first of the innovators.
> In the field of radio all the others followed on from HIM.
>
> The only thing I associate Maxwell with is an inductance bridge to which his
> name became attached and which I made great use of in connection with
> transmission lines, although I understand he was a great man in fields other
> than electric fluids.
> ---
> Reg, G4FGQ

Reg, Please do not believe that I have an intent to harass or defame
you.
I have no idea where that idea came from other than it gives some
length to a particular paragraph.Such ideas that also include that I
must accept being called a thief and a liar or otherwise be considered
as a whiner is pretty hard to take. Either way I am a great follower
of your posts that are devoid of phony postures and gets down to
actual facts and are devoid of old wives tales.
My best regards
Art

3544. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 03:51:13 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <uuj1olq0fgmle7@corp.supernews.com>
Source record: 130283

Rick Littlefield wrote:
>>What are Kel-Tecs?<
>
>
> Model P-32 compact polymer 7-round locked-breech .32 semi-automatic pistol made
> by Kel-Tec CNC Industries in Florida.
>
> Rick K1BQT

And you carry 6 or 7 of them at a time in your socks and drawers? Kewl!
The Terminator!

-Bill

3545. Re: Three Phase Antenna Feedlines Burst Ballons

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 03:59:16 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asc1ei$130$1@venus.btinternet.com>
Source record: 130284

I'm not a power engineer but I'll waffle on for a bit.

The trouble with trans-continental AC power lines is phase shift and a tendency to develop standing waves. There are problems with synchronising widely spaced generating stations specially under fault conditions. And believe it or not, at power frequencies there are significant losses due to skin effect in the conductors. A small increase in diameter to reduce such loss increases weight, wind and ice loading, and the cost of everything. I wouldn't be surprised if these days aluminium over high-tensile steel is the favourite.

Despite losses in the AC-DC and the DC-AC converters the lower cost of constructing and maintaining single wire power lines shifts the balance. The cost of electricity generation in different parts of a continent affect choice of transmission system. If it's cheap nobody minds if some of it is lost. Coal, oil, hydro-electric, tidal, atomic.

Another economic factor is construction and maintenance of ground electrodes. Buried radial systems get warm and gradually dry out. So soil resistance increases. Or they suffer from electrolytic corrosion. Undersea (salt water) DC cables allow low resistance submerged earth plates. But fish are not very happy. Differences in age and performance of generating plant also affect economics. Things change with plant lifetime.

An important consideration is the potential difference between the ground electrodes at each end of the route. This is caused by rotation of the earth and tidal flows in the seas and oceans across the the Earth's magnetic field. On trans-Atlantic phone cables, where submerged bi-directional amplifiers are powered by constant current DC power supplies from each end, the potential difference between N.America and W.Europe can rise to several thousand volts at the peaks of solar-caused magnetic storms. Amplifier power supplies allow for a maximum difference of 10 KV. It was one of the old-timers (Wheatstone, or was it Faraday?) who first noticed and measured the voltage induced in a wire under the river Thames. It varied with the tidal flow of the water.

Before connecting your hand-held multi-range meter to the inner conductor of a 3000-mile coaxial cable with the aid of a crocodile (English) clip, it is advisable to use the insulated shorting-rod thoughtfully provided.

There are many DC power transmission systems in various parts of the globe. Around 1955 I first found formulae for calculating the resistance of various ground electrode systems for given ground conductivity in a Russian article describing a trans-Siberian DC power route from a hydro-electric power station across the Urals into populated areas. The ideas are incorporated in a few of my programs having been amended to give sufficiently accurate

estimates of ground loss at RF.

For a number of years there has been a power cable (25 miles?) under the English Channel. Presumably it is used to equalise peak generator loads between the UK and W.Europe at different times of the day. No need for synchronisation of rotating machines. French electricity must be cheaper than ours - 90 percent of the French stuff is atomic and the rest is hydro-electric or tidal. Or thereabouts.

If anyone should ask what's the DC resistance between two places on the Earth's surface more than a mile apart - it's zero. Everthing is contained in the ground electrodes plus crocodile clips.

Reg, G4FGQ

--
==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========
"J. Keith Carter" <j.keith.carter@sympatico.ca> wrote in message
news:3DE954E5.7323FBA7@sympatico.ca...
> Sorry to burst your balloon Reg, But many years ago Hydro quebec went from
three
> phase transmission to DC on their 750 Kv lines from Churchill falls on
James bay
> to southern Quebec.More than 1000 miles. More efficient and less loss.
Maybe
> you can model that for your antenna feed lines. Check it out on their
history of
> their James Bay Hydro development program. Keith, VE3JKC, ex VE2ANC.
>
> Reg Edwards wrote:
>
> > For more than 100 years advantage has been taken of the fact that
3-phase
> > transmission lines, for the same weight of copper and support, have a
> > significantly lower energy loss than 2-wire lines. Those seeking the
> > ultimate in DX performance at any price should consider what changes
will be
> > needed around their antenna farms.
> >
> > Home-brewing a 3-phase choke-balun is an obvious and easy task. But a
4:1
> > transformer requires much thought.
> >
> > A centre-fed horizontal dipole would have to be replaced by a centre-fed
> > horizontal tripole. Vertical and loop antennas would need corresponding
> > modifications.
> >

> > There will be a race between Japanese and US manufacturers to design and
> > produce the first 3-phase 100-watt, all-HF band transceiver. But no
doubt
> > there are a few dark-horses coming up fast. Could be a radio amateur
will
> > be first at the winning post.
> >
> > Much depends on development of an entirely new range of antenna tuners.
Just
> > an empty black box? The SWR meter's death knoll is already sounding. The
age
> > of the TLI is here.
> >
> > Revolutionary new computer programs will be needed to predict wierd and
> > wonderful radiation patterns. Has the isotrope been attainable all
along?
> > ---
> > Reg, G4FGQ
>

3546. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 04:01:55 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0211302001.380b47ef@posting.google.com>
Source record: 130285

Bill M <""exray\"@n-o- .caribe.net> wrote in message
news:<uui88kmnarp7c2@corp.supernews.com>...
> Art Unwin KB9MZ wrote:
> > Bill M <""exray\"@n-o- .caribe.net> wrote in message
news:<uuhmpljome6464@corp.supernews.com>...
> >
> >>Art Unwin KB9MZ wrote:
> >
> > snip
> > This newsgroup
> >
> >>>consists of a wonderfull group of people who enjoy discussing ham
> >>>radio in a friendly way, lets keep it that way.
> >>>Art
> >>
>
> >>Where can I find a DIY 14 MHz fractal antenna project on the web? I'd
> >>like to try one.
> >>-Bill M
> >
> >
> > Sorry, can't help you there.I know fractal antennas gained a lot of
> > interest in the past few years but I was not one of them as I was busy
> > on other things.
>
> I think maybe one of the reasons the fractal idea and its promoter catch
> such a razzing is because there is nothing out there that people can try
> for themselves. Its like saying I've got the best so-snd-so but I'm not
> going to let you see it.
>
> What do you think, Art?
>
> -Bill M
Hi Bill. I don't know if we have communicated before but I recognise
the underlinninmg theme. I did not and have not hidden anything. I
subjected myself to the withering interogation by Clerk and gave
figures and facts the best I could even though I considered the method
to be objectionable and I was not privy to that which Roy was
supplying him. At one time he even admitted Iwas correct in my claim
and then went on with the attacks. I also supplied a page
in a attempt to clarify.Others brought to the attention of the group
patent
numbers that describe what I say. The same goes for capacitive
coupling where the allegation was that I stole it from the real

inventor and where I had described in detail how it works and why it works. I can't see how you can
suggest that I am making claims that others cannot prove for themselves.
If I misread your post then I apologise for my response
Regards
Art

3547. Re: Three Phase Antenna Feedlines Burst Ballons

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 04:12:10 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <s_fG9.9673$cx4.1624112@news20.bellglobal.com>
Source record: 130287

"Reg Edwards"
> The trouble with trans-continental
> AC power lines is phase shift and a
> tendency to develop standing waves.
> There are problems with synchronising
> widely spaced generating stations...

Also, peak voltage is a limiting factor. The DC voltage can obviously be
set just below the limit and thus carry more average power than AC.

3548. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 04:14:56 UTC
From: tdonaly@aol.com
Message-ID: <20021130231456.21083.00008117@mb-fx.aol.com>
Source record: 130286

>
>Art:
>
>"Oh, grow up!"
>
>--
>Peter K1PO
>Indialantic By-the-Sea, FL
>

That's rich, coming from you, Peter. Thanks for the
laugh.

Tom Donaly, KA6RUH

3549. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 04:17:50 UTC
From: tdonaly@aol.com
Message-ID: <20021130231750.21083.00008118@mb-fx.aol.com>
Source record: 130288

Reg wrote,
>
>> >I don't own a 0.357, what should I do?<
>====================
>
>Get yourself a 9mm !
>
They haven't learned metric yet, Reg.
73,
Tom Donaly, KA6RUH

3550. Re: Three Phase Fractal Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 04:19:44 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asc2kv$2bd$1@venus.btinternet.com>
Source record: 130289

> Living in G-Land you obviously never worked for AT&T or IBM. Their
solution
> is simple, if it won't work on 26 ga twisted pair, put it on fiber.
==========
Years before fiber was invented, for short periods, I worked alongside AT&T engineers in cable manufacturing plant. So I know what you mean. Their design rules were brief and simple. And let's admit it - they worked well enough. ;o)

But I suspect the staff did not obtain the same job satisfaction as I did.

Reg

3551. Re: Crank-Up Winch?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 04:21:14 UTC
From: Jim Pennino <jimp@specsol.com>
Message-ID: <asc2nq$t75$1@mail.specsol.com>
Source record: 130290

jack D <jackinariz@webtv.net> wrote:
> I want to make a crank-up winch setup that will raise & lower my 35'
> mast setup.....Problem is I can't find the winch anywhere.....I have
> looked at sites that i think might have them to no avail.....Most are
> motorized, starting about $350.00.....I just want a crank-up that has a
> spool that will hold about 50' cable...Thanks All. Jack D....KD7RUF

Try looking in the phone book for a real hardware store, a boat or RV
supply store, a farm supply store, or a tool store.

Last time I looked at them in Harbor Freight (a tool store; they may
be on line), they ran from about $20 to about $60 depending on how
heavy duty you wanted.

--
Jim Pennino

3552. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 04:21:38 UTC
From: tdonaly@aol.com
Message-ID: <20021130232138.21083.00008119@mb-fx.aol.com>
Source record: 130291

>
>Rick Littlefield wrote:
>>>What are Kel-Tecs?<
>>
>>
>> Model P-32 compact polymer 7-round locked-breech .32 semi-automatic pistol
>made
>> by Kel-Tec CNC Industries in Florida.
>>
>> Rick K1BQT
>
>And you carry 6 or 7 of them at a time in your socks and drawers? Kewl!
> The Terminator!
>
>-Bill
>

I believe Rick worked in the mental health field for
many years.
73,
Tom Donaly, KA6RUH

3553. Re: Crank-Up Winch?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 04:23:13 UTC
From: Major Tom <NonValidAddress@attbi.com>
Message-ID: <R8gG9.62417$GR5.12588@rwcrnsc51.ops.asp.att.net>
Source record: 130292

Hi Jack,

I'm currently using a hand-crank winch designed for a boat trailer that
I picked up from the local marina. All different kinds of sizes available.
I'm using one on a 40 foot crank-up tubular mast with pretty good results.

Hope this helps
Tom

"jack D" <jackinariz@webtv.net> wrote in message
news:1637-3DE97ED3-702@storefull-2136.public.lawson.webtv.net...
> I want to make a crank-up winch setup that will raise & lower my 35'
> mast setup.....Problem is I can't find the winch anywhere.........I have
> looked at sites that i think might have them to no avail.......Most are
> motorized, starting about $350.00.....I just want a crank-up that has a
> spool that will hold about 50' cable...Thanks All. Jack D....KD7RUF
>

3554. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 04:37:05 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <uuj4emthkgosbc@corp.supernews.com>
Source record: 130293

Art Unwin KB9MZ wrote:
> Bill M <""exray\"@n-o- .caribe.net> wrote in message
news:<uui88kmnarp7c2@corp.supernews.com>...
>
>>Art Unwin KB9MZ wrote:
>>
>>>Bill M <""exray\"@n-o- .caribe.net> wrote in message
news:<uuhmpljome6464@corp.supernews.com>...
>>>
>>>
>>>>Art Unwin KB9MZ wrote:
>>>
>>>snip
>>> This newsgroup
>>>
>>>
>>>>>consists of a wonderfull group of people who enjoy discussing ham
>>>>>radio in a friendly way, lets keep it that way.
>>>>>Art
>>>>
>>
>>
>>>>Where can I find a DIY 14 MHz fractal antenna project on the web? I'd
>>>>like to try one.
>>>>-Bill M
>>>
>>>
>>>Sorry, can't help you there.I know fractal antennas gained a lot of
>>>interest in the past few years but I was not one of them as I was busy
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>>
>>I think maybe one of the reasons the fractal idea and its promoter catch
>>such a razzing is because there is nothing out there that people can try
>>for themselves. Its like saying I've got the best so-snd-so but I'm not
>>going to let you see it.
>>
>>What do you think, Art?
>>
>>-Bill M
>
> Hi Bill. I don't know if we have communicated before but I recognise
> the underlinninmg theme. I did not and have not hidden anything. I
> subjected myself to the withering interogation by Clerk and gave
> figures and facts the best I could even though I considered the method

> to be objectionable and I was not privy to that which Roy was
> supplying him. At one time he even admitted Iwas correct in my claim
> and then went on with the attacks. I also supplied a page
> in a attempt to clarify.Others brought to the attention of the group
> patent
> numbers that describe what I say. The same goes for capacitive
> coupling where the allegation was that I stole it from the real
> inventor and where I had described in detail how it works and why it
> works. I can't see how you can
> suggest that I am making claims that others cannot prove for
> themselves.
> If I misread your post then I apologise for my response
> Regards
> Art

Hi Art,
I didn't mean to put you on the defensive which I obviously did, I was simply looking for an "Idiot's Guide To Build A Fractal Antenna". 300 pages of theorems haven't guided me the basic dimensions nor have a bunch of wild-ass claims and an opportune photo of a Senator with Martini toothpick in hand visiting the Fractal Lab.
I think if there was any substance to any of the claims, pro or con, then some regular schmuck user like me could say "I tried it and it sucks/was the best antenna ever".
I don't see that in this case and I think thats a basic failure on the part of 'inventors' that think snow-balling an interest is more important than actual users on-the-air experience.
At least the EH antenna is publicized. I have found some tin foil and 4" PVC, all I lack is a basement to see if the antenna performs equally outdoors.

-BM

3555. Re: Crank-Up Winch?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 04:54:26 UTC
From: W6DKN <w6dkn-nospam-@qsl.net>
Message-ID: <2vgG9.20998$EY.2305@fe01>
Source record: 130294

"jack D" <jackinariz@webtv.net> wrote in message
news:1637-3DE97ED3-702@storefull-2136.public.lawson.webtv.net...
> I want to make a crank-up winch setup that will raise & lower my 35'
> mast setup.....Problem is I can't find the winch anywhere.....I have
> looked at sites that i think might have them to no avail.....Most are
> motorized, starting about $350.00.....I just want a crank-up that has a
> spool that will hold about 50' cable...Thanks All. Jack D....KD7RUF
>

try http://makeashorterlink.com/?S28D14D92

3556. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 05:04:28 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DE9A69E.454C669D@townsqr.com>
Source record: 130295

Bill M wrote:

> Rick Littlefield wrote:
> >>What are Kel-Tecs?<
> >
> >
> > Model P-32 compact polymer 7-round locked-breech .32 semi-automatic pistol made
> > by Kel-Tec CNC Industries in Florida.
> >
> > Rick K1BQT
>
> And you carry 6 or 7 of them at a time in your socks and drawers? Kewl!
> The Terminator!

A fella carrying all that hardware would have to be very careful not to accidently terminate himself!

Dick

3557. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 05:14:46 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asc5s5$5o6$1@venus.btinternet.com>
Source record: 130296

Art, I havn't been reading that particular thread, wherever it was, very closely. I got lost like a lot of other people.

But I did see the embedded comment in question and wondered a teeny bit what might have caused it. Somebody must have misunderstood something. It happens all the time.

I was a little surprised at being bracketed with Roy. I sort of considered it to be a compliment. He and I have differed on the odd occasion but without getting to the stage when he has demanded an apology. After all said and done, he IS a US citizen and I'm only a poor Limey.

Art, old boy, forget it. Whatever it was?

{ Hi Roy, how's things up there in wet-ribbon-line Washington? Which is what I really remember you for ;o) ;o) }

Best Regards, Reg.

3558. Re: Just what ARE the correct ham radio licensee stats?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 06:10:41 UTC
From: Joe Bob Hawksley <JoeBob@HawksleyImportedRadios.com>
Message-ID: <asc93j$78f$0@pita.alt.net>
Source record: 130297
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

You are not helping by repeatedly cross posting your
ham radio crap to rec.radio.cb And you don't need to
ask anyone anything, just quit your dam cross posting to
rec.radio.cb

"Jim Hampton" <aa2qa@frontiernet.net> wrote in message
news:uub74snoiefn5f@corp.supernews.com...
> I inadvertently responded a short time ago to such a post. I will ask
> everyone responding to check the cross posts to a ton of other newsgroups.
> This might be ok for some of the amateur groups, but I doubt rec.radio.cb
is
> too interested in this.
>
> Thanks & 73 from Rochester, NY
> Jim
>
>

3559. FS: Old Antenna Literature

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 07:27:41 UTC
From: Barry <btuttleman@worldnet.att.net>
Message-ID: <3DE9B9F5.A190614E@worldnet.att.net>
Source record: 130298

for sale:
1)Hy-Gain:
Amateur Radio Antennas, 2 - 160 mtrs, 1976 (2)
Amateur HF antennas, base/mobile, Catalog #200
Amateur HF/VHF, base/mobile, Catalog A (3/1/72)
Amateur HF/VHF, base/mobile, Catalog A (8/71)
Amateur VHF, base/mobile, (11/63)(2)
Hy-Gain Communication Antennas, looks like a very early catalog!
one batch of miscellaneous Hy-Gain lit

2)Cush-Craft
Amateur Antennas, HF/VHF/UHF, Catalog A-7A
Amateur Antennas, FM HF/VHF/UHF, Catalog A-8 (2)(1974 price list)
Amateur Antennas, HF/VHF/UHF, Catalog A15

3)Hustler
1978 CB/Monitor/Amateur/Professional Catalog

4)KLM
1976-77 HF/VHF/UHF Antennas, VHF/UHF transceivers, amps, accessories
1977-78 same as above
Summer 1980 Antennas/Amps/Accessories (2)
Antennas/Accessories (?, 6% CA tax, tho!)

5)Mosley
1963 Amateur Catalog (big)
1964 (?) catalog (small)
1967/8 catalog (small)
1972 (price list) Catalog, large, Amateur antennas
batch of single/dual sheet info sheets, etc

6)Miscellaneous
Lance, New-Tronics, Antenna Specialists, Tristao towers, GAM, Telrex,
Scala, Unadilla/Reyco, etc.

let me know if you have any interest in any of these.
tnx,
barry
carson city, nv
http://home.att.net/~btuttleman2/electron.html

3560. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 08:57:03 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <11jjuuslpih8kev022lh9ok74hd59rs6oe@4ax.com>
Source record: 130299

On Sun, 01 Dec 2002 02:40:38 GMT, Dick Carroll <dixie@townsqr.com>
wrote:

>
> Hey Rich, that started me thinking. Do these Fractennas lend themselves
>well to parasitic operation? For that matter do magnetic loops? Are they that
>different? How about a Fractal Magnetic Loop parasitic element antenna?
>Maybe I should check your website first to see what's there. When I asked
>Fracky a few years ago about some specificics so I could make up one to try
>he got all huffy and insisted the information was all on his website. If it
>was it was *very* well hidden from view.
>
>Dick

Hi Dick,

The url
http://www.qsl.net/kb7qhc/antenna/fractal/Square%20Gasket/index.htm
goes to a page illustrating three variations of a loop of one form.
The first section of the page introduces a single iteration square
gasket and sets-up the baseline. The middle section of the page then
introduces a variation in iteration (which reduces the outer perimeter
of the loop) and notes the change in resonances. The 200 Ohm
resonances of the first iteration are nearly identical to the 50 Ohm
resonances of the second iteration.

Because each design consumes the same amount of wire to build the
pattern, the second iteration has useful resonances in a smaller
bounded area. I should also note that this logic also extends to the
first iteration resonating in a correspondingly smaller bounded area
as the conventional full wave loop antenna.

Now, as this is all first resonance stuff, by and large, and that is
most often with wavelength proportions of less than a halfwave
overall, the nature of radiation imposes a certain bland sameness to
most radiators that reside in this domain - these fractals in no way
break the mold of convention.

73's
Richard Clark, KB7QHC

3561. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 09:28:00 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <63kjuukui4tvj0ecpjljpkk56ai7il11d4@4ax.com>
Source record: 130300

On Sun, 01 Dec 2002 02:40:38 GMT, Dick Carroll <dixie@townsqr.com>
wrote:

> Hey Rich, that started me thinking. Do these Fractennas lend themselves
>well to parasitic operation? For that matter do magnetic loops? Are they that
>different? How about a Fractal Magnetic Loop parasitic element antenna?
>Maybe I should check your website first to see what's there. When I asked
>Fracky a few years ago about some specificics so I could make up one to try
>he got all huffy and insisted the information was all on his website. If it
>was it was *very* well hidden from view.
>
>Dick

Hi Dick,

http://www.qsl.net/kb7qhc/antenna/fractal/Triangle%20Gasket/index.htm
reveals a design that borders on the tedious for the sake of
warshipping a false god. It is a fractal design by spec and
definition, and yet it has no particular quality other than it is
probably one of the more "practical" forms to construct.

I would call this a staged loop matching of a regular structure with
interlaced tuned stubs.

Consistent with my method, I vary one thing, the placement of the
drive point on this web, across three major hierarchal points. The
resonances of the antenna are very affected by such choice. I have no
idea why I ranged the frequency from 5 to 300 MHz - I must've been
bored with the results usually limited to a top frequency of 30MHz.

I've put a lot of miles on the odometer with these suckers, the three
choices for drive points selected was an educated guess at finding the
greatest variation in range for all possible connections; you may, of
course, consider this jaded editorialization and build your own to
mine the possibilities.

Boring does not mean lossy by any means. And a fractal antenna is
NEVER worse than a standard antenna in standard situations (ï¿½1dB).

73's
Richard Clark, KB7QHC

3562. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 10:25:38 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asco2umrv1@slb6.atl.mindspring.net>
Source record: 130301

Dick and Rick:

[snip]
> > And you carry 6 or 7 of them at a time in your socks and drawers? Kewl!
> > The Terminator!
>
> A fella carrying all that hardware would have to be very careful not to
accidently
> terminate himself!
>
> Dick
[snip]

Kel-Tec's are nice... but just because they are light, ya don't have to go
overboard.

Heh, heh, Rick I know you live in the land of "Live Free or Die", where in
the winter
you can "hide" anything under those LL Bean winter parkas ya'll use up there
in the New Hampshire hills, and so "hiding" those Kel-Tec's would not be a
problem for all y'all Yankees.

But you gotta feel sorry for us Rebels here in FL... since even though a
non-felon
can get a "concealed carry" permit here in Brevard County, all anyone can
wear most of the time around here are T-shirt, shorts, and flip-flops,
now...

I ask where can you hide 6 - 7 Kel-Tecs in your surfing wear?

--
Peter K1PO
Indialantic By-the-Sea, FL

3563. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 10:41:00 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <bOhg6rH8ce69EAOj@ifwtech.co.uk>
Source record: 130302

Art Unwin KB9MZ wrote:

>> If the material is only 3 skin depths thick (or 6 if current flows on
>> both sides) then the error in the calculated RF resistance is only 5% -
>> and that's hardly "out the window".

>Now we are getting to the nitty gritty, it is suggested that skin
>depths are an exact science and I question this. If I use a material
>for low frequencies that is as thin or thinner than a stated 'SKIN
>DEPTH' then there must be a change in thinking. If we are to agree (and
>I think we do) then there must be a large change in the so called skin
>depth after all the material started off at the same thicknes!

This is correct.

But you are wrong to say that "skin depth is an inexact science". The science is very exact. The situation when cross-sections become very small is totally understood.

The problem is with language. The only reliably correct language of science is mathematics. Any other spoken or written language is an approximation, and occasionally falls down.

The term "skin depth" is always used to mean an inherent physical property of the material. It is calculated exactly from two other inherent material properties, resistivity and permeability (although it also varies with frequency). Used in this sense, "skin depth" is independent of the actual physical dimensions of the conductor.

If you read Roy's most recent posting, that is exactly how he uses the term; and that is perfectly correct, because that's how the community of engineers and scientists has agreed to use those two words.

Thus you may hear such statements as "This gold plating isn't as thick as the skin depth." This makes perfect sense because "skin depth" is being used in its understood meaning: one of the inherent material properties of gold.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

3564. Wanted info on 144/440 Yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 11:23:19 UTC
From: Troy VK2HXY <**vk2hxy@hotmail.com>
Message-ID: <0hmG9.787$nc2.47334@nnrp1.ozemail.com.au>
Source record: 130303

Hi there people, I am new to the hobby, just recently (3 days) got my license and am now looking to homebrew my own antennas. I suppose that's what makes this hobby so interesting and enjoyable, I love a good challenge.

I am looking for information on how to build both a 70Cm and 2 M beam antenna. Looking for good proven performers, not looking at conducting EME, but would love to be able to make some nice simplex QSO's over a fair distance.

I have heard of Quagi antennas for 70Cm, are these worth building over a normal driven element type beam, or am I best to start with the basics?

Which leads me to the next question, what's better a gamma style match or a folded dipole DE? and lastly, what's considered better, through the boom, or shielded from the boom?

If someone can point me in the right direction, or if anyone has plans please drop me a message at vk2hxy at hotmail dot com.

Warmest regards from an Aussie Amateur

73 de VK2HXY
Troy

3565. "Jaybeam Inverse Balun"???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 11:57:44 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <asctdl$q038e$1@ID-140397.news.dfncis.de>
Source record: 130304

Hi,

I'm looking to organise a club project to build a folded dipole for the UK 70MHz band- that aim is to get some newly qualified Intermediate / Novice Licences onto 70MHz.by converting a bit of PMR kit and building an antenna.

Basically, I'd like to 'copy' a commercial antenna, I have which covers 68 to 88MHz or so.

However, I can't figure out what the balan and impedance matching arrangements are- they are 'potted' in epoxy or similar.

Someone has suggested that it would use an "inverse balun" comprising a 'hair pin' of insulated wire would on a metal former. The loop is connected to the feed points of the folded dipole with the coax (50 ohm) inner to one of the dipole feed points but the braid to the metal former.

I've never come across anything like this before but I am told Jaybeam used to use this method.

Can anyone cast any light on this please- I've found nothing on the web. I always thought that a balun was bi-directional.

73

Brian
G8OSN

--
Brian Reay
www.g8osn.org.uk

3566. Re: Ferrite Core Choke Balun Alternative?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 12:36:56 UTC
From: Larry Gauthier <larryg_at_ismi.net>
Message-ID: <uuk0j7c0la5k2a@corp.supernews.com>
Source record: 130305

Mark,

I am using a compromised version of your description. My 5-bander is fed with three feedlines: 10/12, 15/17, and 20. A single run of RG/8 leaves the shack to a top-of-tower mounted switchbox. I placed 8 ferrite cores on the RG/8 just prior to the switchbox - for a shotgun approach covering every band - and then exit the switchbox with quarter wave RG/6 matching stubs for each band combination. Works great... good SWR curves and at least 1.2:1 resonance on every band.

The quad now tunes better than the previous design - which had 3 untuned RG/8 stubs from the switchbox, each of the 3 stubs with its own set of cores. The SWR curves of that design did not have 1.1:1 resonant points - on some bands the best I could get was 1.6:1 (with resulting SWRs well over beyond 2.0:1 on the band edges).

I finished this new design in October and some of the resonant points are not where I want them... but that fine-tuning will have to wait until next year's warm weather. My re-design goal was for lower than 2.0:1 SWR across all 5 bands from 20 - 10, and I have achieved that with the exception of the top end of 10 meters.

I have an Excel spreadsheet that plots SWR if you are interested...

-larry
K8UT
"Mark Hall" <mark.hall34@verizon.net> wrote in message
news:XZ8G9.15829$%r6.44@nwrddc02.gnilink.net...
> Sorry.. I meant to say I'm using One Coax Feed for each band to a
switchbox
> on the tower. Each feed point needs a Balun. Using EI7BA's design as a
> basis for mine.
>
> mark
> "Wes Stewart" <n7ws@nowhere.com> wrote in message
> news:n8lhuu8c1ikqmgie4gguv2umlser22spv0@4ax.com...
> > On Sat, 30 Nov 2002 12:58:21 GMT, "Mark Hall"
> > <mark.hall34@verizon.net> wrote:
> >
> > |For a 5 Band Quad, I would need probably 50 ferrite cores to make
ferrite
> > |choke baluns. Kinda expensive. The coax 6 turn trick on a 6" form is
> good,
> > |but rather cumbersome on a Quad. I've heard that loosely packing steel
> wool
> > |into a 2" x 12" PVC tube at the coax end works just as well, although

> big.
> > |Any comments on this?
> >
> > You have heard wrong. You can buy a balun kit from Palomar
> >
> > http://www.palomar-engineers.com/Balun_Kits/balun_kits.html
> >
> > for $13.50 (shipped) and be done with it. I've found ferrite sleeves
> > (same as the FB-56 that I believe Palomar uses in their balun kit) at
> > swap meets for $0.25 each. I use 12 of these on a piece of RG-142 for
> > a balun on my 40-80 meter dipole.
> >
> > |How about winding a coil (no idea how many turns)
> > |tightly around the coax jacket and shorting the turns? Maybe tuning
the
> > |turns to the frequency of interest? It would seem that some
> configuration
> > |of "turns around the coax" would be equivalent to "coax turns". Any
> > |thoughts?
> >
> > You might stumble into something that works on one band but you have a
> > 5 band antenna remember.
>
>

3567. Re: 2M antenna for marine band?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 13:13:36 UTC
From: cprstn54zz@att.net
Message-ID: <3dea0871.81503937@news-server.optonline.net>
Source record: 130306

On Sat, 30 Nov 2002 01:55:21 GMT, " Uncle Peter"
<radioconnectionNO@cox.netSPAM> wrote:

>You can build, or buy, a cheap 2-meter antenna tuner. MFJ sells one,
>and I think the early ARRL VHF handbooks might have had plans to
>build one.

Actually, it appears to be beyond the ability of a standard ham 2M
antenna tuner. When properly calibrated (which I didn't do before),
my MFJ-924 is only able to dial in an SWR of 3.0 for the marine band.
The same antenna give SWR=1.2 for 2M without correction and 1.1 with
correction.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

3568. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 14:34:32 UTC
From: k1bqt@aol.com
Message-ID: <20021201093432.07828.00008336@mb-mn.aol.com>
Source record: 130307

>...and you carry 6 or 7 of them at a time in your socks and drawers? Kewl!<

My friends call me Lumpy and my enemies call me long distance.

> A fella carrying all that hardware would have to be very careful not to accidently terminate himself!<

Exactly, not to mention that I feel like my fly is open and I have spinach stuck between my teeth. So, in real life, I don't carry anythng but a pocket knife (just to set the record straight).

>Kel-Tec's are nice... but just because they are light, ya don't have to go overboard.<

I like the P-32 because if you have to get rid of one in a hurry, you can chew it up and swallow it.

>Heh, heh, Rick I know you live in the land of "Live Free or Die"...<

Odd that it's the safest place to live in the US--what with all those guns in the hands of its citizens!

>...where can you hide 6 - 7 Kel-Tecs in your surfing wear?<

People will just think you're glad to see them!

73

Rick K1BQT

3569. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 14:48:06 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <uuk883gc9o8rab@corp.supernews.com>
Source record: 130308

Dear Peter:
Not much of a problem. Look at this page:
http://www.kel-tec.com/prod02.htm
and you will see why a P-32 can disappear in shorts or even on a chain
under a shirt.
This topic is much more interesting!
Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:asco2umrv1@slb6.atl.mindspring.net...
> Dick and Rick:
>

>
> Heh, heh, Rick I know you live in the land of "Live Free or Die",
where in
> the winter
> you can "hide" anything under those LL Bean winter parkas ya'll use up
there
> in the New Hampshire hills, and so "hiding" those Kel-Tec's would not
be a
> problem for all y'all Yankees.
>
> But you gotta feel sorry for us Rebels here in FL... since even though
a
> non-felon
> can get a "concealed carry" permit here in Brevard County, all anyone
can
> wear most of the time around here are T-shirt, shorts, and flip-flops,
> now...
>
> I ask where can you hide 6 - 7 Kel-Tecs in your surfing wear?
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL
>
>

3570. Re: Ferrite Core Choke Balun Alternative?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 14:58:23 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <jspG9.8644$31.119@nwrddc03.gnilink.net>
Source record: 130309

Hi Larry:

Yeah I'm debating the 1/4 WL matching sections. EI7BA started with them, then took them out. W/O the matching sections his SWR went down significantly. It's a crap shoot I guess. Haven't seen much RG-11 75 ohm cable around at Ham Fests. Putting the ferrite cores at the input to the switch box would save a bunch of cores. I have a 4 el spider quad so it will be complicated no matter what I do. He added 30 and 40 meters to boot. The 40 meter being a dipole folded around the spreaders. I'm thinking I might be able to get a 2 element 40M on there somehow. Better crank up the Autek on this one. Does your switchbox ground the unused elements?

'73 mark

"Larry Gauthier" <larryg_at_ismi.net> wrote in message
news:uuk0j7c0la5k2a@corp.supernews.com...
> Mark,
>
> I am using a compromised version of your description. My 5-bander is fed
> with three feedlines: 10/12, 15/17, and 20. A single run of RG/8 leaves
the
> shack to a top-of-tower mounted switchbox. I placed 8 ferrite cores on the
> RG/8 just prior to the switchbox - for a shotgun approach covering every
> band - and then exit the switchbox with quarter wave RG/6 matching stubs
for
> each band combination. Works great... good SWR curves and at least 1.2:1
> resonance on every band.
>
> The quad now tunes better than the previous design - which had 3 untuned
> RG/8 stubs from the switchbox, each of the 3 stubs with its own set of
> cores. The SWR curves of that design did not have 1.1:1 resonant points -
on
> some bands the best I could get was 1.6:1 (with resulting SWRs well over
> beyond 2.0:1 on the band edges).
>
> I finished this new design in October and some of the resonant points are
> not where I want them... but that fine-tuning will have to wait until next
> year's warm weather. My re-design goal was for lower than 2.0:1 SWR across
> all 5 bands from 20 - 10, and I have achieved that with the exception of
the
> top end of 10 meters.
>
> I have an Excel spreadsheet that plots SWR if you are interested...
>
> -larry

> K8UT
> "Mark Hall" <mark.hall34@verizon.net> wrote in message
> news:XZ8G9.15829$%r6.44@nwrddc02.gnilink.net...
> > Sorry.. I meant to say I'm using One Coax Feed for each band to a
> switchbox
> > on the tower. Each feed point needs a Balun. Using EI7BA's design as a
> > basis for mine.
> >
> > mark
> > "Wes Stewart" <n7ws@nowhere.com> wrote in message
> > news:n8lhuu8c1ikqmgie4gguv2umlser22spv0@4ax.com...
> > > On Sat, 30 Nov 2002 12:58:21 GMT, "Mark Hall"
> > > <mark.hall34@verizon.net> wrote:
> > >
> > > |For a 5 Band Quad, I would need probably 50 ferrite cores to make
> ferrite
> > > |choke baluns. Kinda expensive. The coax 6 turn trick on a 6" form
is
> > good,
> > > |but rather cumbersome on a Quad. I've heard that loosely packing
steel
> > wool
> > > |into a 2" x 12" PVC tube at the coax end works just as well, although
> > big.
> > > |Any comments on this?
> > >
> > > You have heard wrong. You can buy a balun kit from Palomar
> > >
> > > http://www.palomar-engineers.com/Balun_Kits/balun_kits.html
> > >
> > > for $13.50 (shipped) and be done with it. I've found ferrite sleeves
> > > (same as the FB-56 that I believe Palomar uses in their balun kit) at
> > > swap meets for $0.25 each. I use 12 of these on a piece of RG-142 for
> > > a balun on my 40-80 meter dipole.
> > >
> > > |How about winding a coil (no idea how many turns)
> > > |tightly around the coax jacket and shorting the turns? Maybe tuning
> the
> > > |turns to the frequency of interest? It would seem that some
> > configuration
> > > |of "turns around the coax" would be equivalent to "coax turns". Any
> > > |thoughts?
> > >
> > > You might stumble into something that works on one band but you have a
> > > 5 band antenna remember.
> >
> >
>
>

3571. Re: Crank-Up Winch?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 15:08:44 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <6a2dnQCKEK4buHegXTWcqg@comcast.com>
Source record: 130310

Jack,

I was able to pick up a winch for my Wilson TT45 tubular tower at a boat shop that is identical to the original. I think it was intended for use with a boat trailer. Price was in the 15-20 range. Same place also has stainless steel hardware.
Tam/WB2TT
"jack D" <jackinariz@webtv.net> wrote in message
news:1637-3DE97ED3-702@storefull-2136.public.lawson.webtv.net...
> I want to make a crank-up winch setup that will raise & lower my 35'
> mast setup.....Problem is I can't find the winch anywhere.....I have
> looked at sites that i think might have them to no avail.....Most are
> motorized, starting about $350.00.....I just want a crank-up that has a
> spool that will hold about 50' cable...Thanks All. Jack D....KD7RUF
>

3572. Re: Three Phase Antenna Feedlines Burst Ballons

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 15:09:28 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <uuk9g26mi9lo62@corp.supernews.com>
Source record: 130311

This is an interesting engineering economics issue. Factors include the cost of wire, the cost of insulators, the cost of converting DC to AC so that transformers may be used at the receiving end, the distance between generation and use, and (to a minor extent) the cost of generation. The comparison usually assumes that the line will be run with the same peak voltage, which is equal to the average voltage when using DC. Thus, at first glance, the use of DC allows more power to be conveyed. Use of an even number of conductors is preferred.
The Russians have used DC transmission lines in a setting similar to the Quebec setting. Some islands are supplied from the mainland by DC.
73 Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

"J. Keith Carter" <j.keith.carter@sympatico.ca> wrote in message news:3DE954E5.7323FBA7@sympatico.ca...
> Sorry to burst your balloon Reg, But many years ago Hydro quebec went from three
> phase transmission to DC on their 750 Kv lines from Churchill falls on James bay
> to southern Quebec.More than 1000 miles. More efficient and less loss. Maybe
> you can model that for your antenna feed lines. Check it out on their history of
> their James Bay Hydro development program. Keith, VE3JKC, ex VE2ANC.
>

3573. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 16:15:36 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asdcj2cuo1@slb9.atl.mindspring.net>
Source record: 130312

Mac:

Thanks.

Yes, I know all about Kel Tec it's located in Cocoa, FL about 10 miles North of my place here in Indialantic, FL.
They have a target range there where prospective customers can try out their products.

The P32 is a very "cryptic" and convenient weapon for personal concealed carry use.

I read last week where the airline pilots in the US will be allowed to carry pistols in the cabin starting next year.
This new program might prove to be a windfall for Kel Tec. With the proper training and understanding of the
safe use of handguns, I believe that arming flight deck personnel in airline cockpits will be another useful element
in the new overall approach to improving the airline industry's security against terrorists and others who don't care
about the safety of innocent airline passengers. Hindsight is always 20:20, and it is too late now, but I believe that
if it had been well known publicly that members of airline flight deck crews may be carrying concealed
firearms the fate of at least some of the doomed Sept. 11 flights might have been different.

Incidently, or co-incidently, both Cocoa, FL the Kel Tec factory site, and Indialantic where I live are located on
the wonderful "Space Coast" a few miles South of Cape Canaveral here in beautiful Brevard County, FL which
issues concealed carry permits to "qualified" citizens who request such a permit.

--
Peter K1PO
Indialantic By-the-Sea, FL

"J. McLaughlin" <JCM@Power-Net.Net> wrote in message
news:uuk883gc9o8rab@corp.supernews.com...
> Dear Peter:
> Not much of a problem. Look at this page:
> http://www.kel-tec.com/prod02.htm
> and you will see why a P-32 can disappear in shorts or even on a chain
> under a shirt.
> This topic is much more interesting!

> Mac N8TT
>
> --
> J. Mc Laughlin - Michigan USA
> Home: JCM@Power-Net.Net

3574. Re: Ferrite Core Choke Balun Alternative?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 16:30:29 UTC
From: Larry Gauthier <larryg_at_ismi.net>
Message-ID: <uuke90dksfbac8@corp.supernews.com>
Source record: 130313

Mark,

Yes, unused elements are grounded (it's a TopTen Devices 6 position switch).

I bought 100 feet of RG/11 from Cable Experts, and used it for 1/4 wave stubs on 40 and 30 meter delta loops, and for the three stubs on the quad.

I also experimented with EI7BA's 40 and 30 meter antennas on the quad, but could not get them to behave properly and removed them.

You will definitely want an antenna analyzer of some sort for this work - I use an MFJ 259B.

-larry
K8UT
"Mark Hall" <mark.hall34@verizon.net> wrote in message
news:jspG9.8644$31.119@nwrddc03.gnilink.net...
> Hi Larry:
>
> Yeah I'm debating the 1/4 WL matching sections. EI7BA started with them,
> then took them out. W/O the matching sections his SWR went down
> significantly. It's a crap shoot I guess. Haven't seen much RG-11 75 ohm
> cable around at Ham Fests. Putting the ferrite cores at the input to the
> switch box would save a bunch of cores. I have a 4 el spider quad so it
> will be complicated no matter what I do. He added 30 and 40 meters to
boot.
> The 40 meter being a dipole folded around the spreaders. I'm thinking I
> might be able to get a 2 element 40M on there somehow. Better crank up
the
> Autek on this one. Does your switchbox ground the unused elements?
>
> '73 mark
>
>
> "Larry Gauthier" <larryg_at_ismi.net> wrote in message
> news:uuk0j7c0la5k2a@corp.supernews.com...
> > Mark,
> >
> > I am using a compromised version of your description. My 5-bander is fed
> > with three feedlines: 10/12, 15/17, and 20. A single run of RG/8 leaves
> the
> > shack to a top-of-tower mounted switchbox. I placed 8 ferrite cores on
the
> > RG/8 just prior to the switchbox - for a shotgun approach covering every
> > band - and then exit the switchbox with quarter wave RG/6 matching stubs
> for

> > each band combination. Works great... good SWR curves and at least 1.2:1
> > resonance on every band.
> >
> > The quad now tunes better than the previous design - which had 3 untuned
> > RG/8 stubs from the switchbox, each of the 3 stubs with its own set of
> > cores. The SWR curves of that design did not have 1.1:1 resonant
points -
> on
> > some bands the best I could get was 1.6:1 (with resulting SWRs well over
> > beyond 2.0:1 on the band edges).
> >
> > I finished this new design in October and some of the resonant points
are
> > not where I want them... but that fine-tuning will have to wait until
next
> > year's warm weather. My re-design goal was for lower than 2.0:1 SWR
across
> > all 5 bands from 20 - 10, and I have achieved that with the exception of
> the
> > top end of 10 meters.
> >
> > I have an Excel spreadsheet that plots SWR if you are interested...
> >
> > -larry
> > K8UT
> > "Mark Hall" <mark.hall34@verizon.net> wrote in message
> > news:XZ8G9.15829$%r6.44@nwrddc02.gnilink.net...
> > > Sorry.. I meant to say I'm using One Coax Feed for each band to a
> > switchbox
> > > on the tower. Each feed point needs a Balun. Using EI7BA's design as
a
> > > basis for mine.
> > >
> > > mark
> > > "Wes Stewart" <n7ws@nowhere.com> wrote in message
> > > news:n8lhuu8c1ikqmgie4gguv2umlser22spv0@4ax.com...
> > > > On Sat, 30 Nov 2002 12:58:21 GMT, "Mark Hall"
> > > > <mark.hall34@verizon.net> wrote:
> > > >
> > > > |For a 5 Band Quad, I would need probably 50 ferrite cores to make
> > ferrite
> > > > |choke baluns. Kinda expensive. The coax 6 turn trick on a 6" form
> is
> > > good,
> > > > |but rather cumbersome on a Quad. I've heard that loosely packing
> steel
> > > wool
> > > > |into a 2" x 12" PVC tube at the coax end works just as well,
although
> > > big.

> > > > |Any comments on this?
> > > >
> > > > You have heard wrong. You can buy a balun kit from Palomar
> > > >
> > > > http://www.palomar-engineers.com/Balun_Kits/balun_kits.html
> > > >
> > > > for $13.50 (shipped) and be done with it. I've found ferrite
sleeves
> > > > (same as the FB-56 that I believe Palomar uses in their balun kit)
at
> > > > swap meets for $0.25 each. I use 12 of these on a piece of RG-142
for
> > > > a balun on my 40-80 meter dipole.
> > > >
> > > > |How about winding a coil (no idea how many turns)
> > > > |tightly around the coax jacket and shorting the turns? Maybe
tuning
> > the
> > > > |turns to the frequency of interest? It would seem that some
> > > configuration
> > > > |of "turns around the coax" would be equivalent to "coax turns".
Any
> > > > |thoughts?
> > > >
> > > > You might stumble into something that works on one band but you have
a
> > > > 5 band antenna remember.
> > >
> > >
> >
> >
>
>

3575. EZNEC - G5RV Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 16:35:27 UTC
From: Andreas Weller <weller@andreas-weller.de>
Message-ID: <asddoeron00$1@news.t-online.com>
Source record: 130314

Hallo!

I'm looking for a G5RV descrpition File (*.ez) for EZNEC 3.0

May be you can help me.

Thanks!

73 de Andreas Weller, DF1PAW

3576. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 16:50:28 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212010850.62958e16@posting.google.com>
Source record: 130315

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
news:<bOhg6rH8ce69EAOj@ifwtech.co.uk>...
> Art Unwin KB9MZ wrote:
>
> >> If the material is only 3 skin depths thick (or 6 if current flows on
> >> both sides) then the error in the calculated RF resistance is only 5% -
> >> and that's hardly "out the window".
>
> >Now we are getting to the nitty gritty, it is suggested that skin
> >depths are an exact science and I question this. If I use a material
> >for low frequencies that is as thin or thinner than a stated 'SKIN
> >DEPTH' then there must be a change in thinking. If we are to agree (and
> >I think we do) then there must be a large change in the so called skin
> >depth after all the material started off at the same thicknes!
>
> This is correct.
>
> But you are wrong to say that "skin depth is an inexact science". The
> science is very exact. The situation when cross-sections become very
> small is totally understood.

I remember a time when taking an engineering exam I was given for some
reason
the electrical engineers paper. I barely made it and all the other
mechanicals failed.This firmly implanted into my mind the superiority
of the electricals in mathematics. This lesson has come home again and
tho I am slow in comprehending
the time spent by the guru's has not been wasted on me, tho it was
probably all understood by others.I thank all for the considerable
time in explaining to me
the intricacies of skin behavior where my understanding has shot up
immensely
(No, not 100%)and as Peter has pointed out all people that gave me
extra licence
to pursue this line of questioning. It is hard to stay in a horrible
mood when people are so generous with their time
Thanks
Art KB9MZ......XG

3577. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 17:27:49 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212010927.72f4efba@posting.google.com>
Source record: 130316

k1bqt@aol.com (Rick Littlefield) wrote in message
news:<20021130115321.06703.00000114@mb-dd.aol.com>...
> Hi Art--
>
> >No that is not whining at all, it is a fact that innovation is discouraged.<
>
snip.
>
> INABILITY: Lacking the means and skills to do things correctly.
>
snip.
>
> --Rick

Ok,OK,OK
For you and you alone I will accept that I portray a good example of
inability. I am guilty of not accepting that any antennas that
I talk about are trash and cannot possibly work. Yes, I am also guilty
of portraying others ideas as my own and thus am guilty of stealing
and worse still, of lying. I am also guilty of trying to defend what
I call the underdog. I also will not add XG to my signature to this
particular post so that pain is not laid on those in the U.K.
I will go out to the porch for a couple of hours as Peter suggested
and hopefully somebody out there will take the time to bring out a cup
of tea and biscuits. During this time I will cogitate on the
indignation
that I have of being guilty of all these things and when I fight back
I am labelled a whiner, which really hurts.
So Rick you have got all what you are asking for, the idea of sharing
things is incorrect as it leads to old wives tales . Ofcourse I have
no idea of my demeanor when I return from the porch tonight as it is
mighty cold here in the Midwest and my sugar levels are now going out
of sight
despight the extra needling Hic, that I am getting.
Art *****.......**

3578. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 17:27:50 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212010927.770920f4@posting.google.com>
Source record: 130317

k1bqt@aol.com (Rick Littlefield) wrote in message
news:<20021130115321.06703.00000114@mb-dd.aol.com>...
> Hi Art--
>
> >No that is not whining at all, it is a fact that innovation is discouraged.<
>
snip.
>
> INABILITY: Lacking the means and skills to do things correctly.
>
snip.
>
> --Rick

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I talk about are trash and cannot possibly work. Yes, I am also guilty
of portraying others ideas as my own and thus am guilty of stealing
and worse still, of lying. I am also guilty of trying to defend what
I call the underdog. I also will not add XG to my signature to this
particular post so that pain is not laid on those in the U.K.
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and hopefully somebody out there will take the time to bring out a cup
of tea and biscuits. During this time I will cogitate on the
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that I have of being guilty of all these things and when I fight back
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things is incorrect as it leads to old wives tales . Ofcourse I have
no idea of my demeanor when I return from the porch tonight as it is
mighty cold here in the Midwest and my sugar levels are now going out
of sight
despight the extra needling Hic, that I am getting.
Art *****.......**

3579. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 17:56:11 UTC
From: k1bqt@aol.com
Message-ID: <20021201125611.27794.00008948@mb-mf.aol.com>
Source record: 130318

>The P32 is a very "cryptic" and convenient weapon for personal concealed carry use.<

Install a miniature Laserlite sight under the recoil-spring guide, slip a couple extra magazines into the little zip-up carry case, and it makes a neat package. Polymer body comes in a variety of colors for the fashion-conscious.

Rick K1BQT

3580. Re: Antenna question?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 18:24:50 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <s5kkuugj55vcn8dbu5a6ohj8en1kd92d94@4ax.com>
Source record: 130219

On Sun, 01 Dec 2002 09:37:09 -0800, nospam <xxxmmxxx@xxxspiritone.com>
wrote:

>Is having being on a hill a couple hundred feet above a valley
>about the same as having my antenna up 60 feet or so?
>The valley is to the South of me.
>
>Or does the antenna have to be higher in the immediate
>vicinity of the antenna to realize height advantage?

Hi OM,

Depends on where your contact is, and what band.

For Line-of-sight contacts a couple of hundred foot hill is like a
couple of hundred foot tall tower. You can ground mount your antenna,
as long as obstructions do not block its "view." The radio horizon
would be roughly 20 miles away, or 40 miles to the furthest, similar
hill with ground mounted antenna (equally clear of obstructions).

If you are working over the horizon (far over), you can think of the
hill as having less earth to soak up your signal before it gets on its
way. Being on a ridge or a peak would probably bring some advantage
in the form of a height multiplier: 1.18 for Pikes Peak on 80M; 1.22
for Machu Piccu below 40M. 1.005 for Mt. Rushmore at 160M; and so on.

73's
Richard Clark, KB7QHC

3581. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 18:30:10 UTC
From: k1bqt@aol.com
Message-ID: <20021201133010.27794.00008957@mb-mf.aol.com>
Source record: 130220

>I will cogitate on the indignation
that I have of being guilty of all these things and when I fight back am
labelled a whiner, which really hurts.<

I wouldn't take it too personally, Art. Just keep what you can use and throw
away the rest...like combing the fleas and thorns out of the wool before making
it into a sweater.

Rick K1BQT

3582. Re: Antenna question?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 18:36:43 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <%EsG9.167012$dn3.8922949@twister.southeast.rr.com>
Source record: 130221

The term is HAAT, Height Above Average Terrain. You are better off on top of the hill than in the valley. This is something we all need to consider when we buy houses!!

73, Bill, W4WNT

"nospam" <xxxmmxxx@xxxspiritone.com> wrote in message news:3DEA48C5.DC4B2AEA@xxxspiritone.com...
> Is having being on a hill a couple hundred feet above a valley
> about the same as having my antenna up 60 feet or so?
> The valley is to the South of me.
>
> Or does the antenna have to be higher in the immediate
> vicinity of the antenna to realize height advantage?
>

3583. EZNEC magnetic loop

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 18:37:04 UTC
From: Uli DF5SF <uli@df5sf-qrp.de>
Message-ID: <qklkuuo9elld0lpurrkpidh421jd5dhrlr@4ax.com>
Source record: 130222

Hello,
I am searching for an EZNEC File Magnetic loop (like MFJ 1m dia.)
Thanks

---
73 de Uli, DF5SF
mailto: uli@df5sf-qrp.de http://www.df5sf-qrp.de

3584. Re: Problems With EDZ Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 18:41:08 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <8JsG9.167046$dn3.8923743@twister.southeast.rr.com>
Source record: 130223

Start by grounding the transceiver and the tuner. This should improve your reception and transmission, the hum may also vanish. I've used a 4 foot copper plated rod and number 6 copper wire, even though the best rf ground is 8 ft of copper rod.

73, Bill, W4WNT

"William M. Bickley" <bickley@dmv.com> wrote in message news:uufgiathv5rm3a@corp.supernews.com...
> I could use some help with this one:
>
> Antenna is a new 88-foot extended double zepp, up about 35 feet. One end is
> in the clear. The other brushes the tops of a couple of pines before exiting
> on the other side of the treeline.
>
> Feeder is 450 ohm window line, about 80 feet long, fed under the eave, thru
> a storage area, thru a wall, and directly to a Nye Viking tuner.
>
> Neither the transceiver, amp or tuner are grounded to each other or anything
> else.
>
> Performance is great (amazing, by my standards) on 80, 40 and 20 meters. At
> higher frequencies, I'm getting a terrible hum (or worse) in the rig
> speaker, the computer and the housewide audio system, to the point where the
> system is unusable, even at near-QRP power. No RF bite on the mike or any
> of the cabinets, though.
>
> Removing the amp and adding a grounding strap from transceiver had no
> effect. Adding a W2DU choke between tuner and transceiver had no effect.
> Next step is to swap in a Johnson Matchbox, as soon as I can get it up to
> snuff.
>
> This is my first entree with balanced feed, and I could use some advice and
> counsel.
>
> TIA.
>
> Bill W2ET

>
>

3585. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 18:42:21 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212011042.28e4ae9c@posting.google.com>
Source record: 130224

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<asc5s5$5o6$1@venus.btinternet.com>...
After all
> said and done, he IS a US citizen and I'm only a poor Limey.

So am I,so am I a U.S. citizen. Even more important is that I am one
by choice and not via an accident of birth ! On top of all that I was
invited whereas the U.S. government gave taxpayers money to help pay
the moving costs
and Industry picking up the rest of the tab in moving my family here
(Illegals get priority and are not subject to arrest of any kind)
With respect to Limey you should know (at least the Jerries did) that
limeys are from Limehouse so Perhaps I should say just that I am a
poor little limey immigrant boy that only just holds his own in this
horrible and hostile business world of America and where his family is
close to starvation and are facing deportation now that America has
realised its original mistake......Food parcels such as sausage or pie
and mash would be excepted but I can only give in return an untorn
military draft card. My Mercedes is now somewhat old, the acre on
which my house is built is drawing an horrible amount of taxes and my
children have yet to return all the money I spent on their college
education deciding instead to living close to the beach in California.
Oh I am so sorry, I shouldn't be whining to you

Art from the east end of the docklands of London.

what I really remember you for ;o) ;o) }
> ---
> Best Regards, Reg.

3586. Radios For Trade

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 19:14:19 UTC
From: Oris <orisnospam@dirtball.com>
Message-ID: <3DE90DE0.8010604@dirtball.com>
Source record: 130225

Hello All
I have a FT 920 with AM filter and MD 100 mike with the MFJ Versa Tuner V that I will Trade for a Yaesu FT 990. I also have the technical supplment for the FT 920. Anyone interested I am in the Atlanta area. I will meet with in a 70 mile radius of Athens GA. My email is oris@dirtball.com. I am in the Atlanta area. I will meet with in a 70 mile radius of Athens GA.
I Also Have a FT 1000MP that needs work. The frequency display blinks. I was told that there is a problem in the Phase Lock Loop curcuit. Milton Lord at http://www.n4da.com I will trade for a FT 990 Or simlar HF rig. I also have a working Icom AT 500 antenna tuner that I will trade for a Kenwood TS 50 or any small 100 watt continuos coverage HF rig. I need a moble rig. I also Have a Henry radio 2KD-5 Amplifier (pair of Emac 3-500, New Power supply Capacitors, 100 in gets you 1250 out) that I will trade for a FT 990 or FT 1000.
I also Have a Pentium III 500 Mhz computer 40 X cd rom Turtle beach CD burner 128 K of ram sound card Network card 1 gig hard drive keyboard and mouse that I will trade for a HF rig.
Anyone intereAnyone interested I am in the Atlanta area. I will meet with in a 70 mile radius of Athens GA. My email is oris@dirtball.com. I am in the Atlanta area. I will meet with in a 70 mile radius of Athens GA.
Thanks for Reading and Happy Holidays
Oris
N4CND

3587. Stealth or Balcony antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 19:24:26 UTC
From: Beans <beans@gate.net>
Message-ID: <3DEA61EA.89EACBB5@gate.net>
Source record: 130226

I made an antenna yesterday morning that would seem to be a good one for anyone needing a stealthy antenna or one for an apartment balcony. What I did was take a ninefoot piece of 1 inch pvc pipe. I have two 20' lengths of copper wire wound around it, center fed with a balun. One length of wire goes up from the balun, the other down. they are attached to the pvc with lock-ties. The whole thing is mounted vertically, just standing up.I have it mounted 1 inch (yes-inch) off the ground. No wire touches the ground. It loads up with an antenna tuner.

Granted, it's not the best antenna ever, but it is very stealthy, and is very compact. I guess it is similar to a Force-12 Sigma. It would be easy to put this on a balcony. I have it in a coutyard. From Florida I have worked California, South America, and Europe this weekend, so it does get out. 20, 15 and 17 all worked well.

This was extremely easy to assemble..took about 5 minutes, but I had the pvc.

Jeff

3588. telephone spike absorber

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 19:42:53 UTC
From: inagaddadavida@webtv.net
Message-ID: <29079-3DEA663D-281@storefull-2177.public.lawson.webtv.net>
Source record: 130227

i have the small blue block that is used to keep lightning out of a residential phone instillation. is this ok for an antenna lightning arrester? has anyone tried this?

3589. Re: telephone spike absorber

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 20:23:11 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <LcuG9.299$2S1.100506@news20.bellglobal.com>
Source record: 130228

"Jim"
> i have the small blue block that is used to keep
> lightning out of a residential phone instillation.
> is this ok for an antenna lightning arrester?

I wouldn't think so.

3590. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 20:55:59 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <k7tkuu4a3qk1iq64mk442vq2jd97dhurh0@4ax.com>
Source record: 130229

On 01 Dec 2002 03:22:41 GMT, k1bqt@aol.com (Rick Littlefield) wrote:

|>What are Kel-Tecs?<
|
|Model P-32 compact polymer 7-round locked-breech .32 semi-automatic pistol made
|by Kel-Tec CNC Industries in Florida.

Jeeze. Shoot somebody with a .32 and you're just going to make them grumpy. Better stick to shooting coral snakes.

Which reminds me. I'm way out in the desert and one day when I came home from work I found a rattlesnake coiled up on the doorstep. Since my wife often greated me at the door, I started shouting at her to not open it until I could find my square shovel (my weapon of choice) and dispatch the snake.

She opened the door anyway and burst out laughing at my distress. It seems that she found the snake near the door earlier in the day and dispatched it with one shot from the pellet rifle (right between the eyes) and then put it on the door mat for me to find.

Wes

3591. Opinions on TH7-DXX vs. Cushcraft X7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 21:00:57 UTC
From: Hobbes <hobbestg@voicenet.com>
Message-ID: <3DEA7746.5B8@voicenet.com>
Source record: 130230

Dear Group,

I will be putting up a beam at my new QTH shortly. Before I moved, for a number of years I used a TH6-DXX at 55 ft. and was satisfied with its performance. I am trying to decide if I should go with a new TH7-DXX, which would be very similar to my old beam, or one of the Cushcraft X7 beams, which I know very little about. Either antenna will again be installed at 55 ft. Any opinions on which one you would go with?
Thanks and 73

Ed K2ZE

3592. G5RV antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 21:58:56 UTC
From: Kevin <kberlen@ticz.com>
Message-ID: <ase0n001nn6@enews2.newsguy.com>
Source record: 130231

Can someone refer me to a web site for plans on constructing one of these antennas? TIA es 73,

Kevin, K9HX

3593. Re: telephone spike absorber

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 22:34:25 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <R7wG9.29829$oa.1361373@news1.east.cox.net>
Source record: 130232

Depends on the antenna, the lead in, available ground, and
what you are trying to protect, and most importantly... what
the protection device consists of.

Pete

"Jim" <inagaddadavida@webtv.net> wrote in message
news:29079-3DEA663D-281@storefull-2177.public.lawson.webtv.net...
> i have the small blue block that is used to keep lightning out of a
> residential phone instillation. is this ok for an antenna lightning
> arrester? has anyone tried this?
>

3594. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 22:49:15 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DEAA02F.124B0C54@townsqr.com>
Source record: 130233

Richard Clark wrote:

>
> http://www.qsl.net/kb7qhc/antenna/fractal/Triangle%20Gasket/index.htm
> reveals a design that borders on the tedious

Thankyew Sir, that'll give me something to chew on,

Dick

3595. Mobile high SWR multi antenna problem.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 23:15:53 UTC
From: JEEPMON <JEEPMON@HOTMAIL.COM>
Message-ID: <JKwG9.73899$GR5.14762@rwcrnsc51.ops.asp.att.net>
Source record: 130234

I have 2 TALL vertical stick antennas mounted on the roof of my vehicle. They are body mount types with excellent grounding of both the antenna and the rigs. One antenna is for 10M the other is for 2M. The mounts are about 2 feet apart. These antennas are @7-8 feet tall. The problem is that when both antennas are up the swr's are very high on both. When I remove either one of the antennas the swr's a relatively flat for the rig and antenna that are still up. I think the antennas are reacting with each other but why and how? But most importantly how can I get the swr's down and have both antenna in place at the same time. I do not want to spend a lot of money buying many different antennas to see how they react with each other. Since the holes are already drilled in the roof of my vehicle re mounting the farther apart is not an option. CAN I HAVE MORE THAN 1 ANTENNA MOUNTED TO THE ROOF OF MY VEHICLE AND HAVE ACCEPTABLE SWR'S?

Please help me
KC9BNY

3596. Re: G5RV antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 23:27:38 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <uul6mf4mtduu84@corp.supernews.com>
Source record: 130235

Kevin wrote:
> Can someone refer me to a web site for plans on constructing one of these
> antennas? TIA es 73,
>
> Kevin, K9HX
>
>
http://www.qsl.net/aa3px/g5rv.htm

3597. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 23:34:51 UTC
From: John Edwards <johnedw@powerup.com.au>
Message-ID: <7XwG9.75$XS4.3092@nnrp1.ozemail.com.au>
Source record: 130236

This sounds a bit like cutting off your noide to spite your phase!

John E.
(no relation to Reg!)

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:asb030$63q$1@sparta.btinternet.com...
> For more than 100 years advantage has been taken of the fact that 3-phase
> transmission lines, for the same weight of copper and support, have a
> significantly lower energy loss than 2-wire lines. Those seeking the
> ultimate in DX performance at any price should consider what changes will
be
> needed around their antenna farms.
>
> Home-brewing a 3-phase choke-balun is an obvious and easy task. But a 4:1
> transformer requires much thought.
>
> A centre-fed horizontal dipole would have to be replaced by a centre-fed
> horizontal tripole. Vertical and loop antennas would need corresponding
> modifications.
>
> There will be a race between Japanese and US manufacturers to design and
> produce the first 3-phase 100-watt, all-HF band transceiver. But no doubt
> there are a few dark-horses coming up fast. Could be a radio amateur will
> be first at the winning post.
>
> Much depends on development of an entirely new range of antenna tuners.
Just
> an empty black box? The SWR meter's death knoll is already sounding. The
age
> of the TLI is here.
>
> Revolutionary new computer programs will be needed to predict wierd and
> wonderful radiation patterns. Has the isotrope been attainable all along?
> ---
> Reg, G4FGQ
>
>

3598. Re: Stealth or Balcony antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 23:56:23 UTC
From: KB9TMP <kb9tmp@juno.com>
Message-ID: <uul8cd15cjlj2a@corp.supernews.com>
Source record: 130237

"Beans" <beans@gate.net> wrote in message news:3DEA61EA.89EACBB5@gate.net...
> I made an antenna yesterday morning that would seem to be a good one for
> anyone needing a stealthy antenna or one for an apartment balcony. What
> I did was take a ninefoot piece of 1 inch pvc pipe. I have two 20'
> lengths of copper wire wound around it, center fed with a balun. One
> length of wire goes up from the balun, the other down. they are attached
> to the pvc with lock-ties. The whole thing is mounted vertically, just
> standing up.I have it mounted 1 inch (yes-inch) off the ground. No wire
> touches the ground. It loads up with an antenna tuner.
>
> Granted, it's not the best antenna ever, but it is very stealthy, and is
> very compact. I guess it is similar to a Force-12 Sigma. It would be
> easy to put this on a balcony. I have it in a coutyard. From Florida I
> have worked California, South America, and Europe this weekend, so it
> does get out. 20, 15 and 17 all worked well.
>
> This was extremely easy to assemble..took about 5 minutes, but I had the
> pvc.
>
> Jeff

Hmmmm this sounds like something good for Field Day also!

--
'73' From KB9TMP
"The secret of life is honesty and fair dealing,
if you can fake that, you've got it made."
-Groucho Marx

3599. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-01 23:59:44 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <pj5luuoo2vp5d4mcevi975i2b2q3qhkvqp@4ax.com>
Source record: 130238

On 29 Nov 2002 00:13:21 GMT, fractenna@aol.com (Fractenna) wrote:

>>On 26 Nov 2002 20:21:20 GMT, fractenna@aol.com (Fractenna) wrote:
>>
>>> 'fractals do no better than other small/broadband/frequency
>>>independent/antennas'.
>>>
>>>The answer is 'yes'.
>>>
>>imagine that.
>>
>>I suppose this hinges on the genetically optimized definition of yes.
>>
>>>
>>>...a few more weeks anyway.
>>
>>No crystal ball needed there, bubba.
>>
>>73's
>>Richard Clark, KB7QHC
>>
>
>There are two issues which seem pertinent to you Mr. Clark. One regards
>scientific fact, the other the statute of limitations.
>
>Nuff said.

Hi Nuff,

Here we are in December (not August, September, October, nor November)
and how many self-imposed deadlines not met? No science can explain
that except Psychology (not really a science is it - or were you
thinking Astrology?).

The Statue of Imitations is perfectly obvious as most would call these
variations of a single design a one-note opera.

Nuff appears to be short on results and apparently in need of a new
bulb for a flaky crystal ball. Luckily there is always some
troglodyte in the background willing to give it a rap to see if that
can stir up the snow.

As for the admission
>>> 'fractals do no better than other small/broadband/frequency
>>>independent/antennas'.
>>>

>>>The answer is 'yes'.
That only took, what, seven years to confirm from similar observations of many correspondents here over that same period? Sense is beginning to prevail in that regard to only be replaced by a new wife's tale of optimization which already has taken more time to NOT accomplish less (current score of zero) than Steve's six examples done of an afternoon's doodling. More than two years "should" allow enough time, don't you think?

I would offer that frango keep its day job; but I keep mixing up cognitive process with simple candidate hi-grading. Now that fractals have been wholeheartedly abandoned, there is scant artifice available to provide a mantle of respectability.

73's
Richard Clark, KB7QHC

3600. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 00:48:38 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <G5yG9.39119$hK4.3474582@bgtnsc05-news.ops.worldnet.att.net>
Source record: 130239

"Rick Littlefield" <k1bqt@aol.com> wrote in message
news:20021201125611.27794.00008948@mb-mf.aol.com...
> >The P32 is a very "cryptic" and convenient weapon for personal concealed
> carry use.<
>
> Install a miniature Laserlite sight under the recoil-spring guide, slip a
> couple extra magazines into the little zip-up carry case, and it makes a
neat
> package. Polymer body comes in a variety of colors for the
fashion-conscious.
>
> Rick K1BQT

Hi Rick,

Please stop talking like this, you're going to scare people.

Steve

3601. Re: G5RV antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 00:51:00 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEAAE74.4080207@ieee.org>
Source record: 130240

Kevin wrote:
> Can someone refer me to a web site for plans on constructing one of these
> antennas? TIA es 73,

102 ft. dipole center-fed with 30 ft. of 300 ohm twinlead. Use a 1:1
choke at the coax to twinlead junction.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3602. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 01:19:05 UTC
From: k1bqt@aol.com
Message-ID: <20021201201905.02879.00000197@mb-cq.aol.com>
Source record: 130241

>Please stop talking like this, you're going to scare people.<

Oh Oh Peter, we're busted. Back on topic.

Rick K1BQT

3603. Re: Mobile high SWR multi antenna problem.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 01:31:06 UTC
From: Dick <rhughes33@cableone.net>
Message-ID: <fmdluu0iggofrsc4dffndbs4qrup0sd1it@4ax.com>
Source record: 130242

As I recall, the rule of thumb for spacing antennas is 1/2-wave at the
higher frequency. That would mean a minimum spacing between them of
38". It would help if you could describe the antennas in more detail.
Are they commercial types? Do they feed below the roof?

Dick - W6CCD

On Sun, 01 Dec 2002 23:15:53 GMT, "JEEPMON" <JEEPMON@HOTMAIL.COM>
wrote:

>I have 2 TALL vertical stick antennas mounted on the roof of my vehicle.
>They are body mount types with excellent grounding of both the antenna and
>the rigs. One antenna is for 10M the other is for 2M. The mounts are about 2
>feet apart. These antennas are @7-8 feet tall. The problem is that when both
>antennas are up the swr's are very high on both. When I remove either one of
>the antennas the swr's a relatively flat for the rig and antenna that are
>still up. I think the antennas are reacting with each other but why and how?
>But most importantly how can I get the swr's down and have both antenna in
>place at the same time. I do not want to spend a lot of money buying many
>different antennas to see how they react with each other. Since the holes
>are already drilled in the roof of my vehicle re mounting the farther apart
>is not an option. CAN I HAVE MORE THAN 1 ANTENNA MOUNTED TO THE ROOF OF MY
>VEHICLE AND HAVE ACCEPTABLE SWR'S?
>
>Please help me
>KC9BNY
>

3604. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 01:32:55 UTC
From: Jimnn7k@reno.rmci.net
Message-ID: <XDyG9.21534$EY.1407@fe01>
Source record: 130243

Balderdash-- in rural locations, moving your antenna as little as 1/4
wavelength will take a signal from MINIMUM to MAXIMUM ! why? because of
different wave fronts caused by propagation cause the various recieved
signals to ADD, or CANCEL the recieved signal. in fact, if you are going
down a road , listening to your radio , at night, you can MEASUER THE
WAVELENGTH (reciprical of the frequency) between the NULLS in the signals
(1/2 wavelength points)!! go for the most antenna you can get, but doel
(or more feeds itno the pattern would help the most! jim nn7k

--
"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0211301313.50a64972@posting.google.com...
> "Rick Karlquist" <richard@karlquist.remove.this.com> wrote in message
news:<LlwF9.168864$1O2.11668@sccrnsc04>...
> > "Thomas C. Sefranek" <WA1RHP@ARRL.net> wrote in message
> > news:IKmF9.4730$yy.639624@newsread1.prod.itd.earthlink.net...
> > > > Does anyone have suggestions on a type of radio and antenna to
improve
> > > > my reception.
> > >
> > > Wire:
> > > As High as you can,
> > > As Long as you can,
> > > Ground, equally as long.
> > > >
> >
> > Nonsense: that advice would be relevant for a TRANSMITTING
> > antenna. For receiving, a ferrite rod or tuned loop is far better
> > than a random wire. No matter how high or long it is. Unless
> > it is a Beverage antenna, in which case it should be a long
> > as you can, but as LOW as you can (even laying on the ground).
> > In no case AFAIK is ground particularly critical for receiving.
> > Been there, done that.
> >
> > Rick N6RK
>
> I would have to agree. I have both methods of receiving MW. IE: large
> wire antennas, and a tuned loop. I'd have to go with the loop any day.
> On MW, using an overly large wire antenna is fine, except that you
> pretty much have overkill as far as signal input, and the signals come
> a blasting from every direction.
> Not really desirable as far as picking out certain stations where
> there is likely to be interference. My round 16 loop is much better at
> weeding these stations out of the muck. Much better for nulling out

> local noise also. And the loop without a preamp still gives plenty of
> signal. Another plus to the loop is reduced sideband splatter from
> adjacent stations, as the loop is quite hi-Q. The audio is generally
> cleaner. Also less prone to picking up static crashes. A beverage is
> nice, but I don't have that kind of room. I tried my loop out in my
> truck on an old delco AM-FM I use. Worked very well, and very hi-Q.
> You had to retune just moving a small amount. But was a very hot setup
> for MW if you can live without a digi display. Here in the house, I
> usually use my 706mk2g on MW. MK
>
> http://web.wt.net/~nm5k/

3605. Re: G5RV antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 01:39:59 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asedle$79a$1@helle.btinternet.com>
Source record: 130244

Hi Kevin,

The G5RV is so simple a plan is not needed. But should you obtain plans there are several versions.

The only common factors are the electrical length in wavelengths of the 'top' and the electrical length of the feedline. Zo and velocity factor of the feedline, although quite critical, are very vague. It was originally designed in the days when the vogue was to couple the PA tuned tank to an open-wire feedline via a link winding over the tank. But read on:

Just erect a dipole which is 1.5 wavelengths long, end-to-end, at 14.15 MHz. The physical length is approx 102 feet.

Centre-feed it with a 450-ohm ladder line which is 1/2-wave length long at 14.15 MHz. The physical length of 450-ohm feedline will be approx 31 feet depending on the line's velocity factor.

That's a G5RV.

Some people connect a length of 75-ohm or 50-ohm coax between the transmitter and balanced feedline. Whatever you do, unless you operate only on the 20m band you will need a tuner. And you may even need one on THAT.

The G5RV is modelled as a special case of program DIPOLE3. But as you will see the G5RV plus coax, on bands other than 20m, performs worse than a random length antenna with a random length feedline of random impedance without any coax. It doesn't need a computer program to deduce that fact. The coax got there when the link coupling disappeared and the disadvantage of an exact half-wavelength of open wire feeder became important in modern residential accommodation. I don't think G5RV was ever short of real estate in which to erect antennas.

With all HF multi-band dipoles of this type a tuner is needed. Fit a 1:1 choke balun between the 450-ohm line and the tuner. An open wire, 600-ohm line has even lower loss especially if you can bring it right to the shack as G5RV intended.

Incidentally G5RV didn't use an SWR meter to tune up.

To predict what to expect and see the effects of modifications, download program DIPOLE3 in a few seconds from website below and run immediately.

It will estimate efficiency of any dipole, at any height, with any combination of any two feedlines in tandem, of any impedance and of any length. It also calculates the L and C values of an L-network tuner which will always work.

Balun ratio is allowed for if used. All answers available in a second or
two. No training course necessary. Can be used by numerically-minded CB-ers
and professionals. ;o)

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

"Kevin" wrote -.
> Can someone refer me to a web site for plans on constructing one of these
> antennas? TIA es 73,
>

3606. Wire antennas for HF (new and clueless about antennas!)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 01:53:34 UTC
From: "Jackie L." <buzzygirl@REMOVE.attbi.com>
Message-ID: <y2zG9.202677$QZ.29900@sccrnsc02>
Source record: 130245

Hello,

I'm new to the hobby (was licensed 10/02) and am in the process of learning CW so I can get a General upgrade within the next 6-8 weeks. I have not bought an HF rig yet, but I'm thinking about the IC 718, which looks to be nice and easy for a beginner to use, I don't need lotsa bells 'n whistles myself. I'll buy a separate VHF/UHF rig for local work, and already know what antenna I'm getting for that rig.

The issue I'm having is this... I've done a thorough search of the environs around my house, and have come to the conclusion that the only type of antenna I will be able to use will be a longwire type for HF. Why?

Well... my place abuts a park to the south, I mean just 10 feet off my deck, there's park property- ergo, lots of trees. There is no room on my roof for a beam or vertical either as a result of overhanging trees (I don't own the house, the owner won't let me put up an antenna there anyway). A dipole coming off a tree won't work, because I've got kids that play in the yard, and they will for sure run into it where it'll be coming into the house-high-traffic play area. The only other spot I could put up a vertical would be too close to powerlines. I have no attic to speak of other than a puny crawlspace (I live in a rambler). So.

Here's my question- if I were to buy a long-wire type antenna and snake it along the roofline or gutters, and bought an automatic antenna tuner, could I possibly get enough signal push and pull to make it worthwhile? I don't know much about antennas, and the stuff in the ARRL antenna book I borrowed from a friend is going right over my head now (no pun intended- I do intend to learn more about this subject, but right now, that book's too advanced for me).

I have no CC&R's or other restrictions to deal with, other than living in a heavily treed-and-powerlined area. Also, any suggestions on good websites on antennas for absolute newbies to build would be most welcomed.

If I have to buy some smallish antenna for indoors, I'll do so, but I think I could make a longwire work in my situation. Unless there is some miraculous, low-profile HF wonder-antenna that I'm not aware of, that I could strap onto a gutter bracket or onto the house, just outside the window, that would pull in signals from far away? I am looking at an eave that is sitting about 6 feet from my head out the window; it would be so easy to attach something along the edge of the roofline, or even drape it off the gutters or whatever, as the connection would come right into the area where I will have my shack, with no danger of anyone running into it from outside or touching it without a ladder (the house is built on a slight incline as well). But being an utter novice in antenna theory, I don't know

if that would work, or if the gutters would interfere, or what.

Thanks in advance for your suggestions. I'm sure you get questions like this all the time, but I'm really new and I know many hams like to help out the newbies.

Jackie KC0ODY
In the Beautiful "North Metro Area"
Mpls./St. Paul, Minnesota

3607. Re: telephone spike absorber

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 01:58:53 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aseeotbrs1@venus.btinternet.com>
Source record: 130246

There are probably two carbon blocks separated by a thin layer of glue or paint.

The paint breaks down at crudely 500 volts which provides protection for internal phone equipment against voltages above 500. Very good for protecting phones from lightning strikes near phone lines. Been used for 100 years ?

But 500 volts is too high for radio receivers.

--
==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========
"Jim" <inagaddadavida@webtv.net> wrote in message
news:29079-3DEA663D-281@storefull-2177.public.lawson.webtv.net...
> i have the small blue block that is used to keep lightning out of a
> residential phone instillation. is this ok for an antenna lightning
> arrester? has anyone tried this?
>

3608. Re: Opinions on TH7-DXX vs. Cushcraft X7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 02:05:59 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <uulfv0na020407@corp.supernews.com>
Source record: 130247

Dear Ed:
A few observations:
1. 70 feet high will significantly improve 20 meter performance.
2. Consider a log periodic array. The T10 described here works very
well on all bands 20+
http://www.tennadyne.com/default.htm
LP do not use traps.
3. The X7 only covers three bands. There is a lot of action on the
other bands. Cushcraft service has been seen as lacking
4. The TH7 only covers three bands. It seems to be favored over the
X7. The new MFJ Hy-Gain service remains to be seen.
5. All of the above antennas have a purchase cost that is about the
same.

73 Mac N8TT
P.S. If you do go for a T10, ask me for hints on its assembly.
--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net
Office: JCM@McLMcL.Com
"Hobbes" <hobbestg@voicenet.com> wrote in message
news:3DEA7746.5B8@voicenet.com...
> Dear Group,
>
> I will be putting up a beam at my new QTH shortly. Before I moved, for
a
> number of years I used a TH6-DXX at 55 ft. and was satisfied with its
> performance. I am trying to decide if I should go with a new TH7-DXX,
> which would be very similar to my old beam, or one of the Cushcraft X7
> beams, which I know very little about. Either antenna will again be
> installed at 55 ft. Any opinions on which one you would go with?
> Thanks and 73
>
> Ed K2ZE

3609. Re: telephone spike absorber

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 02:06:29 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <FezG9.30715$oa.1415700@news1.east.cox.net>
Source record: 130248

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:aseeotbrs1@venus.btinternet.com...
> There are probably two carbon blocks separated by a thin layer of glue or
> paint.
>
> The paint breaks down at crudely 500 volts which provides protection for
> internal phone equipment against voltages above 500. Very good for
> protecting phones from lightning strikes near phone lines. Been used for
100
> years ?
>
> But 500 volts is too high for radio receivers.
>
>
>
Hello Reg

Some of the newer protectors are three-terminal gas arrestors. It might
do for a long wire on a tube receiver, but they will probably fire on
moderate TX power.

Pete

3610. Re: Wire antennas for HF (new and clueless about antennas!)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 02:21:57 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <9tzG9.24865$%r6.17858@nwrddc02.gnilink.net>
Source record: 130249

Hmmm.. those trees sound real interesting.. the long wire will work, but you'll need a real good earth ground close to your tuner. You can use small wire for low power (like 20 Gauge which is hard to see from 20'), and just snake it through the trees using whatever branches it lands on. #20 should survive as long as not too much tension is used, and it doesn't get wrapped around branches. I use a sling shot to launch a small fishing weight tied to a spool of fishing line. Hold the spool with a cut off coat hanger planted into the ground. Let the fishing line pay off the end of the spool. Pull the wire up over the branches, and shoot another for the next branch. At the end of the wire, hang a weight so it will give with the wind. You'll get better results if you can get something like a G5RV multiband wire antenna up. Earth ground won't be critical, and there's a good chance you won't need a tuner on at least some bands. Maybe install it as an inverted V, sloped on the side. use a tree to pull up the center, then plant the two ends out far/high enough so the kids won't run into it. G5RV's available in Kit form on E-Bay for like $30, depending on the length and lowest band covered. I wouldn't mess with verticals (too much effort with earth ground/radials). Good news is you have trees which make great sky hooks! Good luck!

mark KI4Z
"Jackie L." <buzzygirl@REMOVE.attbi.com> wrote in message
news:y2zG9.202677$QZ.29900@sccrnsc02...
> Hello,
>
> I'm new to the hobby (was licensed 10/02) and am in the process of
learning
> CW so I can get a General upgrade within the next 6-8 weeks. I have not
> bought an HF rig yet, but I'm thinking about the IC 718, which looks to be
> nice and easy for a beginner to use, I don't need lotsa bells 'n whistles
> myself. I'll buy a separate VHF/UHF rig for local work, and already know
> what antenna I'm getting for that rig.
>
> The issue I'm having is this... I've done a thorough search of the
environs
> around my house, and have come to the conclusion that the only type of
> antenna I will be able to use will be a longwire type for HF. Why?
>
> Well... my place abuts a park to the south, I mean just 10 feet off my
deck,
> there's park property- ergo, lots of trees. There is no room on my roof
for
> a beam or vertical either as a result of overhanging trees (I don't own
the

> house, the owner won't let me put up an antenna there anyway). A dipole
> coming off a tree won't work, because I've got kids that play in the yard,
> and they will for sure run into it where it'll be coming into the house-
> high-traffic play area. The only other spot I could put up a vertical
would
> be too close to powerlines. I have no attic to speak of other than a puny
> crawlspace (I live in a rambler). So.
>
> Here's my question- if I were to buy a long-wire type antenna and snake it
> along the roofline or gutters, and bought an automatic antenna tuner,
could
> I possibly get enough signal push and pull to make it worthwhile? I don't
> know much about antennas, and the stuff in the ARRL antenna book I
borrowed
> from a friend is going right over my head now (no pun intended- I do
intend
> to learn more about this subject, but right now, that book's too advanced
> for me).
>
> I have no CC&R's or other restrictions to deal with, other than living in
a
> heavily treed-and-powerlined area. Also, any suggestions on good websites
on
> antennas for absolute newbies to build would be most welcomed.
>
> If I have to buy some smallish antenna for indoors, I'll do so, but I
think
> I could make a longwire work in my situation. Unless there is some
> miraculous, low-profile HF wonder-antenna that I'm not aware of, that I
> could strap onto a gutter bracket or onto the house, just outside the
> window, that would pull in signals from far away? I am looking at an eave
> that is sitting about 6 feet from my head out the window; it would be so
> easy to attach something along the edge of the roofline, or even drape it
> off the gutters or whatever, as the connection would come right into the
> area where I will have my shack, with no danger of anyone running into it
> from outside or touching it without a ladder (the house is built on a
slight
> incline as well). But being an utter novice in antenna theory, I don't
know
> if that would work, or if the gutters would interfere, or what.
>
> Thanks in advance for your suggestions. I'm sure you get questions like
this
> all the time, but I'm really new and I know many hams like to help out the
> newbies.
>
> Jackie KC0ODY
> In the Beautiful "North Metro Area"
> Mpls./St. Paul, Minnesota
>

>

3611. Re: Wire antennas for HF (new and clueless about antennas!)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 02:31:05 UTC
From: "Jackie L." <buzzygirl@REMOVE.attbi.com>
Message-ID: <JBzG9.205051$1O2.12940@sccrnsc04>
Source record: 130251

"Mark Hall" <mark.hall34@verizon.net> wrote in message
news:9tzG9.24865$%r6.17858@nwrddc02.gnilink.net...
> Hmmm.. those trees sound real interesting..

Well, I didn't really understand what you were describing with the fishing line and slingshots (I am *really, seriously* clueless about this whole process) but the problem here is that the trees that I *could* use for any sort of tree-strung wire antenna- i.e., those closest to my shack- are too close to power lines. I would not attempt to climb or slingshot anything into them for that reason. Most of the trees just outside where my ham shack will be snake their tops through power lines, unfortunately... I should've posted that to begin with.

Jackie

Jackie

3612. Re: telephone spike absorber

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 02:33:51 UTC
From: Jimnn7k@reno.rmci.net
Message-ID: <6xzG9.21552$EY.20809@fe01>
Source record: 130252

Not necessarily, as some of the newer "gas" protectors fire around 2-300 volts, and are self clearing- in fact, these appear to be what are being inserted into their screw in protectors (same diameter, length, ect) , used by Alpha-Delta , in their antenna protectors, and rated to 100 watts, and to 1- kw (keep in mind, at 50 ohm, lots of amps, but not much voltage, depending on the gas insert being used in these! but, wouldnt try this with the old carbon protectors (not paint protected, by the way, in fact repaired by the phone co, by scraping off the "dark" carbon, to the color of the rest of the block), and the older carbon protectors actually had a "gap" between the carbon block, and the ceramic piece that held an embedded piece of carbon in its middle! --jim nn7k

--

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:aseeotbrs1@venus.btinternet.com...
> There are probably two carbon blocks separated by a thin layer of glue or
> paint.
>
> The paint breaks down at crudely 500 volts which provides protection for
> internal phone equipment against voltages above 500. Very good for
> protecting phones from lightning strikes near phone lines. Been used for
100
> years ?
>
> But 500 volts is too high for radio receivers.
>
>
>
> --
> ==========
> Regards from Reg G4FGQ
> For Free Radio Design Software
> Go to http://www.g4fgq.com
> ==========
> "Jim" <inagaddadavida@webtv.net> wrote in message
> news:29079-3DEA663D-281@storefull-2177.public.lawson.webtv.net...
> > i have the small blue block that is used to keep lightning out of a
> > residential phone instillation. is this ok for an antenna lightning
> > arrester? has anyone tried this?
> >
>
>

3613. Re: FS: Old Antenna Literature

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 02:37:13 UTC
From: lc <larryc@northwest.com>
Message-ID: <3DEAC759.AC840258@northwest.com>
Source record: 130250

it's not that old (30 years?) ...but maybe middle age makes it closer
than it is...
========
Barry wrote:

> for sale:
> 1)Hy-Gain:
> Amateur Radio Antennas, 2 - 160 mtrs, 1976 (2)
> Amateur HF antennas, base/mobile, Catalog #200
> Amateur HF/VHF, base/mobile, Catalog A (3/1/72)
> Amateur HF/VHF, base/mobile, Catalog A (8/71)
> Amateur VHF, base/mobile, (11/63)(2)
> Hy-Gain Communication Antennas, looks like a very early catalog!
> one batch of miscellaneous Hy-Gain lit
>
> 2)Cush-Craft
> Amateur Antennas, HF/VHF/UHF, Catalog A-7A
> Amateur Antennas, FM HF/VHF/UHF, Catalog A-8 (2)(1974 price list)
> Amateur Antennas, HF/VHF/UHF, Catalog A15
>
> 3)Hustler
> 1978 CB/Monitor/Amateur/Professional Catalog
>
> 4)KLM
> 1976-77 HF/VHF/UHF Antennas, VHF/UHF transceivers, amps, accessories
> 1977-78 same as above
> Summer 1980 Antennas/Amps/Accessories (2)
> Antennas/Accessories (?, 6% CA tax, tho!)
>
> 5)Mosley
> 1963 Amateur Catalog (big)
> 1964 (?) catalog (small)
> 1967/8 catalog (small)
> 1972 (price list) Catalog, large, Amateur antennas
> batch of single/dual sheet info sheets, etc
>
> 6)Miscellaneous
> Lance, New-Tronics, Antenna Specialists, Tristao towers, GAM, Telrex,
> Scala, Unadilla/Reyco, etc.
>
> let me know if you have any interest in any of these.
> tnx,
> barry
> carson city, nv

> http://home.att.net/~btuttleman2/electron.html

3614. Re: Wire antennas for HF (new and clueless about antennas!)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 02:51:47 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <CMnqPb61vOBw85NeXooRY1t+kbGK@4ax.com>
Source record: 130254

"Jackie L." <buzzygirl@REMOVE.attbi.com> wrote:

>
>"Mark Hall" <mark.hall34@verizon.net> wrote in message
>news:9tzG9.24865$%r6.17858@nwrddc02.gnilink.net...
>> Hmmm.. those trees sound real interesting..
>
>Well, I didn't really understand what you were describing with the fishing
>line and slingshots (I am *really, seriously* clueless about this whole
>process) but the problem here is that the trees that I *could* use for any
>sort of tree-strung wire antenna- i.e., those closest to my shack- are too
>close to power lines. I would not attempt to climb or slingshot anything
>into them for that reason. Most of the trees just outside where my ham shack
>will be snake their tops through power lines, unfortunately... I should've
>posted that to begin with.
>
>Jackie

Okayyy... Radio Shack sells a push-up 36' guyed metal mast for about $70. Find a clear spot, hoist it, guy it. The mast will hold up the middle of a dipole. The ends of the dipole can droop down in a "V" pattern. This is called an "inverted V" dipole.

Look in that antenna book you borrowed, and read up on "inverted V dipoles".

Possibility?

Bob
k5qwg

>
>Jackie
>

3615. Re: Wire antennas for HF (new and clueless about antennas!)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 03:00:18 UTC
From: "Jackie L." <buzzygirl@REMOVE.attbi.com>
Message-ID: <61AG9.198279$%m4.71877@rwcrnsc52.ops.asp.att.net>
Source record: 130255

"Bob Miller" <bxmillerSpamNot@texas.net> wrote in message
news:CMnqPb61vOBw85NeXooRY1t+kbGK@4ax.com...

> Look in that antenna book you borrowed, and read up on "inverted V
dipoles".
>
> Possibility?

I'll check those out and see if this will work.

Jackie

3616. Re: Wire antennas for HF (new and clueless about antennas!)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 03:05:55 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <n6AG9.24922$%r6.19290@nwrddc02.gnilink.net>
Source record: 130256

Ahhh.. well power lines would be a problem. If those trees are off limits, you could try loading into the gutters on your house with a tuner. To eliminate the requirement for a good earth ground, you might be able to figure out some way to connect the gutters on house together and feed them as a loop with your tuner. I've had excellent results with horizontal loop antennas at low heights. I'd recommend the loop, but I've been called "Loopy" more than a few times. Good Luck!

mark

"Jackie L." <buzzygirl@REMOVE.attbi.com> wrote in message
news:JBzG9.205051$1O2.12940@sccrnsc04...
>
> "Mark Hall" <mark.hall34@verizon.net> wrote in message
> news:9tzG9.24865$%r6.17858@nwrddc02.gnilink.net...
> > Hmmm.. those trees sound real interesting..
>
> Well, I didn't really understand what you were describing with the fishing
> line and slingshots (I am *really, seriously* clueless about this whole
> process) but the problem here is that the trees that I *could* use for any
> sort of tree-strung wire antenna- i.e., those closest to my shack- are too
> close to power lines. I would not attempt to climb or slingshot anything
> into them for that reason. Most of the trees just outside where my ham
shack
> will be snake their tops through power lines, unfortunately... I should've
> posted that to begin with.
>
> Jackie
>
> Jackie
>
>

3617. Re: Wire antennas for HF (new and clueless about antennas!)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 03:15:35 UTC
From: "Jackie L." <buzzygirl@REMOVE.attbi.com>
Message-ID: <rfAG9.198404$%m4.72916@rwcrnsc52.ops.asp.att.net>
Source record: 130257

"Mark Hall" <mark.hall34@verizon.net> wrote in message
news:n6AG9.24922$%r6.19290@nwrddc02.gnilink.net...
> Ahhh.. well power lines would be a problem. If those trees are off
limits,
> you could try loading into the gutters on your house with a tuner. To
> eliminate the requirement for a good earth ground, you might be able to
> figure out some way to connect the gutters on house together and feed them
> as a loop with your tuner.

What do you mean by "feed them as a loop"? How does one do that?

Jackie

3618. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 03:15:48 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asej8ubab1@slb6.atl.mindspring.net>
Source record: 130258

Guns, what guns?

Those are miniature pedestrian mobile antennas for my VX-1 HT.

--
Peter K1PO
Indialantic By-the-Sea, FL

"Rick Littlefield" <k1bqt@aol.com> wrote in message
news:20021201201905.02879.00000197@mb-cq.aol.com...
> >Please stop talking like this, you're going to scare people.<
>
> Oh Oh Peter, we're busted. Back on topic.
>
> Rick K1BQT

3619. Re: Opinions on TH7-DXX vs. Cushcraft X7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 03:38:14 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <GAAG9.4355$4j5.2480016@newssvr28.news.prodigy.com>
Source record: 130253

I would consider SteppIR.

Covers all frequencies from 14-54 MHz.
Very lightweight.
Optimized at all freqs...bandwidth not a factor.
Only 3 elements...much less objectionable appearance.
User reports have been awesome on user group.
Better performance than LPDA at fraction of the size.
No traps, resonators, etc.
Instantly reversible.

--
73,
Larry N8LP
www.telepostinc.com/n8lp.html

"J. McLaughlin" <JCM@Power-Net.Net> wrote in message
news:uulfv0na020407@corp.supernews.com...
> Dear Ed:
> A few observations:
> 1. 70 feet high will significantly improve 20 meter performance.
> 2. Consider a log periodic array. The T10 described here works very
> well on all bands 20+
> http://www.tennadyne.com/default.htm
> LP do not use traps.
> 3. The X7 only covers three bands. There is a lot of action on the
> other bands. Cushcraft service has been seen as lacking
> 4. The TH7 only covers three bands. It seems to be favored over the
> X7. The new MFJ Hy-Gain service remains to be seen.
> 5. All of the above antennas have a purchase cost that is about the
> same.
>
> 73 Mac N8TT
> P.S. If you do go for a T10, ask me for hints on its assembly.
> --
> J. Mc Laughlin - Michigan USA
> Home: JCM@Power-Net.Net
> Office: JCM@McLMcL.Com
> "Hobbes" <hobbestg@voicenet.com> wrote in message
> news:3DEA7746.5B8@voicenet.com...
> > Dear Group,
> >
> > I will be putting up a beam at my new QTH shortly. Before I moved, for
> a
> > number of years I used a TH6-DXX at 55 ft. and was satisfied with its

> > performance. I am trying to decide if I should go with a new TH7-DXX,
> > which would be very similar to my old beam, or one of the Cushcraft X7
> > beams, which I know very little about. Either antenna will again be
> > installed at 55 ft. Any opinions on which one you would go with?
> > Thanks and 73
> >
> > Ed K2ZE
>
>

3620. Re: Opinions on TH7-DXX vs. Cushcraft X7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 05:20:37 UTC
From: Ramon <kp4tr@hotmail.NOSPAM.com>
Message-ID: <F4CG9.263241$fa.5285501@twister.tampabay.rr.com>
Source record: 130259

You can check out the reviews at www.eham.net/reviews. I installed a Cushcraft X7 about 2 months ago and I am extremely satisfied with it's performance. It's installed at 50 feet. It can even be used in 12M and 17M with a tuner.

I know nothing of the TH7-DXX.

73!

"Hobbes" <hobbestg@voicenet.com> wrote in message news:3DEA7746.5B8@voicenet.com...
> Dear Group,
>
> I will be putting up a beam at my new QTH shortly. Before I moved, for a
> number of years I used a TH6-DXX at 55 ft. and was satisfied with its
> performance. I am trying to decide if I should go with a new TH7-DXX,
> which would be very similar to my old beam, or one of the Cushcraft X7
> beams, which I know very little about. Either antenna will again be
> installed at 55 ft. Any opinions on which one you would go with?
> Thanks and 73
>
> Ed K2ZE
>

3621. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 05:49:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uult3sh3qejm8a@corp.supernews.com>
Source record: 130260

Reg Edwards wrote:
>
> { Hi Roy, how's things up there in wet-ribbon-line Washington? Which is
> what I really remember you for ;o) ;o) }
> ---
> Best Regards, Reg.
>

Actually, if things keep up like they are, I'll have to apologize to Cecil. We're not having a dry winter here (in Oregon, not Washington, but that's o.k. -- we get along ok with our brothers to the north), but nearly a Texas-dry winter. Why, I could have used ladder line for a couple of weeks in a row.

Cecil, if you ever get tired of plinkin' at armadillos with your arsenal, or runnin' 'em down with your monster truck, come on up to Ory-gun. We could use some weather forecasters with your skill. Any non-felon can get a concealed gun permit here in Oregon, and your truck would be right in place in any of the rural areas (provided it's properly tricked out with a populated gun rack and NRA sticker). Your shootout-winner will pass as a 10 kW CB whip, no prob. So, except for the rain, you should feel right at home.

Roy Lewallen, W7EL

3622. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 07:20:16 UTC
From: tdonaly@aol.com
Message-ID: <20021202022016.09006.00000111@mb-cp.aol.com>
Source record: 130261

>
>Reg Edwards wrote:
> >
> > { Hi Roy, how's things up there in wet-ribbon-line Washington? Which is
> > what I really remember you for ;o) ;o) }
> > ---
> > Best Regards, Reg.
> >
>
>Actually, if things keep up like they are, I'll have to apologize to
>Cecil. We're not having a dry winter here (in Oregon, not Washington,
>but that's o.k. -- we get along ok with our brothers to the north), but
>nearly a Texas-dry winter. Why, I could have used ladder line for a
>couple of weeks in a row.
>
>Cecil, if you ever get tired of plinkin' at armadillos with your
>arsenal, or runnin' 'em down with your monster truck, come on up to
>Ory-gun. We could use some weather forecasters with your skill. Any
>non-felon can get a concealed gun permit here in Oregon, and your truck
>would be right in place in any of the rural areas (provided it's
>properly tricked out with a populated gun rack and NRA sticker). Your
>shootout-winner will pass as a 10 kW CB whip, no prob. So, except for
>the rain, you should feel right at home.
>
>Roy Lewallen, W7EL
>

Is Cecil really a redneck?
73,
Tom Donaly, KA6RUH

3623. Re: Wanted info on 144/440 Yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 08:17:05 UTC
From: KC8PMX <kc8pmx@NOSPAMdiamondcs.net>
Message-ID: <asflbr21kmt@enews2.newsguy.com>
Source record: 130171

Check out the ARRL Antenna Handbook or the ARRL Handbook. Both are good
starting sources for what you are looking for.

--
Ryan, KC8PMX
FF/MFR
REMOVE "NOSPAM" in email address to reply.

"Symbolism is for the simple minded....."

"Troy VK2HXY" <**vk2hxy@hotmail.com> wrote in message
news:0hmG9.787$nc2.47334@nnrp1.ozemail.com.au...
> Hi there people, I am new to the hobby, just recently (3 days) got my
> license and am now looking to homebrew my own antennas. I suppose that's
> what makes this hobby so interesting and enjoyable, I love a good
challenge.
>
> I am looking for information on how to build both a 70Cm and 2 M beam
> antenna. Looking for good proven performers, not looking at conducting
EME,
> but would love to be able to make some nice simplex QSO's over a fair
> distance.
>
> I have heard of Quagi antennas for 70Cm, are these worth building over a
> normal driven element type beam, or am I best to start with the basics?
>
> Which leads me to the next question, what's better a gamma style match or
a
> folded dipole DE? and lastly, what's considered better, through the boom,
> or shielded from the boom?
>
> If someone can point me in the right direction, or if anyone has plans
> please drop me a message at vk2hxy at hotmail dot com.
>
> Warmest regards from an Aussie Amateur
>
> 73 de VK2HXY
> Troy
>
>
>
>
>

3624. Re: Wire antennas for HF (new and clueless about antennas!)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 09:02:25 UTC
From: Dorian Creber <Dorian.Creber@[n.o.s.p.a.m.]>
Message-ID: <3deb21b8$0$4781$fa0fcedb@lovejoy.zen.co.uk>
Source record: 130262

You cold try joining the guttering (assuming it's metal) together with wire.
This would make a horizontal loop around the roofline... feed this with a
tuner and your off..

"Jackie L." <buzzygirl@REMOVE.attbi.com> wrote in message
news:rfAG9.198404$%m4.72916@rwcrnsc52.ops.asp.att.net...
>
> "Mark Hall" <mark.hall34@verizon.net> wrote in message
> news:n6AG9.24922$%r6.19290@nwrddc02.gnilink.net...
> > Ahhh.. well power lines would be a problem. If those trees are off
> limits,
> > you could try loading into the gutters on your house with a tuner. To
> > eliminate the requirement for a good earth ground, you might be able to
> > figure out some way to connect the gutters on house together and feed
them
> > as a loop with your tuner.
>
> What do you mean by "feed them as a loop"? How does one do that?
>
> Jackie
>
>

3625. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 10:19:25 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212020219.2f572932@posting.google.com>
Source record: 130263

<Jimnn7k@reno.rmci.net> wrote in message news:<XDyG9.21534$EY.1407@fe01>...
> Balderdash-- in rural locations, moving your antenna as little as 1/4
> wavelength will take a signal from MINIMUM to MAXIMUM ! why? because of
> different wave fronts caused by propagation cause the various recieved
> signals to ADD, or CANCEL the recieved signal. in fact, if you are going
> down a road , listening to your radio , at night, you can MEASUER THE
> WAVELENGTH (reciprical of the frequency) between the NULLS in the signals
> (1/2 wavelength points)!! go for the most antenna you can get, but doel
> (or more feeds itno the pattern would help the most! jim nn7k

I don't really get your point. Are you talking about reducing fading?
If I had that much room, I would use beverages, but I don't have room
for beverages. And if I ran a beverage, I doubt I would want to place
it as high as I could get it.
5-10 ft off the ground is plenty. You are talking 470 ft of wire for a
1/2 wave just at 1000 kc.
Nearly 1000 ft for a full wave beverage. And then it needs to be in a
straight line to function properly. I have a funny feeling this may a
be problem in the mountains. Then you have the problem of being stuck
in that one pattern unless you run more beverages. If you run just a
fairly long random wire that possibly will have bends, etc, I would
consider it fairly omnidirectional.
In that case, I can't see how it would be better than a loop as far as
overly receiving quality. I have an inv L for 160m, and also a T
vertical for the same band. Also a dipole. All are fairly "hot"
antennas as far as MW, but I rarely prefer them over the loop. I have
no way to null crud out. And you would have no way to do this using
wire antennas, unless you had multiple beverages, or whatever. I kind
of doubt he is going to want to go to that much trouble just to listen
to a few MW stations. I can't see the point of worrying about wave
fronts and propagation in this case. They will constantly vary
according to many factors. You might want to clarify on this.
I don't see how he would be able to null out unwanted stations and
noise using a single wire. Using a loop, nulling a local noise source
or unwanted signal is usually very sharp and critical on the placement
of the loop. How are you going to do this kind of precise nulling
using wire antennas that don't require an act of congress to install?
I find it much easier to turn a small loop that sits on the floor next
to me. And the loop is dirt cheap to build also. Another plus... MK

http://web.wt.net/~nm5k/

3626. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 11:48:52 UTC
From: k1bqt@aol.com
Message-ID: <20021202064852.21114.00009112@mb-fx.aol.com>
Source record: 130264

>Those are miniature pedestrian mobile antennas for my VX-1 HT.<

I had to get a concealed carry permit for my FT-817. What a totally neat radio!

Rick K1BQT

3627. Re: Wire antennas for HF (new and clueless about antennas!)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 11:52:45 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <hQHG9.24515$ic6.13490@nwrddc01.gnilink.net>
Source record: 130265

That's right, connect them together (but provide a open circuit feed point for your tuner) making a conductive loop around your house. Do a web search on "horizontal loop antenna" or something like that. You probably won't be able to get a full wavelength on 40 meters (~135') unless you have a very large house, but with a tuner it should work on 40 - 10 meters. If you have aluminum siding this idea probably won't work at all. It's worth a try for an unobtrusive/dirt cheap antenna.

'73 Mark

"Dorian Creber"
<Dorian.Creber@[n.o.s.p.a.m.]camfordpress.[n.o.s.p.a.m.].co.uk> wrote in message news:3deb21b8$0$4781$fa0fcedb@lovejoy.zen.co.uk...
> You cold try joining the guttering (assuming it's metal) together with wire.
> This would make a horizontal loop around the roofline... feed this with a
> tuner and your off..
>
>
>
> "Jackie L." <buzzygirl@REMOVE.attbi.com> wrote in message
> news:rfAG9.198404$%m4.72916@rwcrnsc52.ops.asp.att.net...
> >
> > "Mark Hall" <mark.hall34@verizon.net> wrote in message
> > news:n6AG9.24922$%r6.19290@nwrddc02.gnilink.net...
> > > Ahhh.. well power lines would be a problem. If those trees are off
> > limits,
> > > you could try loading into the gutters on your house with a tuner. To
> > > eliminate the requirement for a good earth ground, you might be able
to
> > > figure out some way to connect the gutters on house together and feed
> them
> > > as a loop with your tuner.
> >
> > What do you mean by "feed them as a loop"? How does one do that?
> >
> > Jackie
> >
> >
>
>

3628. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 12:05:26 UTC
From: fractenna@aol.com
Message-ID: <20021202070526.01374.00000116@mb-cr.aol.com>
Source record: 130266

>>BTW, your response to my offer to let you review a manuscript on low Q,
>electrically small genetically optimized antennas is---<
>
>[ ] Accepted
>[X] Respectfully declined.
>
>Rick K1BQT
>

Thus you are not motivated by issues of science and innovation. Say Art; isn't it funny that when I offer to show these guys hardware or to critique results they just kinda fall into insults and gun discussions?

Or better yet, they pretend that I didn't spend a huge number of hours from 1994-2001 educating hams on fractal antennas.

There is a war going on fellas, and I see no reason to provide project information to hams at this point. Sorry, but that's how it is.

If you get info from elsewhere, ask yourself who its coming from and why its being provided.

73,
Chip N1IR

3629. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 12:07:32 UTC
From: fractenna@aol.com
Message-ID: <20021202070732.01374.00000117@mb-cr.aol.com>
Source record: 130267

K1BQT said:

>Antennaland has a rich legacy of "innovators" with a perchant for rewriting
>Maxwell.

Please cite a link or publication where I in any way claimed to re-write
Maxwell's equations.

73,
Chip N1IR

3630. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 12:13:05 UTC
From: fractenna@aol.com
Message-ID: <20021202071305.01374.00000118@mb-cr.aol.com>
Source record: 130268

>
>"Fractenna" <fractenna@aol.com> wrote in message
>news:20021126152120.14034.00000257@mb-fm.aol.com...
>> I told you where to look.
>>
>
>I presume you mean to post the results on www.n1ir.com. Is this correct?
>
>> It will appear, and the issue will be non-existent.
>>
>> The bigger issue--which has been orchestrated (and I use that word
>correctly)
>> by a handful of 'senior' antenna folks (tell us who they are, Steve) is
>the
>> dubious issue of 'fractals do no better than other
>small/broadband/frequency
>> independent/antennas'.
>>
>> The answer is 'yes'.
>>
>
>Stop being so paranoid. Nothing has been orchestrated. The only "problem"
>here is that someone outside the fractal community has placed your work and
>the work of others in the fractal field, under a fine microscope and
>questioned your hypothesis on the significance of fractal geometry.
>Unfortunately, the only way you know how to deal with this is to cry foul
>and make claims of some great conspiracy.
>
>Had you and the others approached this issue scientifically and even
>bothered to compare antennas with fractal geometries to antennas having the
>same physical properties and only differing in geometry, you wouldn't be in
>this situation.
>
>Steve VE9SRB
>
>

I require a public retraction of this statement. You have asserted that I have not approached fractal antennas scientifically.

This is demonstrably false.

Your statements indicate that you do not consider our disagreements as scientific ones between colleagues, and that some other dynamic applies. That is not acceptable to me. I am giving you the opportunity to correct this here,

where the statement was made, and return the issues to ones of science between scientists.

Cordially,
Nathan Cohen

3631. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 12:14:48 UTC
From: fractenna@aol.com
Message-ID: <20021202071448.01374.00000119@mb-cr.aol.com>
Source record: 130169

>Steve:
>
>[snip]
>> Had you and the others approached this issue scientifically and even
>> bothered to compare antennas with fractal geometries to antennas having
>the
>> same physical properties and only differing in geometry, you wouldn't be
>in
>> this situation.
>>
>> Steve VE9SRB
>[snip]
>
>Narrow minds breed narrow thinking!
>
>--
>Peter K1PO
>Indialantic By-the-Sea, FL
>

This is public evidence that others have interpreted your statement as defamatory. I repeat that the statement needs retraction.

Cordially,
Nathan Cohen

3632. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 12:18:20 UTC
From: fractenna@aol.com
Message-ID: <20021202071820.01374.00000120@mb-cr.aol.com>
Source record: 130170

> Now that fractals
>have been wholeheartedly abandoned, there is scant artifice available
>to provide a mantle of respectability.
>
>73's
>Richard Clark, KB7QHC
>

Again, the issues are scientific fact --as it applies to showing your statements are demonstrably false--and secondly the statute of limitations in relevant jurisdictions. Ask a lawyer what that means.

Your statements here are a false presentation of the value of fractals (which is not an issue relating to me) and false statements regarding me and my work.

The rest is for you to contemplate in your copious free time.

Cordially,

Nathan Cohen

3633. Re: Wire antennas for HF (new and clueless about antennas!)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 13:50:34 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DEB736B.CDBBF6F2@townsqr.com>
Source record: 130172

Jackie,

Yours is another case which defies conventional wisdom, ie "higher is always better" and others which we won't bother with now. What you need is something workable that is also practical and do-able in your situation. Lots of us have been there and might be able to help by recounting some of our experiences.

I've found that the best simple, easiest fed antenna is a simple single band dipole. In your case I recommend you try to use 40 meters if you can find about 66 feet of space to hang it. It won't need to be straight, it can bend in whatever ways needed to fit. Tho higher IS almost always better, low will work very well and a low mounting height is not as much a signal killer as other factors, such as close proximity to other metal things which can soak up RF and detune it causing matching and other problems. Always get the feedpoint up as much as you easily can, that's the high current point on a dipole and means the most toward radiating your RF. The height of the dipole ends is not so important. Don't worry about the "angle" at which the ends droop, it'll work. Just don't hang them straight down. 90 degrees is workable, more if necessary.

If you can get a small coax out of the house and run it to the trees (or a wood fence), you can run the antenna wire through the trees above head height to keep the kids out of it. You can hang the antenna wires from limbs using small nylon cord or fairly heavy fishing line (don't try the small, low weight stuff or you'll be re-hanging it often in your icy weather). Also if you use common soft copper wire Ice will stretch it and probably it'll come down broken. Soft wire is easier to get but not sturdy, though it'll last a while and can be easier to get. In your case I'd use smaller wire to keep it "clandestine" as possible, generates less inquires = less potential problems. 24 gauge wire can work OK. The larger the soft copper wire the sturdier, but alas, also the more visible. Stretching soft copper "work-hardens" it and makes it a little tougher. But do the measuring after the stretching :-).

Here's what I've done in similar situations. I found a set of swaged aluminum tent poles, the kind that are 2 or 3 feet long and fit together end in end, and I use them to make up a mast of whatever height I can use at a given portable place, usually no more than 10 or 12 feet high. I use them to hold up the center of a 20 meter dipole that is around 33 feet long (two pieces of wire half that long fed with the coax cable in the center at the tent pole), with the ends tied off wherever is handy- tree limbs, wherever. Then when I want to work 40 meters I use 2 more pieces of wire the same lengths with alligator clips on one end, and clip those wires onto the ends of the 20 meter antenna, again hanging the added wires wherever I can. They will be low, but it won't stop them from working. If you do use a rig with an auto tuner (I often use a Kenwood TS570D which can be found very reasonably on the used market. It's a very good and a nice rig BTW and has an antenna tuner builtin-but it's not a single wire tuner)

and it loads this arrangment very well. I recommend it highly if you can find one.
This antenna arrangement lends itself well to "quick setup and takedown" as you may find is needed in your particular circumstances. It can easily be set up to stay awhile, too. I use it lots on CW and HF digital operation in temporary locations.

I have also mounted a dipole directly on a wooden fence, weaving the small copper wire between a few of the upright wooden boards at the top. Works, but not well in wet weather.

If you do decide to go with a long wire and tuner, you'll have to use a single wire tuner such as the SGC or the Alinco EDX-2 which works with their DX70T transceiver. I also have that pair and have used them camping with a 60 foot wire hung wherever I could hang the other end when operating from a motor home, never above 10 feet or so. Using a 40 foot piece of wire lying on the ground under the camper as the "ground" it works well and I make all sorts of contacts even on 75/80 meters. Of course it would work better if it was higher.
Be aware that if you use this sort of setup the tuner needs to be outside the house since it's output is HOT with radiating RF. This means that you will have to be able to exit the house with not only a coax feedline but also a control cable to operate the tuner.

I've always been reluctant to feed a metal raingutter for a few reasons. They are never well bonded together unless they are one piece construction, even then the downspout isn't well bonded to the gutter. This means they won't work right unless you can rework the connections between the gutter parts, and that is usually a very tough and "iffy" proposition. Also the uncertainty of it all means the possibility of high voltages being present in unknown locations, and that's not good for several reasons, one of which is the (even remote) possibility of fire.

Inside antennas have always seemed to me to be a very last resort. So far I've never used one other than an attic dipole when visiting at my daughter's home in a CCR subdivision a few years ago. You'll virtually always experience unpleasant RFI to most every other electronic device in the house.

In any event, you're on the right track. Ask questions and evaluate the answers. You'll learn enough to get something stirring. Remember, it doesn't have to be all that much of an antenna to get you on the air making lots of satisfying contacts. You should have seen what I used as a novice.

And as an HF ham you will probably find that improvement of your antenna situation is an ongoing way of life! Seems there is always a better way to do it that pops up from time to time.

73 and again, welcome to ham radio

Dick W0EX
.

"Jackie L." wrote:

> Hello,
>
> I'm new to the hobby (was licensed 10/02) and am in the process of learning
> CW so I can get a General upgrade within the next 6-8 weeks I have not
> bought an HF rig yet, but I'm thinking about the IC 718, which looks to be
> nice and easy for a beginner to use, I don't need lotsa bells 'n whistles
> myself. I'll buy a separate VHF/UHF rig for local work, and already know
> what antenna I'm getting for that rig.
>
> The issue I'm having is this... I've done a thorough search of the environs
> around my house, and have come to the conclusion that the only type of
> antenna I will be able to use will be a longwire type for HF. Why?
>
> Well... my place abuts a park to the south, I mean just 10 feet off my deck,
> there's park property- ergo, lots of trees. There is no room on my roof for
> a beam or vertical either as a result of overhanging trees (I don't own the
> house, the owner won't let me put up an antenna there anyway). A dipole
> coming off a tree won't work, because I've got kids that play in the yard,
> and they will for sure run into it where it'll be coming into the house-
> high-traffic play area. The only other spot I could put up a vertical would
> be too close to powerlines. I have no attic to speak of other than a puny
> crawlspace (I live in a rambler). So.
>
> Here's my question- if I were to buy a long-wire type antenna and snake it
> along the roofline or gutters, and bought an automatic antenna tuner, could
> I possibly get enough signal push and pull to make it worthwhile? I don't
> know much about antennas, and the stuff in the ARRL antenna book I borrowed
> from a friend is going right over my head now (no pun intended- I do intend
> to learn more about this subject, but right now, that book's too advanced
> for me).
>
> I have no CC&R's or other restrictions to deal with, other than living in a
> heavily treed-and-powerlined area. Also, any suggestions on good websites on
> antennas for absolute newbies to build would be most welcomed.
>
> If I have to buy some smallish antenna for indoors, I'll do so, but I think
> I could make a longwire work in my situation. Unless there is some
> miraculous, low-profile HF wonder-antenna that I'm not aware of, that I
> could strap onto a gutter bracket or onto the house, just outside the
> window, that would pull in signals from far away? I am looking at an eave
> that is sitting about 6 feet from my head out the window; it would be so
> easy to attach something along the edge of the roofline, or even drape it
> off the gutters or whatever, as the connection would come right into the
> area where I will have my shack, with no danger of anyone running into it
> from outside or touching it without a ladder (the house is built on a slight
> incline as well). But being an utter novice in antenna theory, I don't know
> if that would work, or if the gutters would interfere, or what.
>
> Thanks in advance for your suggestions. I'm sure you get questions like this
> all the time, but I'm really new and I know many hams like to help out the
> newbies.

>
> Jackie KC0ODY
> In the Beautiful "North Metro Area"
> Mpls./St. Paul, Minnesota

3634. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 14:01:12 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DEB75EB.E7DDC724@townsqr.com>
Source record: 130173

Fractenna wrote:

> If you get info from elsewhere, ask yourself who its coming from and why its
> being provided.

We already know were it's NOT coming from, and why it's NOT being provided.

Sure hope we don't have to fight a war depending on Fractal antenna technololgy.

3635. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 14:09:21 UTC
From: k3bu@aol.com
Message-ID: <20021202090921.18588.00000503@mb-fp.aol.com>
Source record: 130174

>
>I require a public retraction of this statement. You have asserted that I
>have
>not approached fractal antennas scientifically.
>
>This is demonstrably false.

Frankly my dear? We don't give a frac!

Bada BUm BUm

3636. Re: Wanted info on 144/440 Yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 14:48:02 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <2spmuu435uqktqtsj8ledua3l1ohpdtndu@4ax.com>
Source record: 130175

On Sun, 1 Dec 2002 22:23:19 +1100, "Troy VK2HXY"
<**vk2hxy@hotmail.com> wrote:

|Hi there people, I am new to the hobby, just recently (3 days) got my
|license and am now looking to homebrew my own antennas. I suppose that's
|what makes this hobby so interesting and enjoyable, I love a good challenge.

Congratulations and welcome.

|
|I am looking for information on how to build both a 70Cm and 2 M beam
|antenna. Looking for good proven performers, not looking at conducting EME,
|but would love to be able to make some nice simplex QSO's over a fair
|distance.

Good for you. But don't rule out EME; you say you love a good
challenge :)

|
|I have heard of Quagi antennas for 70Cm, are these worth building over a
|normal driven element type beam, or am I best to start with the basics?

The quagi was an effort to simplify the driven element and derive some
inherent gain from it. I think it has pretty much been determined
that both "advantages" were elusive and the design has fallen into
disfavor.

|
|Which leads me to the next question, what's better a gamma style match or a
|folded dipole DE? and lastly, what's considered better, through the boom,
|or shielded from the boom?

Forget the gamma, especially at UHF. Almost all modern designs use a
folded-dipole or tee-matched driven element. With the greater use of
computer modeling, designs have been developed with near 50 ohm
feedpoint impedances which make possible directly-driven split driven
elements.

There are several element mounting possibilities:

1) Above (or below) the boom on insulators.
2) Above (or below) the boom using metal fasteners.
3) Uninsulated through the boom.
4) Insulated through the boom.
5) Non-metallic boom.

Each has advantages and disadvantages but the differences are
primarily mechanical. The more the element is changed in diameter or

"shorted out" the more correction factor is required, but be assured
there will be an appropriate correction factor for each case, and
these are widely published.

|
|If someone can point me in the right direction, or if anyone has plans
|please drop me a message at vk2hxy at hotmail dot com.

Some places to start looking:

http://ham.te.hik.se/homepage/sm5bsz/index.htm

http://www.ifwtech.co.uk/g3sek/

3637. Aluminum in San Diego area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 15:13:56 UTC
From: Stahr <w6nycthetrash@earthlink.net>
Message-ID: <UMKG9.408$hM3.69800@newsread2.prod.itd.earthlink.net>
Source record: 130176

Could somebody tell me where, in the San Diego area, I can find some
aluminum to build a simple 10m dipole?

Thank you
--

73 de:
Dennis Stahr - W6NYC

http://www.qsl.net/w6nyc/
Take out "the trash" when return emailing

3638. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 15:16:45 UTC
From: richardharrison@webtv.net
Message-ID: <23317-3DEB795D-700@storefull-2317.public.lawson.webtv.net>
Source record: 130181

Alan Fowler wrote:
"Now does the current flow up to the sheet, flow out over one side of the sheet, across the edge, back down the other side then continue along the wire---?"

Exactly. When a conducting sheet is impaled on a wire, its skin effect blocks penetration if no hole is left open for the current to squeeze through. Current must transfer from the wire to the sheet`s surface to get from the wire on one side to the wire on the other side. It cannot take the short-cut directly through the conducting sheet or through the wire. Skin effect blocks direct passage.
Best regards, Richard Harrison, KB5WZI

3639. Re: Aluminum in San Diego area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 15:20:41 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <dTKG9.54956$kz4.2670898@news2.west.cox.net>
Source record: 130177

Give Industrial Liquidators a call
http://www.digitalcity.com/sandiego/shopping/details.adp?companykey=10046703
2

Industrial Liquidators
204 S Rancho Santa Fe Rd # 210
San Marcos, CA 92069
760-599-0674

Otherwise a selection of mail order tubing can be found at URL:
http://www.texastowers.com/aluminum.htm

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com

"Stahr" <w6nycthetrash@earthlink.net> wrote in message
news:UMKG9.408$hM3.69800@newsread2.prod.itd.earthlink.net...
> Could somebody tell me where, in the San Diego area, I can find some
> aluminum to build a simple 10m dipole?
>
> Thank you
> --
>
> 73 de:
> Dennis Stahr - W6NYC
>
> http://www.qsl.net/w6nyc/
> Take out "the trash" when return emailing
>
>
>
>

3640. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 15:31:11 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <31LG9.39834$hK4.3547735@bgtnsc05-news.ops.worldnet.att.net>
Source record: 130178

"Fractenna" <fractenna@aol.com> wrote in message
news:20021202071305.01374.00000118@mb-cr.aol.com...
>
> I require a public retraction of this statement. You have asserted that I
have
> not approached fractal antennas scientifically.
>
> This is demonstrably false.
>
> Your statements indicate that you do not consider our disagreements as
> scientific ones between colleagues, and that some other dynamic applies.
That
> is not acceptable to me. I am giving you the opportunity to correct this
here,
> where the statement was made, and return the issues to ones of science
between
> scientists.
>
> Cordially,
> Nathan Cohen

Nathan:

Our disagreement on the benefits of fractal geometry antennas has always been scientific from my perspective. I'm sorry that you interpreted my statements as meaning otherwise. I certainly never meant them to be defamatory relative to your scientific methods. I will retract my statements in a separate thread.

Steve VE9SRB

3641. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 15:35:23 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DEB8BFC.A43B6DC0@townsqr.com>
Source record: 130179

Reg Edwards wrote:

>
> But I'm sure you would not wish to encourage those who jump to the
> conclusion that radiation mainly occurs from those PARTS of a dipole which
> carry the greatest current thus incorrectly conveying the impression that
> some parts are more important than others.

I can say with confidence in my own experience that when you mount the feedpoint of a half wave dipole low to the ground and the ends high, it doesn't work out worth a darn. But when you mount the feedpoint high, and the ends low, it does.

I think we all know where the high current point is located.

You may draw whatever conclusions you wish from that, as I have.

Dick

3642. Fractal Geometry and Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 15:38:37 UTC
From: wood@itd.nrl.navy.mil
Message-ID: <wood-0212021038370001@jbw-mac.itd.nrl.navy.mil>
Source record: 130180

Hello, everyone, and whew! This topic certainly stirs a lot of passion among newsgroup members. As to the applicability and advantages of fractal geometry in antenna design I would look to IEEE publications on the subject. Granted, not all members of r.r.a.a. are electrical/electronics engineers but publication of a paper by the IEEE generally lends credibility to the subject since papers generally require significant peer review prior to publication. One that I found that functions as a fractal antenna primer of sorts is:

J.P. Gianvitorrio & Y. Rahmat-Samii, "Fractal Antennas: A Novel Antenna Miniaturization Technique," IEEE Antennas and Propagation, Vol. 44 No.1, pp 20-36, Feb. 2002.

The above paper is NOT heavily math oriented and quite readable, IMHO. FWIW and sincerely,

John Wood (Code 5551) e-mail: wood@itd.nrl.navy.mil
Naval Research Laboratory
4555 Overlook Avenue, SW
Washington, DC 20375-5337

3643. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 15:50:26 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DEB8F83.80795C00@townsqr.com>
Source record: 130182

K3UD wrote:

>
> I have used half slopers with success for 22 years, experimenting with
> wire lengths, top loading, and radials under the tower. I have found
> that in my installation, 32 - 38 feet up on the tower works well. I have
> also found that the more top loading you have on the tower in the way of
> HF and VHF beams, the better the system performs.
>
> I once tried to use a 35 foor push up pole at a field day site as the
> half sloper support grounded at the base. It did not perform well at all
> and I think it was because top loading was not present in the
> installation.
>
> Radials attached to the base of the tower seem to help a bit as I once
> set up a system where I could disconnect the radials via a remotely
> operated relay from inside the shack and make A/B comparisons on
> different bands. Becuase the radials were in the ground and the tower
> base was also in the ground I suspect that they still had some
> interaction when disconnected.
>
> Most stations reported a difference when the radials were disconnected,
> although the difference never amounted to a few db on the minus side,
> and some noticed no difference. The interesting thing about this
> experiment was that some stations told me they could definatly hear a
> difference in the signal with the radials attached, but could not see
> difference on their S meters. The swr as measured in the shack did
> change a bit on most bands though.
>
> I also found that no matter how much I tried, I could never get a better
> than 3/1 match on 75 meters while there was not much problem getting
> good matches on 160 and 40 meters. While a standard 1/2 sloper on 40
> meters works well, A 3/4 wave sloper on 40 worked better.
>
> At one time I had individual half slopers on the tower for 160/75 and 40
> meters all running in different directions. I found that except for 75
> meters, the angle of the wire can have an effect the swr as measured in
> the shack.
>
> Presently, I am using the Alpha Delta DX-B ($25 on eBay.... could not
> resist) and it works well on the 4 bands it is designed for although the
> best SWR on 75 is about 4/1. On 160 it is very narrow in terms of
> bandwidth havinf about a 15khz range +/- it's resonant frequency. On the
> other hand, one wire replaced three. I have worked a surprising amount

> of DX on 160 and 75 with it, and A very good amount on 40.
>
> These are just my observations gathered after 22 years of use and I do
> not claim to be an expert of any sort nor do I own any analyzers of
> computer plotting programs. Just cut and try.
>

George, that's an interesting report and reflects some of my experience at using the Alpha Delta DX-A. My tower is 60 feet with an old TH3MK3, 11 element 2meter yagi and a 5/8 wave dc grounded 2meter ground plane topping the 10 ft. mast. It turned out to be pretty well broadbanded on 160 and worked about as well as the full sized dipole I later put up. I think the tower and its attachments caused it to be broadbanded and to work well, also. No doubt Roy is right, the tower etc does a lot of the radiating. And I always wondered about using one on a pushup mast. Unsurprising to learn they don't perform nearly as well. My DX-A is mounted at 30 feet on the tower.

I can't help wondering how one would model the tower and all that's on it. :-)

Dick W0EX

3644. Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 15:51:17 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <VjLG9.39844$hK4.3548704@bgtnsc05-news.ops.worldnet.att.net>
Source record: 130183

To all Concerned:

I received the following correspondence via e-mail from Mr. Cohen:

>>>>
2 December 2002

Mr. Best--

On the rec.radio.amateur.antenna newsgroup you recently made a public and defamatory statement about me and asserted that my scientific research is not scientific.

That statement is false.

I require a retraction from you on that forum. If I do not see that retraction within the next 48 hours I shall assume that your intent was defamation. If the remedy is not met then I will have to file a civil complaint within the statute of limitations in the Commonwealth.

I assume that you are forwarding this correspondence to your attorney. I will not engage in any correspondence from you or your attorney on this matter and will only respond to a summons with the objective of a jury trial.

Nathan Cohen
>>>>

Mr. Cohen's correspondence was in reference to statements I made on this newsgroup in the thread "Fractal Debate". The statements I made were the following:

>>>>
Had you and the others approached this issue scientifically and even bothered to compare antennas with fractal geometries to antennas having the same physical properties and only differing in geometry, you wouldn't be in this situation.
>>>>

I would like to publicly apologize to Mr. Cohen as it appears that he interpreted my statements to mean that it is my opinion that his work in the area of fractal antennas is "not scientific". My statements were not meant to be defamatory, nor were they meant to express or imply that I perceive Mr. Cohen's work in the area of fractal antennas to be "not scientific".

It is my opinion that Mr. Cohen's work in the area of fractal antennas is, in fact, scientific. I respectfully retract my statements as written and regret that Mr. Cohen misinterpreted them.

However, it is my scientific opinion that Mr. Cohen's scientific work in the area of fractal antennas has not been sufficiently thorough. It is my scientific opinion that his and other's scientific work in this area has been incomplete. I should have written my statements as follows:

>>>>
It is my scientific opinion that you and others working in this field should have approached this issue in more depth. It is my scientific opinion that published research in this field is incomplete. In publishing the performance properties of fractal antennas, it is my scientific opinion that you and others should have compared the fractal geometry antenna designs to other geometry antenna designs having similar physical properties like the same size and same total wire length. In doing so, it is my scientific opinion that you and the others would have recognized that the behavior (lower resonant frequency, higher radiation resistance, etc) exhibited by the fractal geometry antennas is not unique to the fractal geometry antennas. Other geometries having the same physical parameters exhibit similar, and in many cases, improved (better) performance. Additionally, it is my scientific opinion that you and others should have compared the performance of fractal geometry antennas with other geometry antennas where they are resonant at the same frequency. In doing so, it is my scientific opinion that you would have recognized that the resonant performance of the fractal geometry antennas is not unique to the fractal geometry antennas.
>>>>

That was a summary of my scientific opinions and my understanding of our scientific disagreement. If you disagree with my scientific opinions, I would be pleased to debate them as you feel appropriate.

Regards,

Steve VE9SRB

3645. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 15:58:02 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEB830A.1030203@ieee.org>
Source record: 130184

Roy Lewallen wrote:
> ... your truck
> would be right in place in any of the rural areas (provided it's
> properly tricked out with a populated gun rack and NRA sticker).

You know, Roy, that's one thing that has changed since I was a boy.
I don't see many populated gun racks anymore. It's just too easy
to steal the guns. I do, however, have an NRA sticker and a bumper
sticker that says, "MY PRESIDENT IS CHARLTON HESTON".
--
cheers, CAM http://www.qsl.net/w5dxp

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3646. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 15:59:21 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEB8359.2070101@ieee.org>
Source record: 130185

Tdonaly wrote:
> Is Cecil really a redneck?

I'm an ethnic redneck.
--
cheers, CAM http://www.qsl.net/w5dxp

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3647. Re: Aluminum in San Diego area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 16:04:37 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEB8495.3070103@ieee.org>
Source record: 130186

Stahr wrote:
> Could somebody tell me where, in the San Diego area, I can find some
> aluminum to build a simple 10m dipole?

The large hardware stores around here carry aluminum tubing.
--
cheers, CAM http://www.qsl.net/w5dxp

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3648. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 16:34:13 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DEB99C6.EFBE6C03@townsqr.com>
Source record: 130187

Fractenna wrote:

> >
> >"Fractenna" <fractenna@aol.com> wrote in message
> >news:20021126152120.14034.00000257@mb-fm.aol.com...
> >> I told you where to look.
> >>
> >
> >I presume you mean to post the results on www.n1ir.com. Is this correct?
> >
> >> It will appear, and the issue will be non-existent.
> >>
> >> The bigger issue--which has been orchestrated (and I use that word
> >correctly)
> >> by a handful of 'senior' antenna folks (tell us who they are, Steve) is
> >the
> >> dubious issue of 'fractals do no better than other
> >small/broadband/frequency
> >> independent/antennas'.
> >>
> >> The answer is 'yes'.
> >>
> >
> >Stop being so paranoid. Nothing has been orchestrated. The only "problem"
> >here is that someone outside the fractal community has placed your work and
> >the work of others in the fractal field, under a fine microscope and
> >questioned your hypothesis on the significance of fractal geometry.
> >Unfortunately, the only way you know how to deal with this is to cry foul
> >and make claims of some great conspiracy.
> >
> >Had you and the others approached this issue scientifically and even
> >bothered to compare antennas with fractal geometries to antennas having the
> >same physical properties and only differing in geometry, you wouldn't be in
> >this situation.
> >
> >Steve VE9SRB
> >
> >
>
> I require a public retraction of this statement. You have asserted that I have
> not approached fractal antennas scientifically.
>
> This is demonstrably false.
>

> Your statements indicate that you do not consider our disagreements as
> scientific ones between colleagues, and that some other dynamic applies. That
> is not acceptable to me. I am giving you the opportunity to correct this here,
> where the statement was made, and return the issues to ones of science between
> scientists.

It appears that your problem isn't one of "isn't it science?" but rather one of "it IS psuedoscience". So far your work looks more like that of a charlatan than a scientist. One can only hope that you haven't convinced some clueless procurement officer that the war can be better fought using your Advanced Fractal Antenna Systems in place of "old" technology. As a veteran of wartime military service, to me this is not trivial stuff. Lives can depend on it and probably will.

If your claims for fractal antennas include that they are, as physically smaller radiators, more efficient radiators than conventional geometeries, you simply will not be able to support that contention scientifically. Pseudoscientifically is another matter.

But so far I haven't seen what your contentions actually are. Back when I was interested enough to ask you weren't talking and looks like you're still not. If you can tell us in plain language right here on this NG how you conclude that fractal antennas have any electrical advantage whatever over conventional configurations, you would be well advised to do it and spare yourself, and us all, even further ..... you can fill in the blanks to suit yourself as others will do.

But you can't. Or won't, same difference. If there is no electrical advantage but the antennas work well enough in a physically compressed form to gain a real space advantage for what they actually ARE capable of doing, that alone might easily be enough reason for DOD and others to purchase them in serious quantities, such as was once the case with the B&W HF Terminated Folded Dipole. But if you ever want to see the end of this fiasco you alone hold the key to its finish.

3649. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 16:36:56 UTC
From: Doz <doz@postmaster.com>
Message-ID: <3deb8c28$0$4784$fa0fcedb@lovejoy.zen.co.uk>
Source record: 130188

Chicken!!

"VE9SRB" <srbest@att.net> wrote in message
news:VjLG9.39844$hK4.3548704@bgtnsc05-news.ops.worldnet.att.net...
> To all Concerned:
>
> I received the following correspondence via e-mail from Mr. Cohen:
>
> >>>>
> 2 December 2002
>
> Mr. Best--
>
> On the rec.radio.amateur.antenna newsgroup you recently made a public and
> defamatory statement about me and asserted that my scientific research is
> not scientific.
>
> That statement is false.
>
> I require a retraction from you on that forum. If I do not see that
> retraction within the next 48 hours I shall assume that your intent was
> defamation. If the remedy is not met then I will have to file a civil
> complaint within the statute of limitations in the Commonwealth.
>
> I assume that you are forwarding this correspondence to your attorney. I
> will not engage in any correspondence from you or your attorney on this
> matter and will only respond to a summons with the objective of a jury
> trial.
>
> Nathan Cohen
> <<<<
>
> Mr. Cohen's correspondence was in reference to statements I made on this
> newsgroup in the thread "Fractal Debate". The statements I made were the
> following:
>
> >>>>
> Had you and the others approached this issue scientifically and even
> bothered to compare antennas with fractal geometries to antennas having
the
> same physical properties and only differing in geometry, you wouldn't be
in
> this situation.
> <<<<

>
> I would like to publicly apologize to Mr. Cohen as it appears that he
> interpreted my statements to mean that it is my opinion that his work in
the
> area of fractal antennas is "not scientific". My statements were not
meant
> to be defamatory, nor were they meant to express or imply that I perceive
> Mr. Cohen's work in the area of fractal antennas to be "not scientific".
>
> It is my opinion that Mr. Cohen's work in the area of fractal antennas is,
> in fact, scientific. I respectfully retract my statements as written and
> regret that Mr. Cohen misinterpreted them.
>
> However, it is my scientific opinion that Mr. Cohen's scientific work in
the
> area of fractal antennas has not been sufficiently thorough. It is my
> scientific opinion that his and other's scientific work in this area has
> been incomplete. I should have written my statements as follows:
>
> >>>>
> It is my scientific opinion that you and others working in this field
should
> have approached this issue in more depth. It is my scientific opinion
that
> published research in this field is incomplete. In publishing the
> performance properties of fractal antennas, it is my scientific opinion
that
> you and others should have compared the fractal geometry antenna designs
to
> other geometry antenna designs having similar physical properties like the
> same size and same total wire length. In doing so, it is my scientific
> opinion that you and the others would have recognized that the behavior
> (lower resonant frequency, higher radiation resistance, etc) exhibited by
> the fractal geometry antennas is not unique to the fractal geometry
> antennas. Other geometries having the same physical parameters exhibit
> similar, and in many cases, improved (better) performance. Additionally,
it
> is my scientific opinion that you and others should have compared the
> performance of fractal geometry antennas with other geometry antennas
where
> they are resonant at the same frequency. In doing so, it is my scientific
> opinion that you would have recognized that the resonant performance of
the
> fractal geometry antennas is not unique to the fractal geometry antennas.
> >>>>
>
> That was a summary of my scientific opinions and my understanding of our
> scientific disagreement. If you disagree with my scientific opinions, I
> would be pleased to debate them as you feel appropriate.
>

> Regards,
>
> Steve VE9SRB
>
>

3650. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 16:40:26 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <_1MG9.39883$hK4.3552422@bgtnsc05-news.ops.worldnet.att.net>
Source record: 130189

"Doz" <doz@postmaster.com> wrote in message
news:3deb8c28$0$4784$fa0fcedb@lovejoy.zen.co.uk...
> Chicken!!
>
>

You missed the point.

3651. Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 16:46:02 UTC
From: John Smith <someone@microsoft.com>
Message-ID: <3deb8dfb$1_3@news.newsgroups.com>
Source record: 130190

I am a volunteer for a local Ski Patrol. We are using mostly Motorola handheld FM radio's in the 155mhz range (about 100 of them). We have a base station at the top of the mountain and at the bottom. This year we have added CTCSS and now can screen out all of the annoying other rescue squads that used to dominate us (at the top of the mountain). However, we STILL have not solved our poor coverage problem. Specifically, we have dead zones all over the mountain where we cannot communicate handheld to handheld or handheld to the top or bottom. Sometimes, we can't communicate well even from the top to the bottom. In addition, we have a "back side" of the mountain, where we can only communicate from the backside to the top, and where we would like to be able to talk to the base (at the very bottom).

My question is, would a repeater help this situation the most? Or maybe better (higher) antenna's? Would it be possible (practical) to have a repeater at the top AND at the bottom? Would something like the Vertex VXR1000 connected to our base statations (which are really just mobils with transformers) be of any practical use?

I would appreciate any advice, especially on how to do this on a shoe-string (we are a volunteer organization).

I've posted the question in the equipment group, but thought you guys might suggest antenna's instead.

Thanks,

Mark Rees
(Using someone elses account)
markrees@mindspring.com

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3652. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 17:01:11 UTC
From: 'Doc <ltdoc@yahoo.com>
Message-ID: <3DEB91D7.8020602@yahoo.com>
Source record: 130191

Steve,
I see that 'ol'Frac' is up to his old trick of
suing those he doesn't 'agree' with. Do you have
any idea of what your number is on the 'To be Sued'
list?
'Doc

3653. Re: Mobile high SWR multi antenna problem.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 17:13:36 UTC
From: 'Doc <ltdoc@yahoo.com>
Message-ID: <3DEB94C0.6040002@yahoo.com>
Source record: 130192

JEEPMON,
The simplest 'cure' would be to move one of the antennas
to another mounting spot on your vehicle. The next 'simplest'
would be to retune both antennas till you have an acceptible
SWR on both (not the easiest, and definitely not very quick).
When you mount any two antennas that close together there will
be some adverse interaction, just no way around it. You may
'loose' a bit by moving one antenna, but not as much as you
might think, and it'll still be 'better' than what you have
now.
Good luck...
'Doc

3654. Re: Antenna question?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 17:21:20 UTC
From: 'Doc <ltdoc@yahoo.com>
Message-ID: <3DEB9690.7050206@yahoo.com>
Source record: 130193

nospam,
As popinted out in another post, it's the height
above ground, not the height above sea level that
determines how 'well' a particular antenna workd.
Being at the top of the hill is 'better' than being
in a valley, but the same antenna in either place
would work about the same (unless your talking about
the bottom of the Grand Canyon).
'Doc

3655. Re: "Jaybeam Inverse Balun"???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 17:25:10 UTC
From: 'Doc <ltdoc@yahoo.com>
Message-ID: <3DEB9776.2010606@yahoo.com>
Source record: 130194

Brian,
Since the input impedance of a folded dipole is
something on the order of 300 ohms, then a 6:1 balun
should match it to 50 ohm coax pretty well. I have
no idea what an 'inverse balun' would be.
'Doc

3656. Re: "Jaybeam Inverse Balun"???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 17:38:47 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <BYHGfaBnq569EA9q@ifwtech.co.uk>
Source record: 130195

Brian Reay wrote:

>I'm looking to organise a club project to build a folded dipole for the UK
>70MHz band- that aim is to get some newly qualified Intermediate / Novice
>Licences onto 70MHz.by converting a bit of PMR kit and building an antenna.
>
>Basically, I'd like to 'copy' a commercial antenna, I have which covers 68
>to 88MHz or so.
>
>However, I can't figure out what the balan and impedance matching
>arrangements are- they are 'potted' in epoxy or similar.
>
>Someone has suggested that it would use an "inverse balun" comprising a
>'hair pin' of insulated wire would on a metal former. The loop is connected
>to the feed points of the folded dipole with the coax (50 ohm) inner to one
>of the dipole feed points but the braid to the metal former.
>
>I've never come across anything like this before but I am told Jaybeam used
>to use this method.
>
So this antenna was made by Jaybeam (you didn't specifically say so),
and the size and shape of the enclosure are all consistent with one of
their inverse baluns (about 2.5in diameter, 4in long)?

>Can anyone cast any light on this please- I've found nothing on the web.

Unlikely that you would, since it was a proprietary device and the
company hasn't been in the amateur radio market for a long time.

Basically the "inverse balun" was an attempt to make a compact and more
weatherproof version of the half-wave coax balun. This 4:1 balun is
usually made using an electrical half-wavelength of coax as a phase
inverter between the two sides of the feedpoint.

The Jaybeam balun turns this "inside out" by winding an electrical
half-wave hairpin of insulated wire onto a tongue of metal. This metal
is connected to the outer of the coax feedline. The inner of the
feedline and one side of the dipole connect to one free end of the
hairpin. The other side of the dipole connects to the other free end of
the hairpin.

AFAIK there are no published design data for this. The wire and the
metal tongue form a transmission line, and the aim would be to make the
characteristic impedance about 100 ohms (not critical). Also the
velocity factor is not known. However, it did work.

As a further complication, Jaybeam were rather fond of making the dipole over-length and the balun under-length, as a form of reactance compensation to make the whole thing more broadband... or so they claimed.

Jaybeam were always very much into proprietary features with catchy names. They actually did a lot of serious experimental and range work, but some of the innovation was purely to establish a niche in a very competitive market. I feel sure that some of the claims (especially gain) would not stand up to modern examination.

If you were going to copy this dipole, you'd have to copy the physical dimensions of the folded dipole, and then cut-and-try with the inverse balun until you got a good impedance match. Since you can't un-pot the existing unit, you'd be literally working blind. It would be a lot easier to use a half-wave of coax!

Finally, all these baluns we've been talking about are "voltage baluns". Unlike "current baluns" they take no direct steps to reduce currents flowing on the surface of the feedline.

Why not a simple un-folded dipole, with a simple and effective current balun made by coiling up a bit of the coax? The centre mouldings for 0.5in tubing elements are readily available from antenna manufacturers at rallies (hamfests) in the UK.

I'm sure that most of them already sell a pre-cut 70MHz dipole. If you explained that it was for a construction/teaching project, they could probably be persuaded to sell you a batch with the tubing un-cut!

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

3657. Where to put the wire antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 18:22:17 UTC
From: Buddy <noway@jose.com>
Message-ID: <B7EF04C60FE692C3.14D2470A7801E7D8.9543C0DDD30D3338@lp.airnews.net>
Source record: 130196

I'm real close to getting my general ticket. The antenna question keeps challenging me though. I don't have a lot of money to spend or space to string up a dipole in its ideal position. No trees here and a wife who demands an unseen approach. I can't seem to find any real good information which addresses my problem. I'll probably buy a decent vertical or Sigma V when I can get the bucks together.

I'm considering a G5RV or Carolina Windom since they seem to be the best bang for the buck. I have a fairly good size house with 70 ft. of straight eaves running on one side. Wouldn't RF be a problem mounting under the eaves though?

How about over the roof? Like an inverted V? I've got plenty of that. I could lay it on the roof with no problem. Is this a good idea? What kind of problems could I experience?

Finally I could go around the perimeter of the wood fence. It would take one hard 90 degree turn. It would only be about 6 feet off the ground though.

Any help is appreciated.

3658. Re: Fractal Geometry and Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 18:54:29 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <qf9nuu413v2mhpimbi786sciev9vqkgcct@4ax.com>
Source record: 130197

On Mon, 02 Dec 2002 10:38:37 -0500, wood@itd.nrl.navy.mil (J. B. Wood) wrote:

>Hello, everyone, and whew! This topic certainly stirs a lot of passion
>among newsgroup members. As to the applicability and advantages of
>fractal geometry in antenna design I would look to IEEE publications on
>the subject. Granted, not all members of r.r.a.a. are
>electrical/electronics engineers but publication of a paper by the IEEE
>generally lends credibility to the subject since papers generally require
>significant peer review prior to publication. One that I found that
>functions as a fractal antenna primer of sorts is:
>
>J.P. Gianvitorrio & Y. Rahmat-Samii, "Fractal Antennas: A Novel Antenna
>Miniaturization Technique," IEEE Antennas and Propagation, Vol. 44 No.1,
>pp 20-36, Feb. 2002.
>
>The above paper is NOT heavily math oriented and quite readable, IMHO.
>FWIW and sincerely,
>
>John Wood (Code 5551) e-mail: wood@itd.nrl.navy.mil
>Naval Research Laboratory
>4555 Overlook Avenue, SW
>Washington, DC 20375-5337

Hi John,

Given the very limited circulation of this paper, and even more limited availability following its publication, and given resources available on the net already covering this topic - why do you simply stop with reciting a reference and leave us in the cold without synopsis nor comment on its contents?

Did you read it? Do you understand it? What does it have to offer other than the condescending palliative of being dumbed down? What in the course of discussions suggests the topic has a problem of rather simple geometrical or fundamental issues? What does it respond to that has yet to be explored?

This is part and parcel to the heat of this topic: The dissemination of ideas versus the veil of remote references impeding examination as a debate tactic. Citations support arguments, they do not replace their open discussion.

You can kick start your reference with one particular observation:
>>> 'fractals do no better than other small/broadband/frequency
>>>independent/antennas'.

>>>
>>>The answer is 'yes'.
Does your reference respond to the statement and its affirmation?

No? What's the point if it cannot cope with something this
fundamental?

Yes? What's left to say?

73's
Richard Clark, KB7QHC

3659. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 19:04:02 UTC
From: gaschafer@attbi.com
Message-ID: <3debaeed.13895776@netnews.attbi.com>
Source record: 130198

Hi John,

Yes a repeater at the top would solve some of the problems. However
VHF repeater frequency
pairs (frequencies) may not be easy to come by.

The antenna that is on the top may be "too good of an antenna". If it
is a multi element (gain)
type of antenna, the first thing that you could try is to put a
smaller antenna up there. A quarter
wave ground plane antenna would be best. Even mounting it upside down
would help. This will
give some down tilt to the pattern.

What happens with gain antennas that are up very his is that the
pattern goes straight out and
overshoots the lower areas that you are trying to cover. This is one
case where higher gain
antennas are worse than a simple antenna.

73
Gary K4FMX

On Mon, 2 Dec 2002 11:46:02 -0500, "John Smith"
<someone@microsoft.com> wrote:

>I am a volunteer for a local Ski Patrol. We are using mostly Motorola
>handheld FM radio's in the 155mhz range (about 100 of them). We have a base
>station at the top of the mountain and at the bottom. This year we have
>added CTCSS and now can screen out all of the annoying other rescue squads
>that used to dominate us (at the top of the mountain). However, we STILL
>have not solved our poor coverage problem. Specifically, we have dead zones
>all over the mountain where we cannot communicate handheld to handheld or
>handheld to the top or bottom. Sometimes, we can't communicate well even
>from the top to the bottom. In addition, we have a "back side" of the
>mountain, where we can only communicate from the backside to the top, and
>where we would like to be able to talk to the base (at the very bottom).
>
>My question is, would a repeater help this situation the most? Or maybe
>better (higher) antenna's? Would it be possible (practical) to have a
>repeater at the top AND at the bottom? Would something like the Vertex
>VXR1000 connected to our base statations (which are really just mobils with
>transformers) be of any practical use?
>
>I would appreciate any advice, especially on how to do this on a shoe-string
>(we are a volunteer organization).

>
>I've posted the question in the equipment group, but thought you guys might
>suggest antenna's instead.
>
>Thanks,
>
>Mark Rees
>(Using someone elses account)
>markrees@mindspring.com
>
>
>
>
>
>------------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
> http://www.newsfeed.com The #1 Newsgroup Service in the World!
>-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

3660. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 19:04:41 UTC
From: fractenna@aol.com
Message-ID: <20021202140441.19554.00000474@mb-ba.aol.com>
Source record: 130199

>To all Concerned:
>
>I received the following correspondence via e-mail from Mr. Cohen:
>
>>>>>
>2 December 2002
>
>Mr. Best--
>
>On the rec.radio.amateur.antenna newsgroup you recently made a public and
>defamatory statement about me and asserted that my scientific research is
>not scientific.
>
>That statement is false.
>
>I require a retraction from you on that forum. If I do not see that
>retraction within the next 48 hours I shall assume that your intent was
>defamation. If the remedy is not met then I will have to file a civil
>complaint within the statute of limitations in the Commonwealth.
>
>I assume that you are forwarding this correspondence to your attorney. I
>will not engage in any correspondence from you or your attorney on this
>matter and will only respond to a summons with the objective of a jury
>trial.
>
>Nathan Cohen
>>>>>
>
>Mr. Cohen's correspondence was in reference to statements I made on this
>newsgroup in the thread "Fractal Debate". The statements I made were the
>following:
>
>>>>>
>Had you and the others approached this issue scientifically and even
>bothered to compare antennas with fractal geometries to antennas having the
>same physical properties and only differing in geometry, you wouldn't be in
>this situation.
>>>>>
>
>I would like to publicly apologize to Mr. Cohen as it appears that he
>interpreted my statements to mean that it is my opinion that his work in the
>area of fractal antennas is "not scientific". My statements were not meant
>to be defamatory, nor were they meant to express or imply that I perceive
>Mr. Cohen's work in the area of fractal antennas to be "not scientific".

>
>It is my opinion that Mr. Cohen's work in the area of fractal antennas is,
>in fact, scientific. I respectfully retract my statements as written and
>regret that Mr. Cohen misinterpreted them.
>
>However, it is my scientific opinion that Mr. Cohen's scientific work in the
>area of fractal antennas has not been sufficiently thorough. It is my
>scientific opinion that his and other's scientific work in this area has
>been incomplete. I should have written my statements as follows:
>
>>>>>
>It is my scientific opinion that you and others working in this field should
>have approached this issue in more depth. It is my scientific opinion that
>published research in this field is incomplete. In publishing the
>performance properties of fractal antennas, it is my scientific opinion that
>you and others should have compared the fractal geometry antenna designs to
>other geometry antenna designs having similar physical properties like the
>same size and same total wire length. In doing so, it is my scientific
>opinion that you and the others would have recognized that the behavior
>(lower resonant frequency, higher radiation resistance, etc) exhibited by
>the fractal geometry antennas is not unique to the fractal geometry
>antennas. Other geometries having the same physical parameters exhibit
>similar, and in many cases, improved (better) performance. Additionally, it
>is my scientific opinion that you and others should have compared the
>performance of fractal geometry antennas with other geometry antennas where
>they are resonant at the same frequency. In doing so, it is my scientific
>opinion that you would have recognized that the resonant performance of the
>fractal geometry antennas is not unique to the fractal geometry antennas.
>>>>>
>
>That was a summary of my scientific opinions and my understanding of our
>scientific disagreement. If you disagree with my scientific opinions, I
>would be pleased to debate them as you feel appropriate.
>
>Regards,
>
>Steve VE9SRB
>
>

Many thanks to Dr. Best for this retraction.

Dr. Best and I have differences regarding scientific issues which do not, and should not, extend to personal ones.

I am of the opinion that anyone who misinterprets our exchanges as ones meant to defame the other is doing both of us a disservice, and Dr. Best has also made this clear by the statement here.

Both Dr. Best and I sufficiently respect each other as colleagues that we understand the need and value of scientific exchange, as part of the process of

enlightening the state of the art.

I believe it is a fair assumption that Dr. Best and I would request that we all try to keep our exchanges civil, and accept that it is possible to have meaningful scientific agreements without any intent nor reason to defame the other.

I enjoy Dr. Best's insight, although I tend to occasionally disagree. I also personally have a high esteem for his experience in antenna engineering, and will strongly request anyone who takes my comments to the contrary to check with me personally.

Thanks all,

73
Chip N1IR

3661. Re: Where to put the wire antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 19:09:40 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEBAFF4.4020006@ieee.org>
Source record: 130200

Buddy wrote:
> Any help is appreciated.

I was once married to a demanding woman but I solved my problem.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3662. Onstar antenna on a GM SUV

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 19:32:17 UTC
From: daedalus@ptd.net
Message-ID: <5475b434.0212021132.441d8133@posting.google.com>
Source record: 130201

Does anyone in teh group know where the coax terminates from the
Onstar antenna in a 2000 GM SUV?

I have no need for Onstar but would like to avoid adding another
antenna on my new (for me) 2000 GM SUV.

Thanks,
Jack - WA2OLZ
daedalus@ptd.net

3663. receive-only antenna for FT-920

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 19:36:34 UTC
From: Benson Wills <blackhole@doozy.us>
Message-ID: <blackhole-0CEAC5.14363402122002@corp.supernews.com>
Source record: 130202

I'm getting a FT-920 for Christmas and will be using it for just SWL of the broadcast bands until spring when I can get a 6M antenna up. I understand that the 920 has a RCA jack for a receive-only antenna. Short of stringing a piece of wire across the room, is there something else that works better for inside use, and doesn't cost a fortune?

--
E-mail replies: change 'blackhole' to 'usenet3'

3664. Re: Where to put the wire antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 19:51:41 UTC
From: Buddy <noway@jose.com>
Message-ID: <08A4E2F7A563751E.D0F8F029A4BEA5AB.9840FD048A8CEFEB@lp.airnews.net>
Source record: 130203

Yeah, I thought of that. But I love her too much! Damn, can she ever
cook too.

In article <3DEBAFF4.4020006@ieee.org>, Cecil.A.Moore@ieee.org says...
>
>
>Buddy wrote:
>> Any help is appreciated.
>
>I was once married to a demanding woman but I solved my problem.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>
>
>
>-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
>http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
>-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3665. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 20:01:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uunevufepkm52@corp.supernews.com>
Source record: 130204

Ian has made a very important point here which needs to be emphasized, since it addresses a real problem in understanding skin depth.

You might have read on this newsgroup or elsewhere that skin depth is "defined" as the depth at which the current density drops to 1/e (about 37%) of its value at the surface. I hope I wasn't one of the guilty parties that made this statement -- if so, I apologize and retract it. I think this misstatement is the cause of some of the misunderstanding of the meaning of the term.

It would be correct to say that the skin depth is defined as the depth at which the current drops to 1/e of its value at the surface *in an infinitely thick, homogeneous piece of the specified material*. Therefore the skin depth, as Ian points out, is an intrinsic property of the material (at a given frequency, since skin depth is also a function of frequency). This means that the current density doesn't necessarily drop to 37% of the surface value at one skin depth in all shapes and thicknesses of the material -- only in material that's thick enough. The skin depth remains the same regardless of the size or shape of the material sample; the shape of the current penetration - vs - depth curve does not. However, it does follow the nice exponential and easily calculated decay any time the conductor is at least several skin depths thick (and the curvature of the surface is small on the scale of the skin depth).

As I and others have pointed out, at HF and above, the skin depth is very shallow in good conductors, so the assumption that a physically useful conductor is at least several skin depths thick is nearly always a good one. And the current density will decay to 1/e its surface value at a depth of one skin depth provided that this assumption is valid. However, this is not the *definition* of skin depth.

Roy Lewallen, W7EL

Ian White, G3SEK wrote:
> Art Unwin KB9MZ wrote:
>
>>> If the material is only 3 skin depths thick (or 6 if current flows on
>>> both sides) then the error in the calculated RF resistance is only 5% -
>>> and that's hardly "out the window".
>>
>
>> Now we are getting to the nitty gritty, it is suggested that skin
>> depths are an exact science and I question this. If I use a material
>> for low frequencies that is as thin or thinner than a stated 'SKIN
>> DEPTH' then there must be a change in thinking. If we are to agree

>> (and I think we do) then there must be a large change in the so called
>> skin depth after all the material started off at the same thicknes!
>
>
> This is correct.
>
> But you are wrong to say that "skin depth is an inexact science". The
> science is very exact. The situation when cross-sections become very
> small is totally understood.
>
> The problem is with language. The only reliably correct language of
> science is mathematics. Any other spoken or written language is an
> approximation, and occasionally falls down.
>
> The term "skin depth" is always used to mean an inherent physical
> property of the material. It is calculated exactly from two other
> inherent material properties, resistivity and permeability (although it
> also varies with frequency). Used in this sense, "skin depth" is
> independent of the actual physical dimensions of the conductor.
>
> If you read Roy's most recent posting, that is exactly how he uses the
> term; and that is perfectly correct, because that's how the community of
> engineers and scientists has agreed to use those two words.
>
> Thus you may hear such statements as "This gold plating isn't as thick
> as the skin depth." This makes perfect sense because "skin depth" is
> being used in its understood meaning: one of the inherent material
> properties of gold.
>
>

3666. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 20:11:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uunfk23bjlb8ea@corp.supernews.com>
Source record: 130205

Steve has backed up his opinions with several papers in professional publications. In addition, he's furnished some simple examples of randomly-bent wire antennas whose properties are equal or superior to a fractal antenna widely used to illustrate the fractal technique. EZNEC users can download EZNEC description and antenna notes files with these examples from ftp://eznec.com/pub/MI2/. Please see the 0notes.txt file in that directory for descriptions of the available examples.

Roy Lewallen, W7EL

VE9SRB wrote:
> . . .
> It is my scientific opinion that you and others working in this field should
> have approached this issue in more depth. It is my scientific opinion that
> published research in this field is incomplete. In publishing the
> performance properties of fractal antennas, it is my scientific opinion that
> you and others should have compared the fractal geometry antenna designs to
> other geometry antenna designs having similar physical properties like the
> same size and same total wire length. In doing so, it is my scientific
> opinion that you and the others would have recognized that the behavior
> (lower resonant frequency, higher radiation resistance, etc) exhibited by
> the fractal geometry antennas is not unique to the fractal geometry
> antennas. Other geometries having the same physical parameters exhibit
> similar, and in many cases, improved (better) performance. Additionally, it
> is my scientific opinion that you and others should have compared the
> performance of fractal geometry antennas with other geometry antennas where
> they are resonant at the same frequency. In doing so, it is my scientific
> opinion that you would have recognized that the resonant performance of the
> fractal geometry antennas is not unique to the fractal geometry antennas.
> . . .

3667. Re: Wire antennas for HF (new and clueless about antennas!)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 20:12:39 UTC
From: "Lauri D. Lundgren" <n1ukx@99main.com>
Message-ID: <3DEBBEB7.E72D65B0@99main.com>
Source record: 130206

I have a dipole strung inside my apartment, along the cathedral ceiling, out to the walls and down the wall some. I used 16 gauge speaker wire, fed it with cheap 300 ohm TV line through an old MFJ tuner. That, along with my TR-7 and 50 watts, I never long for a contact. Try anything, you might be surprised. CU, Larry

"Jackie L." wrote:

> Hello,
>
> I'm new to the hobby (was licensed 10/02) and am in the process of learning
> CW so I can get a General upgrade within the next 6-8 weeks. I have not
> bought an HF rig yet, but I'm thinking about the IC 718, which looks to be
> nice and easy for a beginner to use, I don't need lotsa bells 'n whistles
> myself. I'll buy a separate VHF/UHF rig for local work, and already know
> what antenna I'm getting for that rig.
>
> The issue I'm having is this... I've done a thorough search of the environs
> around my house, and have come to the conclusion that the only type of
> antenna I will be able to use will be a longwire type for HF. Why?
>
> Well... my place abuts a park to the south, I mean just 10 feet off my deck,
> there's park property- ergo, lots of trees. There is no room on my roof for
> a beam or vertical either as a result of overhanging trees (I don't own the
> house, the owner won't let me put up an antenna there anyway). A dipole
> coming off a tree won't work, because I've got kids that play in the yard,
> and they will for sure run into it where it'll be coming into the house-
> high-traffic play area. The only other spot I could put up a vertical would
> be too close to powerlines. I have no attic to speak of other than a puny
> crawlspace (I live in a rambler). So.
>
> Here's my question- if I were to buy a long-wire type antenna and snake it
> along the roofline or gutters, and bought an automatic antenna tuner, could
> I possibly get enough signal push and pull to make it worthwhile? I don't
> know much about antennas, and the stuff in the ARRL antenna book I borrowed
> from a friend is going right over my head now (no pun intended- I do intend
> to learn more about this subject, but right now, that book's too advanced
> for me).
>
> I have no CC&R's or other restrictions to deal with, other than living in a
> heavily treed-and-powerlined area. Also, any suggestions on good websites on
> antennas for absolute newbies to build would be most welcomed.
>
> If I have to buy some smallish antenna for indoors, I'll do so, but I think
> I could make a longwire work in my situation. Unless there is some

> miraculous, low-profile HF wonder-antenna that I'm not aware of, that I
> could strap onto a gutter bracket or onto the house, just outside the
> window, that would pull in signals from far away? I am looking at an eave
> that is sitting about 6 feet from my head out the window; it would be so
> easy to attach something along the edge of the roofline, or even drape it
> off the gutters or whatever, as the connection would come right into the
> area where I will have my shack, with no danger of anyone running into it
> from outside or touching it without a ladder (the house is built on a slight
> incline as well). But being an utter novice in antenna theory, I don't know
> if that would work, or if the gutters would interfere, or what.
>
> Thanks in advance for your suggestions. I'm sure you get questions like this
> all the time, but I'm really new and I know many hams like to help out the
> newbies.
>
> Jackie KC0ODY
> In the Beautiful "North Metro Area"
> Mpls./St. Paul, Minnesota

3668. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 20:26:14 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asgfl5rki1@venus.btinternet.com>
Source record: 130207

Dick,

Are you working on the basis that you are one of 50,000 old-wives who can't be wrong. This is radio - not a detergent powder!

The fact that in many cases antenna efficiency appears to decrease when the high-current parts are located nearer to the ground has no bearing on what parts of an antenna "do most of the radiating".

==========

You don't say what conclusions you have drawn. Have you considered the radiation pattern may change adversely when switching between Inverted-V and V antennas?

Have you considered dependency on ground conductivity and that opposite effects may be observed with high resistance soil. It depends on HOW the antenna is coupled to ground loss resistance - inductive or capacitive - via the antenna middle or its ends.

Radiation resistance depends on the degree of coupling between antenna and ground. But this behaviour throws no light on what parts of an antenna may radiate more than others, if any part radiates at all.

For calculating purposes an image antenna is sometimes supposed to exist below ground. Its imaginary induced currents and voltages can be calculated along with the distant fields they produce. Combined with the field from the real antenna the resultant computed far field is correct.

Yet the image antenna itself is non-existent. Does the image really radiate? What a computer program thinks it does may bear no resemblance to what happens in the real world. Another program may be brainwashed into thinking the distant field is the resultant of the direct wave and its reflection from the surface of the ground. If the answers are correct who cares. But be on your guard when attempting to extrapolate from what the computer thinks it is doing to conclusions otherwise unwarranted.

Would you infer radiation occurs mostly from the ends of a dipole if greatest loss occurs when the dipole ends are nearest to very high resistance soil? (Is the soil loss resistance now better matched to the generator?)

With a near perfect ground efficiency won't change with height of the apex of the V. That will certainly tell you nothing about what parts do the radiating.

I agree, as a rule of thumb, if you have a V above ordinary sorts of ground then invert it with the apex at the top.

==========

PS: No part of an antenna radiates. The radiation field is zero on
conductor surfaces. Energy becomes detached from the near-field with
increasing distance from the antenna because the near-field doesn't have
sufficient time to fully collapse back upon itself during the
radio-frequency cycle. The field velocity is restricted to that of light.
The energy detached gets lost in space and changes its name to Far Field.

There must be a mechanical analogy somewhere.

Reg, G4FGQ

==========

Dick wrote -
> I think we all know where the high current point is located.
>
> You may draw whatever conclusions you wish from that, as I have.

3669. Re: Where to put the wire antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 20:45:57 UTC
From: Bill Ogden <ogden@us.ibm.com>
Message-ID: <3DEBC685.6C5F93E0@us.ibm.com>
Source record: 130208

Under the eves has too many problems. It is likely to interact (both ways) with house wiring, and it is unlikely to load (with a modest SWR) at anywhere near the calculated lengths. On the roof is not quite as bad, but should be a last, last choice. Either one can make QSOs, but I suggest you try for something a little better.

Can you not go from one end of the roof ridge to almost any support. The higher, the better of course --- but something only 10' up will work. It will work better on the higher bands, but it will work to some degree and make many QSOs on any band. (Well, maybe not 160!) At this stage, a primary requirement is to keep it high enough so that no one can walk into the wire (or reach up and touch it). Also, you need to be concerned about feeding a dipole; you need enough coax to reach the center and the coax needs to be routed in some way that people do not walk into it, etc.

For any low dipole, the calculated lengths will not be quite right. Start with wire a little too long and trim (6" at a time) until the SWR is reasonable.

You did not say what band(s) you plan to use. If you have an antenna tuner, you can make better use of any dipole---at the expense of having to adjust the tuner every time you QSY.

Bill

3670. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 21:02:10 UTC
From: Eric Oyen - N7ZZT <eric.oyen@cox.net>
Message-ID: <pan.2002.12.02.14.03.10.17.32028@cox.net>
Source record: 130210

I am wondering..
is there a linux version of this type of program (antenna modeling, etc)?

it apears that the ftp site you listed below contains software strictly
for the windows users community. I'd apreciate some input into this.

thanks.

DE N7ZZT (Eric Oyen)
Phoenix, az. USA

In article <uunfk23bjlb8ea@corp.supernews.com>, "Roy Lewallen"
<w7el@eznec.com> wrote:

> Steve has backed up his opinions with several papers in professional
> publications. In addition, he's furnished some simple examples of
> randomly-bent wire antennas whose properties are equal or superior to a
> fractal antenna widely used to illustrate the fractal technique. EZNEC
> users can download EZNEC description and antenna notes files with these
> examples from ftp://eznec.com/pub/MI2/. Please see the 0notes.txt file
> in that directory for descriptions of the available examples.
>
> Roy Lewallen, W7EL

3671. Re: FS: Old Antenna Literature - SOLD!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 21:02:37 UTC
From: Barry <btuttleman@worldnet.att.net>
Message-ID: <3DEBCA79.6559190@worldnet.att.net>
Source record: 130209

items have been sold, tnx jay & everyone!
barry
carson city nv

3672. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 21:58:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uunlrgs59laq0e@corp.supernews.com>
Source record: 130211

EZNEC is a commercial product which, as you gathered, operates only under Windows. The reason for this is simple: the customer base for Macintosh, Linux, and other operating systems is simply too small to justify the time required to develop versions for these systems. Some people who do want to use operating systems other than Windows and at the same time have access to some of the richness of applications available for Windows use emulators to run Windows software. Although I can't guarantee that EZNEC will run on a particular system with an emulator, I've gotten a number of reports of success using it with emulators.

I suggest you take a look at http://www.qsl.net/wb6tpu/swindex.html. You'll find free antenna analysis software there compiled for Linux by people who have done it as a labor of love. NEC-2, which is free, will produce the same answers as EZNEC and similar software, although with a somewhat more cumbersome user interface.

Roy Lewallen, W7EL

Eric Oyen - N7ZZT wrote:
> I am wondering..
> is there a linux version of this type of program (antenna modeling, etc)?
>
> it apears that the ftp site you listed below contains software strictly
> for the windows users community. I'd apreciate some input into this.
>
> thanks.
>
> DE N7ZZT (Eric Oyen)
> Phoenix, az. USA
>
> In article <uunfk23bjlb8ea@corp.supernews.com>, "Roy Lewallen"
> <w7el@eznec.com> wrote:
>
>
>>Steve has backed up his opinions with several papers in professional
>>publications. In addition, he's furnished some simple examples of
>>randomly-bent wire antennas whose properties are equal or superior to a
>>fractal antenna widely used to illustrate the fractal technique. EZNEC
>>users can download EZNEC description and antenna notes files with these
>>examples from ftp://eznec.com/pub/MI2/. Please see the 0notes.txt file
>>in that directory for descriptions of the available examples.
>>
>>Roy Lewallen, W7EL
>

3673. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 22:10:50 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212021410.2b5cae7e@posting.google.com>
Source record: 130212

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DEB830A.1030203@ieee.org>...
> Roy Lewallen wrote:
> > ... your truck
> > would be right in place in any of the rural areas (provided it's
> > properly tricked out with a populated gun rack and NRA sticker).
>
> You know, Roy, that's one thing that has changed since I was a boy.
> I don't see many populated gun racks anymore. It's just too easy
> to steal the guns. I do, however, have an NRA sticker and a bumper
> sticker that says, "MY PRESIDENT IS CHARLTON HESTON".

I never was much of the "gun rack" type. I once had a truck with a gun rack, but I kept a huge 3-4 ft long adjustable wrench on it. It got as much attention as most guns, and nearly as deadly if I were to plonk someone over the head with it. If I have guns, I hide them. I like to be sneaky. Gives me that "Clint Eastwood" edge. Kind of like having the sun behind you in a shootout. I rarely have guns unless I'm going out of town to the boonies somewhere. I'm not going to bother getting a permit. I don't need a permit to carry a shotgun. Or a handgun either as long as I'm traveling out of the county.
MK

3674. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 22:43:03 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212021443.3aaf0955@posting.google.com>
Source record: 130213

"VE9SRB" <srbest@att.net> wrote in message
news:<VjLG9.39844$hK4.3548704@bgtnsc05-news.ops.worldnet.att.net>...
> To all Concerned:
>
> I received the following correspondence via e-mail from Mr. Cohen:
>
> >>>>
> 2 December 2002
>
> Mr. Best--
>
> On the rec.radio.amateur.antenna newsgroup you recently made a public and
> defamatory statement about me and asserted that my scientific research is
> not scientific.
>
> That statement is false.
>
> I require a retraction from you on that forum. If I do not see that
> retraction within the next 48 hours I shall assume that your intent was
> defamation. If the remedy is not met then I will have to file a civil
> complaint within the statute of limitations in the Commonwealth.
>
> I assume that you are forwarding this correspondence to your attorney. I
> will not engage in any correspondence from you or your attorney on this
> matter and will only respond to a summons with the objective of a jury
> trial.
>
> Nathan Cohen
> >>>>
>
> Mr. Cohen's correspondence was in reference to statements I made on this
> newsgroup in the thread "Fractal Debate". The statements I made were the
> following:
>
> >>>>
> Had you and the others approached this issue scientifically and even
> bothered to compare antennas with fractal geometries to antennas having the
> same physical properties and only differing in geometry, you wouldn't be in
> this situation.
> >>>>
>
> I would like to publicly apologize to Mr. Cohen as it appears that he
> interpreted my statements to mean that it is my opinion that his work in the
> area of fractal antennas is "not scientific". My statements were not meant

> to be defamatory, nor were they meant to express or imply that I perceive
> Mr. Cohen's work in the area of fractal antennas to be "not scientific".
>
> It is my opinion that Mr. Cohen's work in the area of fractal antennas is,
> in fact, scientific. I respectfully retract my statements as written and
> regret that Mr. Cohen misinterpreted them.
>
> However, it is my scientific opinion that Mr. Cohen's scientific work in the
> area of fractal antennas has not been sufficiently thorough. It is my
> scientific opinion that his and other's scientific work in this area has
> been incomplete. I should have written my statements as follows:
>
> >>>>
> It is my scientific opinion that you and others working in this field should
> have approached this issue in more depth. It is my scientific opinion that
> published research in this field is incomplete. In publishing the
> performance properties of fractal antennas, it is my scientific opinion that
> you and others should have compared the fractal geometry antenna designs to
> other geometry antenna designs having similar physical properties like the
> same size and same total wire length. In doing so, it is my scientific
> opinion that you and the others would have recognized that the behavior
> (lower resonant frequency, higher radiation resistance, etc) exhibited by
> the fractal geometry antennas is not unique to the fractal geometry
> antennas. Other geometries having the same physical parameters exhibit
> similar, and in many cases, improved (better) performance. Additionally, it
> is my scientific opinion that you and others should have compared the
> performance of fractal geometry antennas with other geometry antennas where
> they are resonant at the same frequency. In doing so, it is my scientific
> opinion that you would have recognized that the resonant performance of the
> fractal geometry antennas is not unique to the fractal geometry antennas.
> >>>>
>
> That was a summary of my scientific opinions and my understanding of our
> scientific disagreement. If you disagree with my scientific opinions, I
> would be pleased to debate them as you feel appropriate.
>
> Regards,
>
> Steve VE9SRB

Bravo! This retort would have given Perry Mason a hard on. A summary
of scientific opinion that should rate two thumbs up at the next great
frectal debate. Your restraint against such goofball and paranoid
accusations deserves special mention.

Myself, I would have told the little antenna weasel to bite me, but I
don't have to protect my image being I only make antennas for myself.
Everyone already knows I'm an asshole. Being I are one, I know how to
deal with other assholes in an ugly and efficient manner. But your
retort should have him squirming on the hook for a while. He'll be
trying to find a way to accuse you of having the wrong opinion, and

that you should cease and desist at once. I had thought in the past few months that he was showing improvement, and that surely his recommended thorazine therapy was paying off. But crap, I was wrong. He's just as paranoid and goofy as ever. He's been spitting the pills out again while the nurses aren't looking. MK

3675. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 22:55:37 UTC
From: k1bqt@aol.com
Message-ID: <20021202175537.27831.00008906@mb-mf.aol.com>
Source record: 130214

>Myself, I would have told the little antenna weasel to bite me...<

That's exactly what Steve did, he just used scientific notation to do it.

Rick K1BQT

3676. Re: Fractal Geometry and Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 22:56:36 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <CyRG9.3371$mj2.442255@news20.bellglobal.com>
Source record: 130216

"J. B. Wood" referenced:
> J.P. Gianvitorrio & Y. Rahmat-Samii,
> "Fractal Antennas: A Novel Antenna
> Miniaturization Technique,"
> IEEE Antennas and Propagation,
> Vol. 44 No.1, pp 20-36, Feb. 2002.

"Richard Clark"
> Given the very limited circulation of this paper,
> and even more limited availability following its
> publication...

About 32 seconds*...
www.ee.ucla.edu/~johng/research/fractals/fractal_antenna_APMAG.pdf
*Time it took me to find it, including the misspelling of 'Gianvittorio'.

Lots more material...
www.ee.ucla.edu/~antlab/ARAMHTML/john.htm

www.Google.com
www.Google.com
www.Google.com
www.Google.com
www.Google.com
www.Google.com
www.Google.com
www.Google.com
www.Google.com
!!!!!!!!!!!!!!!!!!!!

3677. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 22:58:15 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asgoi1$q2u$1@slb0.atl.mindspring.net>
Source record: 130215

Steve:

[snip]
"VE9SRB" <srbest@att.net> wrote in message
news:_1MG9.39883$hK4.3552422@bgtnsc05-news.ops.worldnet.att.net...
>
> "Doz" <doz@postmaster.com> wrote in message
> news:3deb8c28$0$4784$fa0fcedb@lovejoy.zen.co.uk...
> > Chicken!!
> >
> You missed the point.
[snip]

I think everyone is missing The Point!

The Point *is* that Dr. Cohen promised to produce a fractal antenna design
by the end of October that
is optimum under the Figure of Merit which he demanded from you on *very*
short notice, and that you
so graciously supplied at his request. The Point is he didn't deliver, as
usual!

The "fractal braggart" has failed again and has not delivered said optimal
design! That is The Point!

The threat of litigation is just more obfuscation on the part of Cohen...
reminds me of Humpty Dumpty.

I just wish Cohen had publicly appologized to me after he "trashed" me and
offended my
technical reputation publicly on the NG. But then none of his arguments
ever has symmetry!

For those who don't recall some of Humpty Dumpty's obfuscation and fussiness
about the meanings
of words compare Cohen with Dumpty... [scientific reputation indeed!]

--
"When I use a word", Humpty Dumpty said, in a rather scornful tone,
"it means just what I choose it to mean, neither more nor less."

"The question is", said Alice, "whether you can make words mean so many
different things."

"The question is", said Humpty Dumpty, "Who is to be master: - that's all."

Lewis Carol, "Alice in Wonderland - The Turtle soup"
--

I am afraid that Dr. Cohen will never be Master, as long as he "sits on that wall", heh, heh...

--
Peter K1PO
Indialantic By-the-Sea, FL

3678. Re: Fractal Geometry and Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 23:02:58 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <BERG9.3375$mj2.444202@news20.bellglobal.com>
Source record: 130217

"J. Harvey"
> www.ee.ucla.edu<snip>

Uh oh... I just realized that I might have set off an "IP" (sic) fight
between UCLA and Boston Public. He he he...

3679. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 23:07:37 UTC
From: k1bqt@aol.com
Message-ID: <20021202180737.27831.00008907@mb-mf.aol.com>
Source record: 130218

>...you are not motivated by issues of science and innovation.<

Bad troll! Bad bad troll! Go to your room.

Rick K1BQT

3680. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 23:44:10 UTC
From: fractenna@aol.com
Message-ID: <20021202184410.06773.00000144@mb-dd.aol.com>
Source record: 130069

>
>Steve:
>
>[snip]
>"VE9SRB" <srbest@att.net> wrote in message
>news:_1MG9.39883$hK4.3552422@bgtnsc05-news.ops.worldnet.att.net...
>>
>> "Doz" <doz@postmaster.com> wrote in message
>> news:3deb8c28$0$4784$fa0fcedb@lovejoy.zen.co.uk...
>> > Chicken!!
>> >
>> You missed the point.
>[snip]
>
>I think everyone is missing The Point!
>
>The Point *is* that Dr. Cohen promised to produce a fractal antenna design
>by the end of October that
>is optimum under the Figure of Merit which he demanded from you on *very*
>short notice, and that you
>so graciously supplied at his request. The Point is he didn't deliver, as
>usual!
>
>The "fractal braggart" has failed again and has not delivered said optimal
>design! That is The Point!
>
>The threat of litigation is just more obfuscation on the part of Cohen...
>reminds me of Humpty Dumpty.
>
>I just wish Cohen had publicly appologized to me after he "trashed" me and
>offended my
>technical reputation publicly on the NG. But then none of his arguments
>ever has symmetry!
>
>For those who don't recall some of Humpty Dumpty's obfuscation and fussiness
>about the meanings
>of words compare Cohen with Dumpty... [scientific reputation indeed!]
>
>--
>"When I use a word", Humpty Dumpty said, in a rather scornful tone,
>"it means just what I choose it to mean, neither more nor less."
>
>"The question is", said Alice, "whether you can make words mean so many
>different things."

>
>"The question is", said Humpty Dumpty, "Who is to be master: - that's all."
>
>Lewis Carol, "Alice in Wonderland - The Turtle soup"
>--
>
>I am afraid that Dr. Cohen will never be Master, as long as he "sits on that
>wall", heh, heh...
>
>--
>Peter K1PO
>Indialantic By-the-Sea, FL

Hey Peter--

Why don't you level with the good folks here, tell them who you work for, and who you represent.

It was pretty eye opening.

73,
Chip N1IR

3681. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 23:48:43 UTC
From: fractenna@aol.com
Message-ID: <20021202184843.06773.00000145@mb-dd.aol.com>
Source record: 130070

>>The Point *is* that Dr. Cohen promised to produce a fractal antenna design
>>by the end of October that
>>is optimum under the Figure of Merit which he demanded from you on *very*
>>short notice, and that you
>>so graciously supplied at his request. The Point is he didn't deliver, as
>>usual!
>>
>>The "fractal braggart" has failed again and has not delivered said optimal
>>design! That is The Point!
>>

The critique has been finished for two weeks. It is being edited. I will let you speculate on who and why it is being edited. Let's just say I have zero exposure ,discuss facts, and document them.

73,
Chip N1IR

3682. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 23:52:38 UTC
From: k1bqt@aol.com
Message-ID: <20021202185238.01146.00008503@mb-mk.aol.com>
Source record: 130071

>Please cite a link or publication where I in any way claimed to re-write Maxwell's equations.<

Geez, Chip, not everything that happens in this world is "about you". In the first place, I was responding to Art (not you) and making the point that many "innovations" (having nothing to do with you) were subject to the probings of the newsgroup. Being a degreed physicist, I suspect you'd be among the last to attempt to reinvent Maxwell. Would you?

Rick K1BQT

3683. Antenna Placement

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 23:55:19 UTC
From: Ironhead <slipkid@kwiknet.net>
Message-ID: <GpSG9.9$jRSf.3145899@news2.randori.com>
Source record: 130073

How far apart should two vertical antennas be placed. I have an HF antenna already in place but need to put up a 2M antenna too. Any help is appreciated.

3684. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-02 23:55:46 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asgru1$6qe$1@sparta.btinternet.com>
Source record: 130072

"Off with their heads" said the Queen of Hearts.

3685. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 00:14:29 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <FHSG9.3401$mj2.464700@news20.bellglobal.com>
Source record: 130075

"Richard Harrison"
> When a conducting sheet is impaled on a wire,
> its skin effect blocks penetration if no hole is
> left open for the current to squeeze through.
> Current must transfer from the wire to the
> sheet`s surface to get from the wire on one
> side to the wire on the other side.

Like those plates (on the ropes) used to keep rats from boarding ships.

(Rats as an analogy for RF. What next ?)

3686. Re: Fractal Geometry and Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 00:21:17 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <saunuuc2ro74elrna7fqbbr54jkle6k7da@4ax.com>
Source record: 130074

On Mon, 2 Dec 2002 17:56:36 -0500, "J. Harvey"
<JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote:

>"J. B. Wood" referenced:
>> J.P. Gianvitorrio & Y. Rahmat-Samii,
>> "Fractal Antennas: A Novel Antenna
>> Miniaturization Technique,"
>> IEEE Antennas and Propagation,
>> Vol. 44 No.1, pp 20-36, Feb. 2002.
>
>"Richard Clark"
>> Given the very limited circulation of this paper,
>> and even more limited availability following its
>> publication...
>
>About 32 seconds*...
>www.ee.ucla.edu/~johng/research/fractals/fractal_antenna_APMAG.pdf
>*Time it took me to find it, including the misspelling of 'Gianvittorio'.
>
>Lots more material...
>www.ee.ucla.edu/~antlab/ARAMHTML/john.htm
>
>www.Google.com
>www.Google.com
>www.Google.com
>www.Google.com
>www.Google.com
>www.Google.com
>www.Google.com
>www.Google.com
>www.Google.com
>!!!!!!!!!!!!!!!!!!!!!
>

Hi Jeff,

Thanx for the effort.

73's
Richard Clark, KB7QHC

3687. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 00:24:01 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <BQSG9.3408$mj2.468470@news20.bellglobal.com>
Source record: 130076

"Reg Edwards"
> Energy becomes detached from the near-field with
> increasing distance from the antenna because the
> near-field doesn't have sufficient time to fully
> collapse back upon itself during the radio-frequency
> cycle. The field velocity is restricted to that of light.
> The energy detached gets lost in space and changes
> its name to Far Field.

I (safely) assume that the near-field expanded at no more than the speed of
light. Why can't it collapse at roughly the same speed ?

> There must be a mechanical analogy somewhere.

A cast iron crankshaft at twice the rev limit ?

3688. Re: Where to put the wire antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 00:34:33 UTC
From: W4WNT <w4wnt@carolina.rr.com>
Message-ID: <t_SG9.44078$ID2.3359067@twister.southeast.rr.com>
Source record: 130077

Hi Buddy,

There are several commercial verticals that are designed for QRP use but will work up to 100w very easily. They have the advantage of being put up and taken down in a few minutes. With an antenna analyzer you can set one of these up in no time. They pack away into a small space when you're done.

Another alternative - nurseries will sell large trees and plant them for you. You can stick them where they'll do the most good as antenna supports.

Good Luck,

Bill, W4WNT

"Buddy" <noway@jose.com> wrote in message news:B7EF04C60FE692C3.14D2470A7801E7D8.9543C0DDD30D3338@lp.airnews.net...
> I'm real close to getting my general ticket. The antenna question keeps
> challenging me though. I don't have a lot of money to spend or space to
> string up a dipole in its ideal position. No trees here and a wife who
> demands an unseen approach. I can't seem to find any real good
> information which addresses my problem. I'll probably buy a decent
> vertical or Sigma V when I can get the bucks together.
>
> I'm considering a G5RV or Carolina Windom since they seem to be the
> best bang for the buck. I have a fairly good size house with 70 ft. of
> straight eaves running on one side. Wouldn't RF be a problem mounting
> under the eaves though?
>
> How about over the roof? Like an inverted V? I've got plenty of that.
> I could lay it on the roof with no problem. Is this a good idea? What
> kind of problems could I experience?
>
> Finally I could go around the perimeter of the wood fence. It would take
> one hard 90 degree turn. It would only be about 6 feet off the ground
> though.
>
> Any help is appreciated.
>
>
>
>
>
>

3689. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 01:03:50 UTC
From: "William H. O'Hara, III" <whoohara@yahoo.com>
Message-ID: <Xns92D8CC1D89E8CAlphaCentauriAAAHAWK@65.100.3.61>
Source record: 130078

> Richard this thread is broadbanding which pointed to broadening
> the frquency span of a monobander, this I did by capacitive coupling
> of the feed to the driven element.

Could you share some light on this? I'm trying to grasp
how to make a broadbanded yagi(perhaps) for perhaps 2.4 to
2.5. Or How does one design a TV antenna(I want to get
channel 38 and channel 56 in for once and all)?

Another question that I have been wondering about. How does
the surface area of the elements effect the results? How
does a solid element versus a hollow cyclinder affect the
equation?

bill
kb1IUB

3690. Re: Fractal Geometry and Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 01:10:23 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <fmvnuugo0b70e1pooiea6s77eotacnt5sv@4ax.com>
Source record: 130079

On Mon, 02 Dec 2002 18:54:29 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

>You can kick start your reference with one particular observation:
>>>> 'fractals do no better than other small/broadband/frequency
>>>>independent/antennas'.
>>>>
>>>>The answer is 'yes'.
>Does your reference respond to the statement and its affirmation?
>
>No? What's the point if it cannot cope with something this
>fundamental?
>
>Yes? What's left to say?
>
>73's
>Richard Clark, KB7QHC

Hi All,

Given Jeff's lead to the source document, it would seem the answer is No, it does not respond to the statement at all (or is deeply buried - same thing). In all practicality, not very useful at all.

It does, however, provide an alternative coverage that supports many of the issues I examined at my pages. This researcher may even come to describing a "general" formula, a work in progress that can already be found at my site. I will admit this work is stale and some 3 years old. Now that fractals have fallen on hard times, I see no need to complete it (I will leave that to a doctoral candidate so that there is more paper ballast available for the library stacks).

Further, it is becoming increasingly obvious, through the repetition of examples that fail to reveal any new geometries in the past 8 years, that this "science" is dreadfully in-bred and constitutes nothing other than book reports on prior work; or, at best, class construction projects. That it duplicates work I have done in years past also begs the question of what constitutes research when it has all been done before, over and over and over. That it fails to encompass the small scope and range of forms I have committed to my pages reveals a poverty of results from research in these past few years.

Others might not have to fight the yawns reading this - their mileage may vary as the saying goes.

73's
Richard Clark, KB7QHC

3691. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 01:29:47 UTC
From: fractenna@aol.com
Message-ID: <20021202202947.24009.00000249@mb-cv.aol.com>
Source record: 130080

>Being a degreed physicist, I suspect you'd be among the last to
>attempt to reinvent Maxwell. Would you?
>
>Rick K1BQT
>

The best way to make sure you understand something is to question it. Then, when you find that Maxwell, Gauss, Ampere, and others are right, you become humbled by their insight.

I am humbled daily.

73,
Chip N1IR

3692. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 02:29:08 UTC
From: tdonaly@aol.com
Message-ID: <20021202212908.23905.00000147@mb-cv.aol.com>
Source record: 130081

Mark wrote,
>
>OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
>news:<3DEB830A.1030203@ieee.org>...
>> Roy Lewallen wrote:
>> > ... your truck
>> > would be right in place in any of the rural areas (provided it's
>> > properly tricked out with a populated gun rack and NRA sticker).
>>
>> You know, Roy, that's one thing that has changed since I was a boy.
>> I don't see many populated gun racks anymore. It's just too easy
>> to steal the guns. I do, however, have an NRA sticker and a bumper
>> sticker that says, "MY PRESIDENT IS CHARLTON HESTON".
>
>I never was much of the "gun rack" type. I once had a truck with a gun
>rack, but I kept a huge 3-4 ft long adjustable wrench on it. It got as
>much attention as most guns, and nearly as deadly if I were to plonk
>someone over the head with it. If I have guns, I hide them. I like to
>be sneaky. Gives me that "Clint Eastwood" edge. Kind of like having
>the sun behind you in a shootout. I rarely have guns unless I'm going
>out of town to the boonies somewhere. I'm not going to bother getting
>a permit. I don't need a permit to carry a shotgun. Or a handgun
>either as long as I'm traveling out of the county.
>MK
>
I guess in a place like Texas a man needs a gun in order to make sure he
sees his next birthday. It's different in other parts of the U.S. where people

are more on the civilized side.
I used to do a lot of hunting when I was young. I'm not bragging when I say
that I bagged more stop signs and tin cans than anyone in Tulare county in
the late '50's. And all I had was a single shot .22. Other people shot
rabbits,
dove, etc. Those critters had nothing to fear from me, though. I couldn't hit
them, anyway. I was always after bigger and bigger road signs.
Have you ever shot up a road sign, Mark? Don't lie.
73,
Tom Donaly, KA6RUH

3693. Re: receive-only antenna for FT-920

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 02:42:01 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <UvicnTfvM9kdhHGgXTWc3w@comcast.com>
Source record: 130082

Benson,

I have done the wire behind the cabinet bit. Work pretty good at night. 50 - 100 feet of wire out the window, or up in the attic is better though.

Tam
"Benson Wills" <blackhole@doozy.us> wrote in message news:blackhole-0CEAC5.14363402122002@corp.supernews.com...
> I'm getting a FT-920 for Christmas and will be using it for just SWL of
> the broadcast bands until spring when I can get a 6M antenna up. I
> understand that the 920 has a RCA jack for a receive-only antenna. Short
> of stringing a piece of wire across the room, is there something else
> that works better for inside use, and doesn't cost a fortune?
>
> --
> E-mail replies: change 'blackhole' to 'usenet3'

3694. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 02:44:21 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DEC28C7.D01C125F@townsqr.com>
Source record: 130083

Reg Edwards wrote:

> Dick,
>
> You don't say what conclusions you have drawn

Only a simple one, that is, for a dipole to be an effective radiator the feedpoint needs to be elevated while it makes much less difference about the ends. Found that out the hard way long ago at age 14 with a new Novice ticket. Not exactly rocket science and for sure not a full investigation of the electromagnetics involved, either.

> Have you considered the
> radiation pattern may change adversely when switching between Inverted-V and
> V antennas?
>
> Have you considered dependency on ground conductivity and that opposite
> effects may be observed with high resistance soil. It depends on HOW the
> antenna is coupled to ground loss resistance - inductive or capacitive -
> via the antenna middle or its ends.
>
> Radiation resistance depends on the degree of coupling between antenna and
> ground. But this behaviour throws no light on what parts of an antenna may
> radiate more than others, if any part radiates at all.
>
> For calculating purposes an image antenna is sometimes supposed to exist
> below ground. Its imaginary induced currents and voltages can be calculated
> along with the distant fields they produce. Combined with the field from the
> real antenna the resultant computed far field is correct.
>
> Yet the image antenna itself is non-existent. Does the image really
> radiate? What a computer program thinks it does may bear no resemblance to
> what happens in the real world. Another program may be brainwashed into
> thinking the distant field is the resultant of the direct wave and its
> reflection from the surface of the ground. If the answers are correct who
> cares. But be on your guard when attempting to extrapolate from what the
> computer thinks it is doing to conclusions otherwise unwarranted.
>
> Would you infer radiation occurs mostly from the ends of a dipole if
> greatest loss occurs when the dipole ends are nearest to very high
> resistance soil? (Is the soil loss resistance now better matched to the
> generator?)
>
> With a near perfect ground efficiency won't change with height of the apex
> of the V. That will certainly tell you nothing about what parts do the

> radiating.
>
> I agree, as a rule of thumb, if you have a V above ordinary sorts of ground
> then invert it with the apex at the top.
>
> ============================
>
> PS: No part of an antenna radiates. The radiation field is zero on
> conductor surfaces. Energy becomes detached from the near-field with
> increasing distance from the antenna because the near-field doesn't have
> sufficient time to fully collapse back upon itself during the
> radio-frequency cycle. The field velocity is restricted to that of light.
> The energy detached gets lost in space and changes its name to Far Field.
>
> There must be a mechanical analogy somewhere.
> ---
> Reg, G4FGQ
>
> ==============================
>
> Dick wrote -
> > I think we all know where the high current point is located.
> >
> > You may draw whatever conclusions you wish from that, as I have.

So you dangled a worm and I swam by..... :-)

Dick

3695. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 02:58:47 UTC
From: k1bqt@aol.com
Message-ID: <20021202215847.05569.00000115@mb-df.aol.com>
Source record: 130084

>I am humbled daily.<

Sigh...

Rick K1BQT

3696. Re: Fractal Geometry and Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 03:14:11 UTC
From: k3bu@aol.com
Message-ID: <20021202221411.05418.00006573@mb-mq.aol.com>
Source record: 130085

>"J. B. Wood" referenced:
>> J.P. Gianvitorrio & Y. Rahmat-Samii,
>> "Fractal Antennas: A Novel Antenna
>> Miniaturization Technique,"
>> IEEE Antennas and Propagation,
>> Vol. 44 No.1, pp 20-36, Feb. 2002.
>
>"Richard Clark"
>> Given the very limited circulation of this paper,
>> and even more limited availability following its
>> publication...
>
>About 32 seconds*...
>www.ee.ucla.edu/~johng/research/fractals/fractal_antenna_APMAG.pdf
>*Time it took me to find it, including the misspelling of 'Gianvittorio'.
>
>Lots more material...
>www.ee.ucla.edu/~antlab/ARAMHTML/john.htm
>

from there.....
>>>Gianvittorio, John P. and Yahya Rahmat-Samii. "Fractal Patch Antennas:
Miniaturizing Resonant Patches". IEEE International Symposium on Antennas &
Propagation. Boston, Massachusetts. July, 2001. (presentation)<<<

Looks like fractalized version of Yagi antennas may be called "Yahya" after
the inventor?

Bada BUm

3697. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 03:31:29 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <ash8ih$p6l$1@helle.btinternet.com>
Source record: 130086

> The best way to make sure you understand something is to question it.
Then,
> when you find that Maxwell, Gauss, Ampere, and others are right, you
become
> humbled by their insight.

==========

Poppycock ! Who are you/we to judge? Would they consider us to be their
peers?

That you are unaware Heaviside over-rode Maxwell is an indication of *your*
level of understanding.

Name-dropping will get you nowhere except backwards.

3698. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 03:48:15 UTC
From: tdonaly@aol.com
Message-ID: <20021202224815.27987.00000189@mb-cf.aol.com>
Source record: 130087

>
>> The best way to make sure you understand something is to question it.
>Then,
>> when you find that Maxwell, Gauss, Ampere, and others are right, you
>become
>> humbled by their insight.
>
>==========
>
>Poppycock ! Who are you/we to judge? Would they consider us to be their
>peers?
>
>That you are unaware Heaviside over-rode Maxwell is an indication of *your*
>level of understanding.
>
>Name-dropping will get you nowhere except backwards.
>

As long as you mentioned Heaviside, Reg, you might include
Josiah Willard Gibbs, and, of course the genius behind him,
the Sanskrit scholar and mathematician, Hermann Grassmann.
73,
Tom Donaly, KA6RUH

3699. Re: Broarder bandwidth

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 04:14:49 UTC
From: richardharrison@webtv.net
Message-ID: <13399-3DEC2FB9-918@storefull-2312.public.lawson.webtv.net>
Source record: 130089

Bill, KB1UB wrote:
"Could you shed some light on this (broadbanding)?"

Art Unwin may explain his broadbanding system.

Arnold B. Bailey in "TV and Other Receiving Antennas" about doubles the bandwidth of a 200 MHz dipole by increasing its diameter from 0.5 in to 2.5 in. This shortens the dipole from 25.4 inches to 22.7 inches. 200-MHz feedpoint resistance also drops from 49 ohms to 37 ohms from the increased diameter.

Broadbanding a yagi is complicated because more variables are involved. Perhaps the ARRL Antenna Book will help. You can choose the characteristics you want to optimize. They don`t all peak at the same place.

L.B. Cebik wrote the "Log Periodic Arrays", Chapter 10, in the ARRL Antenna Book (19th edition). For more information visit his weebsite. Just search on his call sign, W4RNL. Click on "Tales and Technicals". Then choose "Log Periodics".

TV Chan. 39 is 620-626 MHz. Chan. 56 is 722-728 MHz. Log Periodics scale to TV frequencies from H-F. The UHF TV version may be only 1% of the H-F size.

Solid elements don`t help much with strength. Nerarly all the stress is in the outer "fibers" of an antenna rod, and nearly all the r-f current is right on the surface of the antenna element. Tubes make the best use of the antenna material at UHF.

Best regards, Richard Harrison, KB5WZI

3700. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 04:33:20 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3dec38a4_1@news1.prserv.net>
Source record: 130088

Mark:

Unfortunately, you need a real professional to address this problem. I say this because the suggestions Gary makes will be typical of what you get from volunteer help. His problem analysis is correct, you need the correct antennas in the right locations, but the old wives tale about hanging one upside down doesn't help much. The additional scattered signal you may get is unpredictable and results from uncontrolled pattern distortion.

You also misunderstand the effects of CTCSS. Those other signals are still there, and will sometimes cover up your HTs even though you no longer hear them. Push the defeat switch when a unit doesn't answer, and see if there isn't another strong signal already there.

Antennas are made with engineered amounts of "downtilt" which is what you need here for the top. Several manufacturers make downtilt antennas for 155 MHz, but none are cheap. For the bottom, you need a professional to look at the requirements and "lay of the land". You probably need a "keyhole" or some other shaped pattern antenna for the bottom, but that is a WAG. You need to find a wealthy benefactor to fund some system design engineering to get a properly working system. Manufacturers never did that very well, and seem to have given it up altogether these days.

--
Crazy George
Retired telecommunications engineer back when real radios glowed in the dark and whined when you pushed the mike button.
Remove NO and SPAM from return address

"John Smith" <someone@microsoft.com> wrote in message
news:3deb8dfb$1_3@news.newsgroups.com...
> I am a volunteer for a local Ski Patrol. We are using mostly Motorola
> handheld FM radio's in the 155mhz range (about 100 of them). We have a
base
> station at the top of the mountain and at the bottom. This year we have
> added CTCSS and now can screen out all of the annoying other rescue squads
> that used to dominate us (at the top of the mountain). However, we STILL
> have not solved our poor coverage problem. Specifically, we have dead
zones
> all over the mountain where we cannot communicate handheld to handheld or
> handheld to the top or bottom. Sometimes, we can't communicate well even
> from the top to the bottom. In addition, we have a "back side" of the
> mountain, where we can only communicate from the backside to the top, and
> where we would like to be able to talk to the base (at the very bottom).
>
> My question is, would a repeater help this situation the most? Or maybe

> better (higher) antenna's? Would it be possible (practical) to have a
> repeater at the top AND at the bottom? Would something like the Vertex
> VXR1000 connected to our base statations (which are really just mobils
with
> transformers) be of any practical use?
>
> I would appreciate any advice, especially on how to do this on a
shoe-string
> (we are a volunteer organization).
>
> I've posted the question in the equipment group, but thought you guys
might
> suggest antenna's instead.
>
> Thanks,
>
> Mark Rees
> (Using someone elses account)
> markrees@mindspring.com
>
>
>
>
>
> ----------== Posted via Newsfeed.Com - Uncensored Usenet News
==----------
> http://www.newsfeed.com The #1 Newsgroup Service in the World!
> -----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers
=-----

3701. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 04:59:32 UTC
From: Rick Karlquist <richard@karlquist.remove.this.com>
Message-ID: <USWG9.7645$pN3.102@sccrnsc03>
Source record: 130090

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0212020219.2f572932@posting.google.com...
> for beverages. And if I ran a beverage, I doubt I would want to place
> it as high as I could get it.
> 5-10 ft off the ground is plenty. You are talking 470 ft of wire for a
> 1/2 wave just at 1000 kc.
> Nearly 1000 ft for a full wave beverage. And then it needs to be in a
> straight line to function properly. I have a funny feeling this may a

Actually, they work better (at least at my QTH) at 2-3 ft off the
ground. Amazingly, my 520 ft beverages work even down to 1000
kHz and below. I picked up WCBS in NYC on 880 kHz from the
west coast with one of my beverages. My ground conductivity is
so high that 1300 ft beverages are no better than 520 ft beverages.
In any event, beverages blow the doors off of loops, which blow
the doors off of random wires of any description.

Rick N6RK

3702. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 05:44:01 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <j1gouucl9pdgjcl8u76e8uh4h7gbg13hjo@4ax.com>
Source record: 130091

On Tue, 03 Dec 2002 04:59:32 GMT, "Rick Karlquist"
<richard@karlquist.remove.this.com> wrote:
>Actually, they work better (at least at my QTH) at 2-3 ft off the
>ground. Amazingly, my 520 ft beverages work even down to 1000
>kHz and below. I picked up WCBS in NYC on 880 kHz from the
>west coast with one of my beverages. My ground conductivity is
>so high that 1300 ft beverages are no better than 520 ft beverages.
>In any event, beverages blow the doors off of loops, which blow
>the doors off of random wires of any description.
>
>Rick N6RK
>

Hi Rick,

When I was a teenager in Colorado Springs (mid 60's), I could get both coasts (SF & NYC clear channels) with a 50 foot antenna 5 feet off the ground strung up along a fence. My receiver was a Navy surplus RBB-1 (there is also the VLF band RBA and HF band RBC) which tuned AM in either two or three bands. The dial had a 10KHz resolution that was a quarter inch wide. That sucker could sub for an anchor with a bulk of 24" X 24" X 24." Add to that its power supply (at 12" X 24" X 24"), then the 1" thick lead with a couple dozen wires between them and you get my drift. I also used to listen Wolfman Jack out of XELO, Del Rio Texas (or maybe it was XERB).

73's
Richard Clark, KB7QHC

3703. Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 06:01:23 UTC
From: I Smac <Smac61yourpanties@hotmail.com>
Message-ID: <OVidna0Ldu0w1XGgXTWc3Q@comcast.com>
Source record: 130092
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Wattmeter reads 150W forward. 50W reflected.

Power OUT OF TRANSMITTER = ???

a) 100W
b) 150W
c) other

3704. Re: Antenna Placement

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 06:25:07 UTC
From: 'Doc <ltdoc@yahoo.com>
Message-ID: <3DEC4E43.1050309@yahoo.com>
Source record: 130093

Ironhead,
Ideally, as far as possible. From there, the distance
usually winds up being what's most convenient...
'Doc

3705. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 07:03:59 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212022303.689c9279@posting.google.com>
Source record: 130094

<Jimnn7k@reno.rmci.net> wrote in message news:<XDyG9.21534$EY.1407@fe01>...
> Balderdash-- in rural locations, moving your antenna as little as 1/4
> wavelength will take a signal from MINIMUM to MAXIMUM ! why? because of
> different wave fronts caused by propagation cause the various recieved
> signals to ADD, or CANCEL the recieved signal. in fact, if you are going
> down a road , listening to your radio , at night, you can MEASUER THE
> WAVELENGTH (reciprical of the frequency) between the NULLS in the signals
> (1/2 wavelength points)!! go for the most antenna you can get, but doel
> (or more feeds itno the pattern would help the most! jim nn7k

I did a few quick comparisons between a 16 inch loop, and my "T"
vertical, which is about 42 ft tall, with a 120 ft long flat top wire.
It's pretty hot on MW. The radio was my ic-706mk2g. I'll let the
recordings speak for themselves.
You can click on the URl for the sound files, and your media player
"should" bring them right up and start playing. Hopefully anyway...

I did three tests, on three different frequencies, at different times
in the evening. I'm in Houston, and used mainly San Antonio as the
"target" city. "good 200 miles away" I recorded each test. I did
compress the audio greatly to save d/l time, but the audio is still
good enough to tell which is best. The files are pretty small and will
d/l quickly. They were huge files in the original sample rate and
format...I will "narrate" each test, so you will know which antenna
was used, and the exact times I switched. You can use the counter in
the media player to keep track of the time.

Test #1 was at about 7:30 PM on 550 kc.
http://web.wt.net/~nm5k/mwtest1.mpeg
"Time in seconds"
0-13 -----loop
13-26 -----wire
26-38 -----loop
At 38 seconds I nulled the station, so you can hear the null.
46 -----loop, back pointed to the station
57-69 -----wire
69-end -----loop

Test #2 was at about 8:00 PM on 670 kc.
http://web.wt.net/~nm5k/mwtest2.mpeg
"Time in seconds"
0-11 -----loop
11-23 -----wire
At 37 seconds I nulled the station
46 -----back pointed to the station

55-67 -----wire
67-end -----loop

Test #3 was at about 9:00 PM on 570 kc. Multiple stations on this freq...
http://web.wt.net/~nm5k/mwtest3.mpeg
"Time in seconds"
0-10 ----loop
10-23 ----wire
23-37 ----loop
37-48 ----wire
At 62 seconds, I turn the loop 90 degrees to get a totally different station.
At 74, I turned back to the first station.
85 ----turned back to 2nd station again
91 ----back to the first

Anyway, you all be the judge. Myself, I prefer the 16 inch loop anyday over a long high non directional wire. Yes, it's quite possible beverages or whatever could beat the loop, but you are talking a lot more work and wire. And it still wouldn't null as precisely, unless I had beverages in every direction. MK

http://web.wt.net/~nm5k/

3706. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 07:13:35 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <ashlio$bu4$1@slb9.atl.mindspring.net>
Source record: 130095

Dr. Cohen:

[snip]
> Hey Peter--
>
> Why don't you level with the good folks here, tell them who you work for,
and
> who you represent.
>
> It was pretty eye opening.
>
> 73,
> Chip N1IR
[snip]

Heh, heh... I might have known you would have your "Perry Mason" and your
very own private eye find me out.
How much did you spend to get that information? I hope it was expensive!

Well, er... Ahem... I guess you caught me, eh?

Now the whole NG will wonder, just who is Peter K1PO and who does he work
for? And... who does he represent?

Chip, my eager boyish braggart [Scientist?], I have nothing to hide... it is
with my wholehearted permission, and without
prejudice, that I hereby beseech you to tell us all the details of what you
have found out about me!

Aside: This should be good, because... AFAIK... according to my dear wife,
I work for myself, and I represent myself.

[Chip: FYI... I am a self employed electro-technology consultant, expert in
mathematical methods of optimization,
published textbook author, definitely not a Scientist! But I know a
"Scientific Scam" surrounded by "BS" when I see it, and...
unlike the genteel Dr. Steve Best, I'm not afraid to call a spade a spade?
Want the truth? Wanna hire me? Hey, my fees
are kinda steep! But... I do get results! Object oriented genetic optimzer
indeed! No? Not interested? What?]

Heh, heh...

--
Peter K1PO
Indialantic By-the-Sea, FL

3707. tempest infos request

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 08:15:23 UTC
From: vincent <v@tuxfamily.org>
Message-ID: <pan.2002.12.03.08.15.23.143031@tuxfamily.org>
Source record: 130096

hello guys,

have you got some infos or links about the tempest technique .

I'd like to know how it works.

thx in advance

viny

3708. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 08:40:13 UTC
From: Eric Oyen - N7ZZT <eric.oyen@cox.net>
Message-ID: <pan.2002.12.03.01.41.19.554.9483@cox.net>
Source record: 130097

ok, lets refine this a bit....

In article <uunlrgs59laq0e@corp.supernews.com>, "Roy Lewallen"
<w7el@eznec.com> wrote:

> EZNEC is a commercial product which, as you gathered, operates only
> under Windows. The reason for this is simple: the customer base for
thats a given...

> Macintosh, Linux, and other operating systems is simply too small to
> justify the time required to develop versions for these systems. Some
really? you think 30 million plus users of linux is too small a market share (and growing by 4 million anually)? as for mac, et al, they aren't as small a market share as you would think, given the amount of space dedicated to mac product lines at places like Fry's electronics, Best Buy, Circuit city, and others... In fact, some of the software and products for these systems (such as linux, mac osX) are available at staples and office max! I'm sorry, but you are writing off a substantial market share based on an assumption.

> people who do want to use operating systems other than Windows and at
> the same time have access to some of the richness of applications
> available for Windows use emulators to run Windows software. Although I
actually, a lot of apps have migrated to native linux/OSX modes.. AND, it isn't that hard to develope for linux, etc because its all open source (all those eyes looking for bugs free of charge).

> can't guarantee that EZNEC will run on a particular system with an
> emulator, I've gotten a number of reports of success using it with
> emulators.
depends on the system. some of the newer linux distro's work nicely (especially if you have a nice fast/powerful cpu to back them up).

>
> I suggest you take a look at http://www.qsl.net/wb6tpu/swindex.html.
> You'll find free antenna analysis software there compiled for Linux by
> people who have done it as a labor of love. NEC-2, which is free, will
> produce the same answers as EZNEC and similar software, although with a
> somewhat more cumbersome user interface.
ah. thanks for the info.... sorry for my rant up above.

>
> Roy Lewallen, W7EL
>

DE N7ZZT (Eric Oyen)
Phoenix, Az

3709. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 08:47:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uuortgmubepsfc@corp.supernews.com>
Source record: 130098
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

a.

Roy Lewallen, W7EL

I Smac wrote:
> Wattmeter reads 150W forward. 50W reflected.
>
> Power OUT OF TRANSMITTER = ???
>
> a) 100W
> b) 150W
> c) other
>
>
>
>

3710. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 08:55:33 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <ashrhvkiv1@slb6.atl.mindspring.net>
Source record: 130099

Richard:

[snip]
"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:23317-3DEB795D-700@storefull-2317.public.lawson.webtv.net...
> Alan Fowler wrote:
> "Now does the current flow up to the sheet, flow out over one side of
> the sheet, across the edge, back down the other side then continue along
> the wire---?"
>
> Exactly. When a conducting sheet is impaled on a wire, its skin effect
> blocks penetration if no hole is left open for the current to squeeze
> through. Current must transfer from the wire to the sheet`s surface to
> get from the wire on one side to the wire on the other side. It cannot
> take the short-cut directly through the conducting sheet or through the
> wire. Skin effect blocks direct passage.
> Best regards, Richard Harrison, KB5WZI
[snip]

Impaling a conducting sheet on a wire one way of building an "Elizabethan
Collar Current Balun".

--
Peter K1PO
Indialantic By-the-Sea, FL

3711. Re: Wanted info on 144/440 Yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 10:20:42 UTC
From: Troy VK2HXY <**vk2hxy@hotmail.com>
Message-ID: <jy%G9.225$Sd.10504@nnrp1.ozemail.com.au>
Source record: 130100

Thanks for the very informative replies gentlemen, warmest regards to you
and yours.

Merry Christmas, stay safe

VK2HXY
Troy
Sydney, Australia

"Wes Stewart" <n7ws@nowhere.com> wrote in message
news:2spmuu435uqktqtsj8ledua3l1ohpdtndu@4ax.com...
> On Sun, 1 Dec 2002 22:23:19 +1100, "Troy VK2HXY"
> <**vk2hxy@hotmail.com> wrote:
>
> |Hi there people, I am new to the hobby, just recently (3 days) got my
> |license and am now looking to homebrew my own antennas. I suppose that's
> |what makes this hobby so interesting and enjoyable, I love a good
challenge.
>
> Congratulations and welcome.
>
> |
> |I am looking for information on how to build both a 70Cm and 2 M beam
> |antenna. Looking for good proven performers, not looking at conducting
EME,
> |but would love to be able to make some nice simplex QSO's over a fair
> |distance.
>
> Good for you. But don't rule out EME; you say you love a good
> challenge :)
>
> |
> |I have heard of Quagi antennas for 70Cm, are these worth building over a
> |normal driven element type beam, or am I best to start with the basics?
>
> The quagi was an effort to simplify the driven element and derive some
> inherent gain from it. I think it has pretty much been determined
> that both "advantages" were elusive and the design has fallen into
> disfavor.
>
> |
> |Which leads me to the next question, what's better a gamma style match or
a
> |folded dipole DE? and lastly, what's considered better, through the
boom,

> |or shielded from the boom?
>
> Forget the gamma, especially at UHF. Almost all modern designs use a
> folded-dipole or tee-matched driven element. With the greater use of
> computer modeling, designs have been developed with near 50 ohm
> feedpoint impedances which make possible directly-driven split driven
> elements.
>
> There are several element mounting possibilities:
>
> 1) Above (or below) the boom on insulators.
> 2) Above (or below) the boom using metal fasteners.
> 3) Uninsulated through the boom.
> 4) Insulated through the boom.
> 5) Non-metallic boom.
>
> Each has advantages and disadvantages but the differences are
> primarily mechanical. The more the element is changed in diameter or
> "shorted out" the more correction factor is required, but be assured
> there will be an appropriate correction factor for each case, and
> these are widely published.
>
> |
> |If someone can point me in the right direction, or if anyone has plans
> |please drop me a message at vk2hxy at hotmail dot com.
>
> Some places to start looking:
>
> http://ham.te.hik.se/homepage/sm5bsz/index.htm
>
> http://www.ifwtech.co.uk/g3sek/
>

3712. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 10:51:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uup35fta49mpc8@corp.supernews.com>
Source record: 130101

The last time I looked, the Linux PC (not server) user base was around 1% or of the Windows market, with a total of about 3 million vs. 240 million for Windows. (See for example http://www.alliedcomputing.com/default.php?news_id=50.) But regardless of whether there are 3 or 30 million Linux users out there, if they were to buy EZNEC at the same proportional rate as Windows users, there wouldn't be enough to make it worthwhile for me to pursue. Unless maybe they'd pay $9900 or $990 per copy instead of $99?

But for you and others who think the software developers are missing something, my advice is to go for it! Don't waste your time cursing the dark, invent a better light bulb! Think of all those 30 million users out there with their checkbooks practically open, ready to write you a check! NEC-2, a little GUI, and you're on your way to riches!

Those 30 million people are waiting with bated breath and open wallets -- don't let them down!

And no apology necessary for the rant. Everyone is entitled to his opinion. I get lots of advice on programming from people who have never done it, and on child rearing from childless people, too, so it's nothing new.

Roy Lewallen, W7EL

Eric Oyen - N7ZZT wrote:
> ok, lets refine this a bit....
>
>
> In article <uunlrgs59laq0e@corp.supernews.com>, "Roy Lewallen"
> <w7el@eznec.com> wrote:
>
>
>>EZNEC is a commercial product which, as you gathered, operates only
>>under Windows. The reason for this is simple: the customer base for
>
> thats a given...
>
>
>>Macintosh, Linux, and other operating systems is simply too small to
>>justify the time required to develop versions for these systems. Some
>
> really? you think 30 million plus users of linux is too small a market
> share (and growing by 4 million anually)? as for mac, et al, they aren't
> as small a market share as you would think, given the amount of space
> dedicated to mac product lines at places like Fry's electronics, Best

> Buy, Circuit city, and others... In fact, some of the software and
> products for these systems (such as linux, mac osX) are available at
> staples and office max! I'm sorry, but you are writing off a substantial
> market share based on an assumption.
>
>
>>people who do want to use operating systems other than Windows and at
>>the same time have access to some of the richness of applications
>>available for Windows use emulators to run Windows software. Although I
>
> actually, a lot of apps have migrated to native linux/OSX modes.. AND, it
> isn't that hard to develope for linux, etc because its all open source
> (all those eyes looking for bugs free of charge).
>
>
>>can't guarantee that EZNEC will run on a particular system with an
>>emulator, I've gotten a number of reports of success using it with
>>emulators.
>
> depends on the system. some of the newer linux distro's work nicely
> (especially if you have a nice fast/powerful cpu to back them up).
>
>
>>I suggest you take a look at http://www.qsl.net/wb6tpu/swindex.html.
>>You'll find free antenna analysis software there compiled for Linux by
>>people who have done it as a labor of love. NEC-2, which is free, will
>>produce the same answers as EZNEC and similar software, although with a
>>somewhat more cumbersome user interface.
>
> ah. thanks for the info.... sorry for my rant up above.
>
>
>>Roy Lewallen, W7EL
>>
>
>
> DE N7ZZT (Eric Oyen)
> Phoenix, Az

3713. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 12:00:41 UTC
From: amfowler@melbpc.org.au
Message-ID: <3dec9bdd.22053678@news.melbpc.org.au>
Source record: 130102

richardharrison@webtv.net (Richard Harrison) wrote:

>Alan Fowler wrote:
>"Now does the current flow up to the sheet, flow out over one side of
>the sheet, across the edge, back down the other side then continue along
>the wire---?"
>
>Exactly. When a conducting sheet is impaled on a wire, its skin effect
>blocks penetration if no hole is left open for the current to squeeze
>through. Current must transfer from the wire to the sheet`s surface to
>get from the wire on one side to the wire on the other side. It cannot
>take the short-cut directly through the conducting sheet or through the
>wire. Skin effect blocks direct passage.
>Best regards, Richard Harrison, KB5WZI

Think about this. As the current flows up one side
of the sheet, around the edge and down the other side.

Now think about "proximity effect". This is the
reason the current flows on the inner surface of the outer
conductor in a coaxial cable, and the outer surface of the
inner conductor.

Alan.

3714. Re: Butternut mounting ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 12:05:04 UTC
From: Mogens <petsen@lazy.dk>
Message-ID: <3dec9dfc$0$71664$edfadb0f@dread11.news.tele.dk>
Source record: 130103

Hi Ted

Thanks for your reply.
I will consider mounting my HF6V the same way.

Mogens

"Ted Sloan" <tedsloan@dsl.pipex.com> wrote in message
news:67b5uus7u4o9c1hqmm458b6e4cn0b0viaa@4ax.com...
> On Mon, 25 Nov 2002 15:09:30 +0100, "Mogens" <petsen@lazy.dk> wrote:
>
> >
> >Or does any mount the HF6V on a little post, so that the ground post is
just
> >above the surface ?
> >
> >
> >Mogens
> >
> >
> >
> Yes, I did that when I used this antenna at my last house. I drove an
> aluminium pipe (can not recall the lenght) into the ground and
> strapped the bottom of the BUTTERNUT on to that. They were a "special"
> strap that a friend in industry gave to me. They held the antenna very
> well. I also guyed this antenna with light, green garden twine that I
> got from a garden centre. That kept it upright and there was no sign
> of it bending over a period of eight years.
>
> Mounting it in this fashion allowed me to unstrap it and I had the
> complete antenna when I moved house. In just hammered the redundant
> ground pipe further into the soil until it disappeard !
>
> 73 Ted GI4AHP

3715. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 12:18:20 UTC
From: fractenna@aol.com
Message-ID: <20021203071820.21134.00009149@mb-fx.aol.com>
Source record: 130104

>[Chip: FYI... I am a self employed electro-technology consultant, expert in
>mathematical methods of optimization,
>published textbook author, definitely not a Scientist! But I know a
>"Scientific Scam" surrounded by "BS" when I see it, and...
>unlike the genteel Dr. Steve Best, I'm not afraid to call a spade a spade?
>Want the truth? Wanna hire me? Hey, my fees
>are kinda steep! But... I do get results! Object oriented genetic optimzer
>indeed! No? Not interested? What?]
>
>Heh, heh...
>
>--
>Peter K1PO
>Indialantic By-the-Sea, FL

I think that was far more than I expected you to admit. Of course there are many more details, and one might speculate that some of your clients have been very, very interested in what you are alleging is a "scientific scam"-- to quote you.

Just because they have not made progress may, you know, indicate the wrong people for the tasks at hand.I would also be very concerned about delving into using other people's IP--but that's just a thought.

I geuss everyone wants an edge these days.

Trying to render an inventor as absurd is not a successful way to acheive that, and you may wish to reconsider such a path.

If I were you--and clearly I am not-- I would minimize exposure and maximize fact.

Best of luck,

73
Chip N1IR

3716. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 12:29:59 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asi846pec1@helle.btinternet.com>
Source record: 130105

Why can't it collapse at roughly the same speed ?

==========

It does, but it's obvious it always starts back too late. Even at the
velocity of light it needs time to go to a given distance from the antenna
and then come back to where it started. You disappoint me.

3717. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 12:30:00 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asi847pec2@helle.btinternet.com>
Source record: 130106

Dick, the nature of your response is sufficient to convince bystanders you don't have any idea about what part, if any, of an antenna does the radiating.

==========

> So you dangled a worm and I swam by..... :-)
>
> Dick

3718. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 13:36:59 UTC
From: Doz <doz@postmaster.com>
Message-ID: <3decb37c$0$4782$fa0fcedb@lovejoy.zen.co.uk>
Source record: 130107

You could use a gainful antenna (a mini beam affair) and point it directly down the hill.. not straight out. One each side of the mountain.. ? For this you would need some sort of matching/phasing unit to operate 2 antennas in TX mode at the same time...
remeber.. point down not out.

"John Smith" <someone@microsoft.com> wrote in message news:3deb8dfb$1_3@news.newsgroups.com...
> I am a volunteer for a local Ski Patrol. We are using mostly Motorola
> handheld FM radio's in the 155mhz range (about 100 of them). We have a base
> station at the top of the mountain and at the bottom. This year we have
> added CTCSS and now can screen out all of the annoying other rescue squads
> that used to dominate us (at the top of the mountain). However, we STILL
> have not solved our poor coverage problem. Specifically, we have dead zones
> all over the mountain where we cannot communicate handheld to handheld or
> handheld to the top or bottom. Sometimes, we can't communicate well even
> from the top to the bottom. In addition, we have a "back side" of the
> mountain, where we can only communicate from the backside to the top, and
> where we would like to be able to talk to the base (at the very bottom).
>
> My question is, would a repeater help this situation the most? Or maybe
> better (higher) antenna's? Would it be possible (practical) to have a
> repeater at the top AND at the bottom? Would something like the Vertex
> VXR1000 connected to our base statations (which are really just mobils with
> transformers) be of any practical use?
>
> I would appreciate any advice, especially on how to do this on a shoe-string
> (we are a volunteer organization).
>
> I've posted the question in the equipment group, but thought you guys might
> suggest antenna's instead.
>
> Thanks,
>
> Mark Rees
> (Using someone elses account)
> markrees@mindspring.com
>
>

>
>
>
> ------------== Posted via Newsfeed.Com - Uncensored Usenet News
==----------
> http://www.newsfeed.com The #1 Newsgroup Service in the World!
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=-----

3719. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 13:39:16 UTC
From: Doz <doz@postmaster.com>
Message-ID: <3decb405$0$4778$fa0fcedb@lovejoy.zen.co.uk>
Source record: 130108
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

Answer = a. but not for long at that swr!

"I Smac" <Smac61yourpanties@hotmail.com> wrote in message
news:OVidna0Ldu0w1XGgXTWc3Q@comcast.com...
> Wattmeter reads 150W forward. 50W reflected.
>
> Power OUT OF TRANSMITTER = ???
>
> a) 100W
> b) 150W
> c) other
>
>
>
>

3720. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 13:52:08 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DECB708.1070709@ieee.org>
Source record: 130109
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

I Smac wrote:
> Wattmeter reads 150W forward. 50W reflected.
>
> Power OUT OF TRANSMITTER = ???
>
> a) 100W
> b) 150W
> c) other

Exactly where is the wattmeter located?
Is the 50W reflected flowing back into the transmitter?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3721. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 13:57:35 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DECB84F.1070204@ieee.org>
Source record: 130110

Eric Oyen - N7ZZT wrote:

> Roy wrote:
>>Macintosh, Linux, and other operating systems is simply too small to
>>justify the time required to develop versions for these systems.
>
> really? you think 30 million plus users of linux is too small a market
> share (and growing by 4 million anually)?

What percentage of amateur radio operators run linux?
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3722. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 14:36:27 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <wtVayiArFM79EAA2@ifwtech.co.uk>
Source record: 130125

Alan Fowler wrote:
>
>richardharrison@webtv.net (Richard Harrison) wrote:
>
>>Alan Fowler wrote:
>>"Now does the current flow up to the sheet, flow out over one side of
>>the sheet, across the edge, back down the other side then continue along
>>the wire---?"
>>
>>Exactly. When a conducting sheet is impaled on a wire, its skin effect
>>blocks penetration if no hole is left open for the current to squeeze
>>through. Current must transfer from the wire to the sheet`s surface to
>>get from the wire on one side to the wire on the other side. It cannot
>>take the short-cut directly through the conducting sheet or through the
>>wire. Skin effect blocks direct passage.
>>Best regards, Richard Harrison, KB5WZI
>
> Think about this. As the current flows up one side
>of the sheet, around the edge and down the other side.
>
> Now think about "proximity effect". This is the
>reason the current flows on the inner surface of the outer
>conductor in a coaxial cable, and the outer surface of the
>inner conductor.

No, it's because each of those conductors generates its own skin effect.

Skin effect is generated *locally* on any conductor, independent of
whatever RF circuit it happens to be part of.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

3723. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 14:44:00 UTC
From: richardharrison@webtv.net
Message-ID: <25598-3DECC330-819@storefull-2313.public.lawson.webtv.net>
Source record: 130113

Alan Fowler wrote:
"Now think about "proximity effect". This is the reason the current flows on the inner surface of the outer conductor in a coaxial cable, and the outer surface of the inner conductor."

In part, perhaps, as the transmission line has series inductance.

According to Terman`s 1955 opus on page 23, "Proximity Effect" is "skin effect in coils". Proximity of conductors carrying current in the same direction boosts resistance over simple skin effect because like charges repel each other and concentrate the charges away from other. This boosts the effective resistance. I would think the same effect would appear in conductors carrying current in opposite directions as the attraction between unlike charges would concentrate charge in proximate areas of the conductors.

In a transmission line, the transverse voltage has opposite polarity charges facing each other.

Facing transmission line surfaces have incident currents inducing opposite direction currents in each other. These motivate current within the coax rather than outside the coax. The potential difference is between the inside conductors. The outside of the coax is shielded from the inner conductors by skin effect.

Best regards, Richard Harrison, KB5WZI

3724. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 15:08:13 UTC
From: richardharrison@webtv.net
Message-ID: <26655-3DECC8DD-1063@storefull-2316.public.lawson.webtv.net>
Source record: 130114

Rick, N6RK wrote:
"I picked up WCBS in NYC on 880 KHz from the west coast with one of my beverages."

I used to listen to the nightly news with Edward R. Murrow from WCBS when I lived in Portugal, using my Beverage antenna. During fades, I rocked the dial slightly to pick up WWL in New Orleans which simultaneously carried Murrow. No problems. My Beverage was overhead, not so close to the ground, but pointed at New York.

Best regards, Richard Harrison, KB5WZI

3725. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 15:08:21 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asihct$q3p$1@slb9.atl.mindspring.net>
Source record: 130111
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

I Smac:

Is this a trick question?

How is the "Wattmeter" connected into the system, what is the load
impedance, and what type of Wattmeter is it?

--
Peter K1PO
Indialantic By-the-Sea, FL

"I Smac" <Smac61yourpanties@hotmail.com> wrote in message
news:OVidna0Ldu0w1XGgXTWc3Q@comcast.com...
> Wattmeter reads 150W forward. 50W reflected.
>
> Power OUT OF TRANSMITTER = ???
>
> a) 100W
> b) 150W
> c) other
>
>
>
>

3726. Re: Butternut mounting ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 15:14:19 UTC
From: Ace <Ace@nbr1.com>
Message-ID: <fT3H9.223248$%m4.79255@rwcrnsc52.ops.asp.att.net>
Source record: 130112

I have a Butternut HF9V vertical and I have it ground mounted. I purchased
a tilt-over device for it from Gap. I'm very satisfied with it. I never
have to worry about high winds again. When it's threatening out I go out
and in about 2 minutes I have my vertical laying on the ground. Don't let
anybody tell you that a vertical won't permanently bend in high winds, they
will, it happened to me.
My 2 cents worth .

"Mogens" <petsen@lazy.dk> wrote in message
news:3dec9dfc$0$71664$edfadb0f@dread11.news.tele.dk...
> Hi Ted
>
> Thanks for your reply.
> I will consider mounting my HF6V the same way.
>
> Mogens
>
>
> "Ted Sloan" <tedsloan@dsl.pipex.com> wrote in message
> news:67b5uus7u4o9c1hqmm458b6e4cn0b0viaa@4ax.com...
> > On Mon, 25 Nov 2002 15:09:30 +0100, "Mogens" <petsen@lazy.dk> wrote:
> >
> > >
> > > >Or does any mount the HF6V on a little post, so that the ground post is
> just
> > > >above the surface ?
> > > >
> > > >Mogens
> > > >
> > > >
> > > >
> > > Yes, I did that when I used this antenna at my last house. I drove an
> > > aluminium pipe (can not recall the lenght) into the ground and
> > > strapped the bottom of the BUTTERNUT on to that. They were a "special"
> > > strap that a friend in industry gave to me. They held the antenna very
> > > well. I also guyed this antenna with light, green garden twine that I
> > > got from a garden centre. That kept it upright and there was no sign
> > > of it bending over a period of eight years.
> >
> > Mounting it in this fashion allowed me to unstrap it and I had the
> > complete antenna when I moved house. In just hammered the redundant
> > ground pipe further into the soil until it disappeard !
> >

> > 73 Ted GI4AHP
>
>

3727. Re: receive-only antenna for FT-920

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 15:16:16 UTC
From: Robert Spooner <rls19@psu.edu>
Message-ID: <3DECCAC0.4000601@psu.edu>
Source record: 130115

Benson,

If you can possibly do it, an outdoor antenna is the way to go. Barring that, a loop antenna for the MW broadcast band and a wire for SW broadcast as high as possible and as long as possible would be good. If you have a particular band you are interested in and can put up a half-wave dipole for that band, you should have good results. Indoor antennas are noisy.

73,
Bob AD3K

Benson Wills wrote:
> I'm getting a FT-920 for Christmas and will be using it for just SWL of
> the broadcast bands until spring when I can get a 6M antenna up. I
> understand that the 920 has a RCA jack for a receive-only antenna. Short
> of stringing a piece of wire across the room, is there something else
> that works better for inside use, and doesn't cost a fortune?
>

--
Robert L. Spooner
Registered Professional Engineer
Associate Research Engineer
Intelligent Control Systems Department

Applied Research Laboratory Phone: (814) 863-4120
The Pennsylvania State University FAX: (814) 863-7841
P. O. Box 30
State College, PA 16804-0030 rls19@psu.edu

3728. Re: Aluminum in San Diego area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 15:19:14 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3decd1b7_4@news1.prserv.net>
Source record: 130117

Dennis:
I presume you are looking for tubing so it is center supported. A wire dipole works just as well, if you have something to hold up each end. Otherwise, find two CB whips and install them bottom to bottom with some sort of insulator like those used to put two Hamsticks up as a dipole, and tie your coax to them.
Have fun on Ten.
--
Crazy George
Remove NO and SPAM from return address
"Stahr" <w6nycthetrash@earthlink.net> wrote in message
news:UMKG9.408$hM3.69800@newsread2.prod.itd.earthlink.net...
> Could somebody tell me where, in the San Diego area, I can find some
> aluminum to build a simple 10m dipole?
>
> Thank you
> --
>
> 73 de:
> Dennis Stahr - W6NYC
>
> http://www.qsl.net/w6nyc/
> Take out "the trash" when return emailing
>
>
>
>

3729. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 15:23:33 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asii9e$g50$1@slb6.atl.mindspring.net>
Source record: 130116

Chip:

[snip]
> If I were you--and clearly I am not-- I would minimize exposure and
maximize
> fact.
>
> Best of luck,
>
> 73
> Chip N1IR
[snip]

Fact is...

You came back into this Newsgroup a few months ago, spoiling for a fight
with the
genteel Dr. Best, and begged Dr. Best, or anyone, for a quantative FOM.
Well Dr.
Best delivered a valid FOM within a day, and then... *you* promised to
deliver a
fractal antenna design optimized against that FOM by the end of October,
and...

You didn't!

Game over you set the rules, made the boast and... *you lost*!

This kind of "bait and switch" and failure to deliver has been an earmark of
most of your
postings on this NG for the past several years. I have seen no difference
or improvement in
your approach to others here from whom you seek approval.

No one denies that antennas with fractal geometry radiate, they do and
that's a fact, heh, heh
but... that is not your scam. Your scam comprises the outlandish and often
absurd claims of
optimality and originality and the accompanying boyish and booring boasts,
braggadicio and
idle threats of litigation thrown out to all at hand.

I say... go peddle your "fractal is the best thing since sliced bread" and
"I own all the patents"
Na, na, na nana... scam elsewhere where there might be innocent souls more
gullible than
the present audience.

--
Peter K1PO
Indialantic By-the-Sea, FL

3730. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 15:38:06 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212030738.616de2c1@posting.google.com>
Source record: 130118

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<23317-3DEB795D-700@storefull-2317.public.lawson.webtv.net>...
> Alan Fowler wrote:
> "Now does the current flow up to the sheet, flow out over one side of
> the sheet, across the edge, back down the other side then continue along
> the wire---?"
>
> Exactly. When a conducting sheet is impaled on a wire, its skin effect
> blocks penetration if no hole is left open for the current to squeeze
> through. Current must transfer from the wire to the sheet`s surface to
> get from the wire on one side to the wire on the other side. It cannot
> take the short-cut directly through the conducting sheet or through the
> wire. Skin effect blocks direct passage.
> Best regards, Richard Harrison, KB5WZI

Richard do you have a reference that I can look at regarding
clearance required. I have always just made a hole big enough
so that insulated wire could go thu but water was kept out!
This would be a good time to correct this practice.
Thanks
Art

3731. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 15:43:04 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212030743.533461d2@posting.google.com>
Source record: 130119

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<asgru1$6qe$1@sparta.btinternet.com>...
> "Off with their heads" said the Queen of Hearts.

We don,t have "tarts" over here, only 'hookers'.
A poor effort for a english joke.
Art

3732. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 15:57:00 UTC
From: richardharrison@webtv.net
Message-ID: <26655-3DECD44C-1066@storefull-2316.public.lawson.webtv.net>
Source record: 130120

John Smith wrote:
"I am a volunteer for a local Ski Patrol."

Crazy George is not crazy at all. "Private Line" is not private at all. It only squelches the competition for the channel in your receivers so you don`t listen to all the other users. They are still using the channel and this is often when you would like to use it.

Multiple repeaters can be used to fill in the dead spots and voting receivers can be cordinated to select the response. It is complicated and costly. A professional is called for if Motorola won`t do it for you. Remember that their interest may not be exactly coincident with yours, in the short term. Motorola certainly has the expertise in-house if they choose to do the customer service.

Best regards, Richard Harrison, KB5WZI

3733. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 16:31:03 UTC
From: richardharrison@webtv.net
Message-ID: <26655-3DECDC47-1069@storefull-2316.public.lawson.webtv.net>
Source record: 130121

Art, KB9MZ wrote:
"--do you have a reference that I can look at regarding clearance
(around a wire)--?"

I don`t remembr the attenuation or where to find it. An internet search might find the answer. Metal casement windows can be closed on an aerial wire fairly tightly and the signal gets around and under them. The attenuation may or may not be noticeable. I remember an illustration of pyrex insulators in a metal bulkhead which was at least twice as bad as parallel wires through the same hole because the same current magnitude was getting two bites taken out of it by going through two holes. The metal has opposing currents induced into it.. But if there is no loss in the metal? Parallel wires going through the same hole have opposing currents nullifying the external field
to a large extent. I can`t quantify it off the top of my head.

Best regards, Richard Harrison, KB5WZI

3734. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 16:59:12 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <nhnpuusr0eovmr08ookvbk9bm26hhvm170@4ax.com>
Source record: 130122

On 03 Dec 2002 02:29:08 GMT, tdonaly@aol.com (Tdonaly) wrote:

|>
| I guess in a place like Texas a man needs a gun in order to make sure he
|sees his next birthday. It's different in other parts of the U.S. where people
|are more on the civilized side.

That would be in gun-free Washington DC and NYC I suppose. Or maybe in a national monument such as Organ Pipe here in AZ where the rangers wear body armor and carry automatic weapons to protect themselves from the #&$(_* illegal Mexican aliens---ooops sorry---I meant "poor downtrodden migrant workers."

Of course, it doesn't always work out; a ranger was killed a couple of months ago. But my government says that as a native-born citizen I should be unarmed when I visit my national parks and monuments, and Oh by-the-way, I shouldn't leave my car unattended in the parking lot at Organ Pipe.

Is this nuts or what?

3735. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 17:04:14 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <ktopuug7dtgqrrhlmslgdujis56su3duu1@4ax.com>
Source record: 130123

On Tue, 03 Dec 2002 02:51:22 -0800, Roy Lewallen <w7el@eznec.com>
wrote:
[snip]

| I get lots of advice on programming from people who have never
|done it, and on child rearing from childless people, too, so it's
|nothing new.
|

Lots of priests are doing marriage counseling too <g>.

3736. Re: receive-only antenna for FT-920

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 17:05:51 UTC
From: Benson Wills <blackhole@doozy.us>
Message-ID: <blackhole-1364D0.12055103122002@corp.supernews.com>
Source record: 130124

Thanks, Bob. I think I can get a piece of coax to the outside, then get
a wire up into a nearby tree.

I will have a ground rod very near where the coax comes into the house.
What is the wisdom regarding static/lightning protection? Put a
Polyphaser-type device adjacent to the rod?

In article <3DECCAC0.4000601@psu.edu>, Robert Spooner <rls19@psu.edu>
wrote:
> If you can possibly do it, an outdoor antenna is the way to go. Barring
> that, a loop antenna for the MW broadcast band and a wire for SW
> broadcast as high as possible and as long as possible would be good. If
> you have a particular band you are interested in and can put up a
> half-wave dipole for that band, you should have good results. Indoor
> antennas are noisy.

--
E-mail replies: change 'blackhole' to 'usenet3'

3737. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 17:20:32 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <b1qpuu0dv20j6koepuij6murfs2j8m9k5j@4ax.com>
Source record: 130126

On Tue, 3 Dec 2002 08:44:00 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Proximity of conductors carrying current in the same
>direction boosts resistance over simple skin effect because like charges
>repel each other and concentrate the charges away from
>other. This boosts the effective resistance.

Hi Richard,

This is ameliorated by merely separating the loops of the coil at
least three wire diameters.

73's
Richard Clark, KB7QHC

3738. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 17:37:41 UTC
From: I Smac <Smac61yourpanties@hotmail.com>
Message-ID: <hjqdnfbntYpAdnGgXTWcpw@comcast.com>
Source record: 130127
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

> Is this a trick question?

No. I'm getting several answers and I thought I'd float it out here for
debate...

> How is the "Wattmeter" connected into the system, what is the load
> impedance, and what type of Wattmeter is it?
> > Wattmeter reads 150W forward. 50W reflected.

Bird 43, radio>jumper>wattmeter>coax>load, typical 50ohm stuff

> > Power OUT OF TRANSMITTER = ???
> >
> > a) 100W
> > b) 150W
> > c) other

3739. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 17:48:34 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <jsqpuu8hfj94jlc71lsgbctkkh50dnvtji@4ax.com>
Source record: 130128

On Tue, 03 Dec 2002 08:40:13 GMT, "Eric Oyen - N7ZZT"
<eric.oyen@cox.net> wrote:

> you think 30 million plus users of linux is too small a market
>share (and growing by 4 million anually)? as for mac, et al, they aren't
>as small a market share as you would think

Hi Eric,

If this group is representative (and it is THE place to come speak to the author); you are the first in my knowledge to have asked since 1995. So much for the reputation of market share as a reliable argument. If YOU are representative of that other share, you might want to think about survival and the propagation of the species given the incredibly thin numbers by this same representation as an expression of share. The population "might" double in 10 years? That is absurd as a statistic of health given that flavor of the day computer languages disappear faster than that. I am fluent in at least half a dozen extinct languages myself - more if I count dialects.

I have Linux, and I know how to emulate Windows (I also have Windows). A Mac? I've always been amused how those owners scramble with a system crash - so much so that it erases their short term memory and they continue to gush how stable it is. :-)

You failed to mention UNIX, OS/2, (I hesitate to offer CP/M) and so on that still runs on machines in closets (talk about market share). You also forgot to recite that there are more servers running on Linux than any other system. Good reason too, but it fails to illuminate the fact that most of those servers are in the same closets as the old CP/M machine - not in commercial service.

The answer is to write applications in a Network Language (not an OS language) like Java.

73's
Richard Clark, KB7QHC

3740. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 17:53:51 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <hurpuuso852e627q0eoasisso34rskslrk@4ax.com>
Source record: 130129

On Tue, 3 Dec 2002 09:57:00 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>John Smith wrote:
>"I am a volunteer for a local Ski Patrol."
>
>Crazy George is not crazy at all. "Private Line" is not private at all.
>It only squelches the competition for the channel in your receivers so
>you don`t listen to all the other users. They are still using the
>channel and this is often when you would like to use it.
>
>Multiple repeaters can be used to fill in the dead spots and voting
>receivers can be cordinated to select the response. It is complicated
>and costly. A professional is called for if Motorola won`t do it for
>you. Remember that their interest may not be exactly coincident with
>yours, in the short term. Motorola certainly has the expertise in-house
>if they choose to do the customer service.
>
>Best regards, Richard Harrison, KB5WZI

Guys,

This all has been eclipsed by satellite emergency communications for
this very reason. If the original writer needs any volunteer help, it
is for a good grant writer to get the right equipment.

73's
Richard Clark, KB7QHC

3741. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 18:03:47 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <7gspuugr8r2j8sevfdkrm46jaee9dfnlno@4ax.com>
Source record: 130130

On 2 Dec 2002 23:03:59 -0800, nm5k@wt.net (Mark Keith) wrote:

><Jimnn7k@reno.rmci.net> wrote in message news:<XDyG9.21534$EY.1407@fe01>...
>> Balderdash-- in rural locations, moving your antenna as little as 1/4
>> wavelength will take a signal from MINIMUM to MAXIMUM ! why? because of
>> different wave fronts caused by propagation cause the various recieved
>> signals to ADD, or CANCEL the recieved signal. in fact, if you are going
>> down a road , listening to your radio , at night, you can MEASUER THE
>> WAVELENGTH (reciprical of the frequency) between the NULLS in the signals
>> (1/2 wavelength points)!! go for the most antenna you can get, but doel
>> (or more feeds itno the pattern would help the most! jim nn7k
>
>I did a few quick comparisons between a 16 inch loop, and my "T"
>vertical, which is about 42 ft tall, with a 120 ft long flat top wire.
>It's pretty hot on MW. The radio was my ic-706mk2g. I'll let the
>recordings speak for themselves.
>You can click on the URl for the sound files, and your media player
>"should" bring them right up and start playing. Hopefully anyway...
>
>
>
>I did three tests, on three different frequencies, at different times
>in the evening. I'm in Houston, and used mainly San Antonio as the
>"target" city. "good 200 miles away" I recorded each test. I did
>compress the audio greatly to save d/l time, but the audio is still
>good enough to tell which is best. The files are pretty small and will
>d/l quickly. They were huge files in the original sample rate and
>format...I will "narrate" each test, so you will know which antenna
>was used, and the exact times I switched. You can use the counter in
>the media player to keep track of the time.
>
>Test #1 was at about 7:30 PM on 550 kc.
>http://web.wt.net/~nm5k/mwtest1.mpeg
>"Time in seconds"
>0-13 -----loop
>13-26 -----wire
>26-38 -----loop
>At 38 seconds I nulled the station, so you can hear the null.
>46 -----loop, back pointed to the station
>57-69 -----wire
>69-end -----loop
>
>Test #2 was at about 8:00 PM on 670 kc.
>http://web.wt.net/~nm5k/mwtest2.mpeg

>"Time in seconds"
>0-11 -----loop
>11-23 -----wire
>At 37 seconds I nulled the station
>46 -----back pointed to the station
>55-67 -----wire
>67-end -----loop
>
>Test #3 was at about 9:00 PM on 570 kc. Multiple stations on this
>freq...
>http://web.wt.net/~nm5k/mwtest3.mpeg
>"Time in seconds"
>0-10 ----loop
>10-23 ----wire
>23-37 ----loop
>37-48 ----wire
>At 62 seconds, I turn the loop 90 degrees to get a totally different
>station.
>At 74, I turned back to the first station.
>85 ----turned back to 2nd station again
>91 ----back to the first
>
>
>Anyway, you all be the judge. Myself, I prefer the 16 inch loop anyday
>over a long high non directional wire. Yes, it's quite possible
>beverages or whatever could beat the loop, but you are talking a lot
>more work and wire. And it still wouldn't null as precisely, unless I
>had beverages in every direction. MK
>
>
>
>http://web.wt.net/~nm5k/

Hi Mark,

This was a neat idea and I was very enthused to give it a try, but for some reason nothing happens when I go to the page. I tried with both Netscape and IE and nada (last night and again this morning).

Any hints?

73's
Richard Clark, KB7QHC

3742. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 19:08:36 UTC
From: richardharrison@webtv.net
Message-ID: <23317-3DED0134-892@storefull-2317.public.lawson.webtv.net>
Source record: 130131

Richard Clark wrote:
"This has all been eclipsed by satellite emergency communications for
this very reason."

With terrestrial radio the distance is short, with no noticeable delay.
There are no service provider charges. With satellite, the delays are
the pits for 2-way conversations. Satellite is fine for broadasting or
data, but phones? Terrible, even for half-duplex, in my opinion.

Best regards, Richard Harrison, KB5WZI

3743. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 19:20:41 UTC
From: 'Doc <ltdoc@yahoo.com>
Message-ID: <3DED0409.3090609@yahoo.com>
Source record: 130132
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"I Smac",
You want that in 'Bird Watts'?
'Doc

3744. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 19:22:36 UTC
From: richardharrison@webtv.net
Message-ID: <23317-3DED047C-896@storefull-2317.public.lawson.webtv.net>
Source record: 130135

I Smac wrote:
"Wattmeter reads 150 W forward. 50 W reflected.
Power out of the transmitter = ???

Assuming a Bird meter in a 50-ohm coax of negligible loss, power out of the transmitter is equal to that delivered to the load, and that is by definition the difference between the two readings. In this case it is 100 watts.

Best regards, Richard Harrison, KB5WZI

3745. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 19:30:38 UTC
From: Dan/W4NTI <w4nti@NOSPAMmindspring.com>
Message-ID: <asj11bpij1@slb5.atl.mindspring.net>
Source record: 130133

It is not a old wives tale it is a fact and does indeed work. I have done so and KNOW it works. Who cares if the pattern is distorted? Is that now what he wants to do?

Certainly he would do better with 'professional help'. But he also stated he did not want to go to that kind of expense.

Your comments infer that ham radio operators in general have no knowledge or 'wives tale knowledge' I take as offensive. I for one have plenty of practical experience and I will hold that up to any wizz kid and his paperwork degrees.

Dan/W4NTI

"Crazy George" <munschNO@attglobal.net.SPAM> wrote in message news:3dec38a4_1@news1.prserv.net...
but the old wives tale about hanging one
> upside down doesn't help much. The additional scattered signal you may get
> is unpredictable and results from uncontrolled pattern distortion.
> >

3746. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 19:42:43 UTC
From: Dan <danlx@execpc.com>
Message-ID: <3ded06d8$0$1428$272ea4a1@news.execpc.com>
Source record: 130134

On Tue, 3 Dec 2002 10:23:33 -0500, "Peter O. Brackett"
<ab4bc@ix.netcom.com> wrote:

>Chip:
>
>[snip]
>> If I were you--and clearly I am not-- I would minimize exposure and
>maximize
>> fact.
>>
>> Best of luck,
>>
>> 73
>> Chip N1IR
>[snip]
>
>Fact is...
>
>You came back into this Newsgroup a few months ago, spoiling for a fight
>with the
>genteel Dr. Best, and begged Dr. Best, or anyone, for a quantative FOM.
>Well Dr.
>Best delivered a valid FOM within a day, and then... *you* promised to
>deliver a
>fractal antenna design optimized against that FOM by the end of October,
>and...
>
>*You* didn't!
>
>Game over you set the rules, made the boast and... *you lost*!
>
>This kind of "bait and switch" and failure to deliver has been an earmark of
>most of your
>postings on this NG for the past several years. I have seen no difference
>or improvement in
>your approach to others here from whom you seek approval.
>
>No one denies that antennas with fractal geometry radiate, they do and
>that's a fact, heh, heh
>but... that is not your scam. Your scam comprises the outlandish and often
>absurd claims of
>optimality and originality and the accompanying boyish and booring boasts,
>braggadicio and
>idle threats of litigation thrown out to all at hand.

>
>I say... go peddle your "fractal is the best thing since sliced bread" and
>"I own all the patents"
>Na, na, na nana... scam elsewhere where there might be innocent souls more
>gullible than
>the present audience.
Hi Peter,
Now you have gone and done it. Now Mr. Buffoon will have to, oh wait,
Mr. Buffoon does not act like normal people do. Never mind.

BTW, Mr. Buffoon's name was arrived at after reading Mr. Buffoons
posts over several years. Buffoon is the only logical conclusion.

Dan
N9JBF

3747. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 19:47:55 UTC
From: richardharrison@webtv.net
Message-ID: <23317-3DED0A6B-898@storefull-2317.public.lawson.webtv.net>
Source record: 130137

Richard Clark, KB7QHC wrote:
"This is ameloriated by merely separating the loops of the coil to at least three wire diameters."

Then, more turns are required for a given inductance. More turns mean more resistance, so high-Q coils become complicated. Life gets tedious, don`t it?

Best regards, Richard Harrison, KB5WZI

3748. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 20:00:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uuq3bejvu4h794@corp.supernews.com>
Source record: 130136

Art, what have you found out regarding the thickness of the aluminum
foil you're using? How many skin depths thick is it at the frequency at
which you're using it?

Roy Lewallen, W7EL

Art Unwin KB9MZ wrote:
> richardharrison@webtv.net (Richard Harrison) wrote in message
news:<23317-3DEB795D-700@storefull-2317.public.lawson.webtv.net>...
>
>>Alan Fowler wrote:
>>"Now does the current flow up to the sheet, flow out over one side of
>>the sheet, across the edge, back down the other side then continue along
>>the wire---?"
>>
>>Exactly. When a conducting sheet is impaled on a wire, its skin effect
>>blocks penetration if no hole is left open for the current to squeeze
>>through. Current must transfer from the wire to the sheet`s surface to
>>get from the wire on one side to the wire on the other side. It cannot
>>take the short-cut directly through the conducting sheet or through the
>>wire. Skin effect blocks direct passage.
>>Best regards, Richard Harrison, KB5WZI
>
>
> Richard do you have a reference that I can look at regarding
> clearance required. I have always just made a hole big enough
> so that insulated wire could go thu but water was kept out!
> This would be a good time to correct this practice.
> Thanks
> Art

3749. Re: Aluminum in San Diego area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 20:24:33 UTC
From: Bill Mahaffey <ka6dvn@cox.net>
Message-ID: <0001HW.BA1253350019A10AF0284600@news.west.cox.net>
Source record: 130138

Dennis,

If you give up, as I did,
you can order what you want from texas towers, as I did.

My bertical is now up.

bill mahaffey
ka6dvn

On Tue, 3 Dec 2002 7:19:14 -0800, Crazy George wrote
(in message <3decd1b7_4@news1.prserv.net>):

> Dennis:
> I presume you are looking for tubing so it is center supported. A wire
> dipole works just as well, if you have something to hold up each end.
> Otherwise, find two CB whips and install them bottom to bottom with some
> sort of insulator like those used to put two Hamsticks up as a dipole, and
> tie your coax to them.
> Have fun on Ten.
> --
> Crazy George
> Remove NO and SPAM from return address
> "Stahr" <w6nycthetrash@earthlink.net> wrote in message
> news:UMKG9.408$hM3.69800@newsread2.prod.itd.earthlink.net...
>> Could somebody tell me where, in the San Diego area, I can find some
>> aluminum to build a simple 10m dipole?
>>
>> Thank you
>> --
>>
>> 73 de:
>> Dennis Stahr - W6NYC
>>
>> http://www.qsl.net/w6nyc/
>> Take out "the trash" when return emailing
>>
>>
>>
>>
>
>

3750. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 20:40:30 UTC
From: k3bu@aol.com
Message-ID: <20021203154030.01415.00007115@mb-mu.aol.com>
Source record: 130139

>
>BTW, Mr. Buffoon's name was arrived at after reading Mr. Buffoons
>posts over several years. Buffoon is the only logical conclusion.
>
>Dan
>N9JBF
>

More like zoo-logical conclusion :-)

3751. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 20:47:02 UTC
From: Ed Senior <eseniors@earthlink.net>
Message-ID: <aL8H9.2716$hM3.319805@newsread2.prod.itd.earthlink.net>
Source record: 130140

Gary's suggestions were practical, and technically sound.
So the disparaging tone re his post was uncalled for at best,
and rather rude.

This IS a case where a simple "no-gain" vertical would outperform
a fancy phased array with a pancake beam. It shouldn't matter much
whether said vertical is a dipole, coaxial dipole, J-pole, or ground
plane. But any location on the mountain side that you can't see from
the antenna location may nevertheless present a coverage problem.

It is not clear whether or not Gary misunderstands CTCSS; so the
polite thing to do would be to give him the benefit of the doubt, and
assume that he understands it OK. But the observation that CTCSS
merely masks co-channel interference is certainly correct.

Is it necessary to share frequencies with the other groups, in an
uncontrolled fashion? Or could you (Gary) conceivably get together
with them, and agree on a non-interfering band plan?

"Crazy George" <munschNO@attglobal.net.SPAM> wrote in message
news:3dec38a4_1@news1.prserv.net...
> Mark:
>
> Unfortunately, you need a real professional to address this problem. I
say
> this because the suggestions Gary makes will be typical of what you get
from
> volunteer help. His problem analysis is correct, you need the correct
> antennas in the right locations, but the old wives tale about hanging one
> upside down doesn't help much. The additional scattered signal you may
get
> is unpredictable and results from uncontrolled pattern distortion.
>
> You also misunderstand the effects of CTCSS. Those other signals are
still
> there, and will sometimes cover up your HTs even though you no longer hear
> them. Push the defeat switch when a unit doesn't answer, and see if there
> isn't another strong signal already there.
>
> Antennas are made with engineered amounts of "downtilt" which is what you
> need here for the top. Several manufacturers make downtilt antennas for
155
> MHz, but none are cheap. For the bottom, you need a professional to look
at
> the requirements and "lay of the land". You probably need a "keyhole" or

> some other shaped pattern antenna for the bottom, but that is a WAG. You
> need to find a wealthy benefactor to fund some system design engineering
to
> get a properly working system. Manufacturers never did that very well,
and
> seem to have given it up altogether these days.
>
> --
> Crazy George
> Retired telecommunications engineer back when real radios glowed in the
dark
> and whined when you pushed the mike button.
> Remove NO and SPAM from return address
>

3752. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 21:50:15 UTC
From: richardharrison@webtv.net
Message-ID: <8811-3DED2717-869@storefull-2314.public.lawson.webtv.net>
Source record: 130142

I wrote:
"Terrible, even for half-duplex in my opinion."

LEOS, Low Earth Orbiting Satellites, could be satisfactory, I suppose, but I have never used a LEOS phone circuit that I know of. Circuits through a geostationary satellite or worse yet, satellites, parked over the equator, introduce too much delay. The round-trip is much too long.

Best regards, Richard Harrison, KB5WZI

3753. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 22:02:48 UTC
From: Reality Check <me@myaddress.net>
Message-ID: <f1aquu88b9cbk0b43gdh1fsdlmtj9m2qns@4ax.com>
Source record: 130141

On 03 Dec 2002 12:18:20 GMT, fractenna@aol.com (Fractenna) wrote:

>>[Chip: FYI... I am a self employed electro-technology consultant, expert in
>>mathematical methods of optimization,
>>published textbook author, definitely not a Scientist! But I know a
>>"Scientific Scam" surrounded by "BS" when I see it, and...
>>unlike the genteel Dr. Steve Best, I'm not afraid to call a spade a spade?
>>Want the truth? Wanna hire me? Hey, my fees
>>are kinda steep! But... I do get results! Object oriented genetic optimzer
>>indeed! No? Not interested? What?]
>>
>>Heh, heh...
>>
>>--
>>Peter K1PO
>>Indialantic By-the-Sea, FL
>
>I think that was far more than I expected you to admit. Of course there are
>many more details, and one might speculate that some of your clients have been
>very, very interested in what you are alleging is a "scientific scam"-- to
>quote you.

Oh stop threatening people you little piece of excrement. You are an
embarassment the the scientific community. Since I have very deep ties
to the DOD community I promise to do my dead level best to prevent you
profiting by putting the lives of our troops at risk with your
bafflegab and pseudo-science frac-crap. You tipped over enough honey
buckets here that folks are now out to get you and get you they will.

Don't go away mad just go away.

>
>Just because they have not made progress may, you know, indicate the wrong
>people for the tasks at hand.I would also be very concerned about delving into
>using other people's IP--but that's just a thought.
>
>I geuss everyone wants an edge these days.
>
>Trying to render an inventor as absurd is not a successful way to acheive that,
>and you may wish to reconsider such a path.
>
>If I were you--and clearly I am not-- I would minimize exposure and maximize
>fact.
>
>Best of luck,

>
>73
>Chip N1IR

3754. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 22:24:59 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212031424.2f4496bd@posting.google.com>
Source record: 130143

"Rick Karlquist" <richard@karlquist.remove.this.com> wrote in message

> Actually, they work better (at least at my QTH) at 2-3 ft off the
> ground. Amazingly, my 520 ft beverages work even down to 1000
> kHz and below. I picked up WCBS in NYC on 880 kHz from the
> west coast with one of my beverages. My ground conductivity is
> so high that 1300 ft beverages are no better than 520 ft beverages.
> In any event, beverages blow the doors off of loops, which blow
> the doors off of random wires of any description.
>
> Rick N6RK

That would probably be the case here also. Our ground quality is
fairly decent.
I wish I had the room to lay out beverages here, but I'm on a city
lot. I do have a place up in the country north of here where I would
have the room. But I don't get up there very often lately. There is no
power up there, but that would be no problem being I run off of
batteries anyway. Next time I go up there, I might take some wire and
try some temporary beverages just strung where ever.
Sometimes I wonder about using a single wire from one of the long barb
wire fences to try as a long antenna, but the rectification problems
from rusty connctions, etc, would probably ruin that idea. I'm sure
the beverage would beat a loop on real long haul dx. I think the loop
is well suited for general use where the main problem is seperating
the different stations, rather than sniffing out very weak dx signals.
I've been considering a set of short phased verticals for 160m dx
listening. They would probably do well on MW also. I'm lucky to
squeeze a 160m dipole on this lot, and I have to bend the legs back
into a "Z" to manage that. 80m is the lowest band dipole I can get in
a straight line over the house. MK

3755. Re: Aluminum in San Diego area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 22:36:39 UTC
From: Stahr <w6nycthetrash@earthlink.net>
Message-ID: <XlaH9.2816$hM3.335100@newsread2.prod.itd.earthlink.net>
Source record: 130144

Sincere thanks to all for the suggestions and ideas... The help is truly
appreciated.
--

Best 73 de:
Dennis Stahr - W6NYC

http://www.qsl.net/w6nyc/
Take out "the trash" when return emailing

"Stahr" <w6nycthetrash@earthlink.net> wrote in message
news:UMKG9.408$hM3.69800@newsread2.prod.itd.earthlink.net...
> Could somebody tell me where, in the San Diego area, I can find some
> aluminum to build a simple 10m dipole?
>
> Thank you
> --
>
> 73 de:
> Dennis Stahr - W6NYC
>
> http://www.qsl.net/w6nyc/
> Take out "the trash" when return emailing
>
>
>
>

3756. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 23:03:15 UTC
From: fractenna@aol.com
Message-ID: <20021203180315.18569.00000416@mb-fp.aol.com>
Source record: 130145

> You tipped over enough honey
>buckets here that folks are now out to get you and get you they will.
>
>Don't go away mad just go away.

Disruptive technologies always pose threats of change. I'm sorry that you feel that way. Wish I knew who you were, maybe I could drop a line to help you work out your negative feelings. In any case I wish you the best.

73,
Chip N1IR

3757. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 23:03:52 UTC
From: tdonaly@aol.com
Message-ID: <20021203180352.24653.00000422@mb-ch.aol.com>
Source record: 130146

>
>|>
>| I guess in a place like Texas a man needs a gun in order to make sure he
>|sees his next birthday. It's different in other parts of the U.S. where
>people
>|are more on the civilized side.
>
>That would be in gun-free Washington DC and NYC I suppose. Or maybe
>in a national monument such as Organ Pipe here in AZ where the rangers
>wear body armor and carry automatic weapons to protect themselves from
>the #&$(_* illegal Mexican aliens---ooops sorry---I meant "poor
>downtrodden migrant workers."
>
>Of course, it doesn't always work out; a ranger was killed a couple of
>months ago. But my government says that as a native-born citizen I
>should be unarmed when I visit my national parks and monuments, and Oh
>by-the-way, I shouldn't leave my car unattended in the parking lot at
>Organ Pipe.
>
>Is this nuts or what?
>

Sounds like a dangerous place. The number of homicides in the city of Oakland,
CA just passed the 100 mark for the year. I don't go there any more.
73,
Tom Donaly, KA6RUH

3758. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 23:22:10 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <sefquucngueo3vbmh4f844pn6jq5t75rel@4ax.com>
Source record: 130147

On Tue, 03 Dec 2002 08:40:13 GMT, "Eric Oyen - N7ZZT"
<eric.oyen@cox.net> wrote:

>really? you think 30 million plus users of linux is too small a market
>share (and growing by 4 million anually)? as for mac, et al, they aren't
>as small a market share as you would think, given the amount of space
>dedicated to mac product lines at places like Fry's electronics,

Go back to rec.radio.scanner and argue with Mackey.

3759. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 23:39:08 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-0312021539080001@bni030qny8kc.bc.hsia.telus.net>
Source record: 130148

In article <7gspuugr8r2j8sevfdkrm46jaee9dfnlno@4ax.com>, Richard Clark
<kb7qhc@attbi.com> wrote:

> Hi Mark,
>
> This was a neat idea and I was very enthused to give it a try, but for
> some reason nothing happens when I go to the page. I tried with both
> Netscape and IE and nada (last night and again this morning).
>
> Any hints?
>
> 73's
> Richard Clark, KB7QHC

Worked just fine for me, using my browser of choice (iCab 2.8.2). Each file was automatically handed over to QuickTime which processed it immediately. I listened to all three clips.

Just to check whether older browsers work, I tried Netscape Communicator 4.8 (the most recent version of the venerable 4.x Netscape series). Worked fine, but I had to download the file and submit it to QuickTime by hand, rather than see it handed over to QuickTime automatically. I then tried Mozilla 1.2.1 (released last night) and again I had to download the file separately and hand it over to QuickTime. Mozilla, as you probably know, is a work in progress, and is about a half year ahead of the Netscape releases (e.g. Netscape 7 is pretty much Mozilla 1.0.1).

I won't have Internet Exploder on my computer, for security reasons, so I can't tell you about that one.

Oh, by the way, all this was done on one of those "unstable" Macs -- a year and a half old G4, to be specific. iCab isn't available for Windows, which is a shame, since it is such a nice browser. And this particular Mac is still running OS 9.2.2, and is not yet on OS X, which in case you didn't know is really UNIX (something like the BSD version) with a pretty face. I think UNIX is considered to be rather stable.

David, ex-W8EZE

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

3760. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-03 23:42:53 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asjfhlsjj1@slb6.atl.mindspring.net>
Source record: 130149

Chip:

[snip]
"Fractenna" <fractenna@aol.com> wrote in message
news:20021203180315.18569.00000416@mb-fp.aol.com...
> > You tipped over enough honey
> >buckets here that folks are now out to get you and get you they will.
> >
> >Don't go away mad just go away.
>
> Disruptive technologies always pose threats of change. I'm sorry that you
feel
> that way. Wish I knew who you were, maybe I could drop a line to help you
work
> out your negative feelings. In any case I wish you the best.
>
> 73,
> Chip N1IR
[snip]

What is it they say in Hollywood, "there is no such thing as bad
publicity!", congratulations!

--
Peter K1PO
Indialantic By-the-Sea, FL

3761. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 00:17:48 UTC
From: Jim Pennino <jimp@specsol.com>
Message-ID: <asjhjc$ag9$1@mail.specsol.com>
Source record: 130150

Fractenna <fractenna@aol.com> wrote:
>> You tipped over enough honey
>>buckets here that folks are now out to get you and get you they will.
>>
>>Don't go away mad just go away.

> Disruptive technologies always pose threats of change. I'm sorry that you feel
> that way. Wish I knew who you were, maybe I could drop a line to help you work
> out your negative feelings. In any case I wish you the best.

> 73,
> Chip N1IR

What the hell are "Disruptive technologies"?

The only ones I can think of in the last hundred years or so are the
automobile (scared the horses) and nuclear weapons (scared everyone).

You only "Wish I knew who you were" so you could send one of your childish,
paranoid threats of a lawsuit for impinging on your "scientific" reputation.

--
Jim Pennino

All statements in this post are the personal opinion of the author.

No warrenties expressed or implied.

All posts void where prohibited by law.

3762. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 01:28:34 UTC
From: k1bqt@aol.com
Message-ID: <20021203202834.01210.00009982@mb-mk.aol.com>
Source record: 130152

>Disruptive technologies always pose threats of change.<

Disruptive Technologies! I love it. Is it registered? Damn, I want that name!

Rick K1BQT

3763. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 01:31:33 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DED6939.6EF6D2D4@townsqr.com>
Source record: 130154

Wes Stewart wrote:

> On 03 Dec 2002 02:29:08 GMT, tdonaly@aol.com (Tdonaly) wrote:
>
> |>
> | I guess in a place like Texas a man needs a gun in order to make sure he
> |sees his next birthday. It's different in other parts of the U.S. where people
> |are more on the civilized side.
>
> That would be in gun-free Washington DC and NYC I suppose. Or maybe
> in a national monument such as Organ Pipe here in AZ where the rangers
> wear body armor and carry automatic weapons to protect themselves from
> the #&$(_* illegal Mexican aliens---ooops sorry---I meant "poor
> downtrodden migrant workers."
>
> Of course, it doesn't always work out; a ranger was killed a couple of
> months ago. But my government says that as a native-born citizen I
> should be unarmed when I visit my national parks and monuments, and Oh
> by-the-way, I shouldn't leave my car unattended in the parking lot at
> Organ Pipe.
>
> Is this nuts or what?

Certainly not "or what".

3764. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 01:39:31 UTC
From: fractenna@aol.com
Message-ID: <20021203203931.27871.00008415@mb-mf.aol.com>
Source record: 130156

>
>>Disruptive technologies always pose threats of change.<
>
>Disruptive Technologies! I love it. Is it registered? Damn, I want that name!
>
>Rick K1BQT
>

Try Professor Christiansen at HBS. Or take any modern MBA program at a reputable school...

73,
Chip N1IR

3765. Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 01:39:48 UTC
From: JELo <jelo@nospammail.com>
Message-ID: <3ded5cff_1@corp.newsgroups.com>
Source record: 130155

Got a copper pipe in the ground
and a bronze grounding clip -
can I connect my 8 gauge
aluminum antenna ground wire
directly to the bronze clip
or do I need to do something special?

JELo

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3766. Re: tempest infos request

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 01:47:45 UTC
From: artie <silli_artie@hotmail.com>
Message-ID: <031220021747425952%silli_artie@hotmail.com>
Source record: 130157

In article <pan.2002.12.03.08.15.23.143031@tuxfamily.org>, vincent
<v@tuxfamily.org> wrote:

> hello guys,
>
> have you got some infos or links about the tempest technique .
>
> I'd like to know how it works.
>
> thx in advance
>
> viny

Look at:

http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep1110-3-2/toc.h
tm

3767. Radiation 101 (please)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 01:48:24 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <H9dH9.5788$3J2.790837@news20.bellglobal.com>
Source record: 130158

I innocently asked:
> Why can't it collapse at roughly the same speed ?

"Reg Edwards"
> You disappoint me.

I'll have to try to come to terms with that a bit later (*).
:-)

> It does, but it's obvious it always starts back too late.
> Even at the velocity of light it needs time to go to a given
> distance from the antenna and then come back to where
> it started.

Sorry to be slow on this, but the speed of light seems like a red herring because it obviously contrains the speed of the expanding field exactly the same way as the collapsing field. Is this another of those weird cases where 'playing the film backwards' (reversing time) wouldn't work ? Is there a frequency that is sufficiently slow that it won't radiate at all ?What is the obvious bit that I'm missing ?

I appreciate your time.

(This reminds me of my previous innocent question about the relative phase of the E and H fields - in phase or quadrature [answer= in phase]. Sometimes the very simplest 'basics' get missed.)

(*) Something to keep in mind is that a child can ask "Why is the sky blue ?". The question is easily answered with elementary physics. But the child only needs to ask about four or five more follow-up "Why?" questions to hit the 'bottom of the well' of human knowledge. It's rather humbling for humanity (at least it should be), and it is also reassuring for those of us that don't know everything (yet). :-)

3768. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 02:00:07 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <HkdH9.5968$3J2.794691@news20.bellglobal.com>
Source record: 130159

"Rick Littlefield"
> Disruptive Technologies! I love it.

I thought that he was onto "Exposure", as in "(Legal) Exposure..." <gasp!>,
as his 'word of the month'.

3769. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 02:05:22 UTC
From: k1bqt@aol.com
Message-ID: <20021203210522.27717.00008865@mb-mf.aol.com>
Source record: 130160

>Try Professor Christiansen at HBS. Or take any modern MBA program at a reputable school...<

Naw, I'm just gonna start using it. Thanks!

Rick K1BQT

3770. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 02:23:35 UTC
From: "Dee D. Flint" <deehays@qix.net>
Message-ID: <HGdH9.5100$4j5.2717480@newssvr28.news.prodigy.com>
Source record: 130151
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"I Smac" <Smac61yourpanties@hotmail.com> wrote in message
news:OVidna0Ldu0w1XGgXTWc3Q@comcast.com...
> Wattmeter reads 150W forward. 50W reflected.
>
> Power OUT OF TRANSMITTER = ???
>
> a) 100W
> b) 150W
> c) other
>

Theoretically it would be 100 watts out BUT the SWR is going to be high enough that most modern transcievers will cut the power back to something substantially less to prevent damage to the transciever.

Dee Flint, N8UZE

3771. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 02:26:21 UTC
From: "Dee D. Flint" <deehays@qix.net>
Message-ID: <hJdH9.5101$4j5.2717824@newssvr28.news.prodigy.com>
Source record: 130153
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Get a copy of the tech manual "Now You're Talking". That will give the theoretically correct answer. As several have stated though, your radio will either cut back or die if you run very long at that rate.

"I Smac" <Smac61yourpanties@hotmail.com> wrote in message news:hjqdnfbntYpAdnGgXTWcpw@comcast.com...
> > Is this a trick question?
>
> No. I'm getting several answers and I thought I'd float it out here for
> debate...
>
> > How is the "Wattmeter" connected into the system, what is the load
> > impedance, and what type of Wattmeter is it?
> > > Wattmeter reads 150W forward. 50W reflected.
>
> Bird 43, radio>jumper>wattmeter>coax>load, typical 50ohm stuff
>
> > > Power OUT OF TRANSMITTER = ???
> > >
> > > a) 100W
> > > b) 150W
> > > c) other
>
>
>

3772. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 02:38:02 UTC
From: Brenda Ann <brendad@shinbiro.com>
Message-ID: <asjo98$cu1$1@news1.kornet.net>
Source record: 130161
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Good answer.

"Dee D. Flint" <deehays@qix.net> wrote in message
news:HGdH9.5100$4j5.2717480@newssvr28.news.prodigy.com...
>
> "I Smac" <Smac61yourpanties@hotmail.com> wrote in message
> news:OVidna0Ldu0w1XGgXTWc3Q@comcast.com...
> > Wattmeter reads 150W forward. 50W reflected.
> >
> > Power OUT OF TRANSMITTER = ???
> >
> > a) 100W
> > b) 150W
> > c) other
> >
>
> Theoretically it would be 100 watts out BUT the SWR is going to be high
> enough that most modern transcievers will cut the power back to something
> substantially less to prevent damage to the transciever.
>
> Dee Flint, N8UZE
>
>

3773. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 02:46:23 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <rlqquu4bma1joa9t065fiusgtl2fdjlpc8@4ax.com>
Source record: 130162

On Tue, 03 Dec 2002 15:39:08 -0800, ryeburn@sfu.caz (David or Jo Anne Ryeburn) wrote:

>And this particular Mac
>is still running OS 9.2.2, and is not yet on OS X, which in case you
>didn't know is really UNIX (something like the BSD version) with a pretty
>face. I think UNIX is considered to be rather stable.
>
>David, ex-W8EZE

Hi David,

Then that must mean you are our token Mac user. OS X is really UNIX? 'Bout time, UNIX has been around for a quarter century or more. Nice to see Apple has cleaned up its act finally after 10 years in the wilderness, but that sidesteps the fact that Apple has been using derivative technology since its inception. [This is not to elevate Microsoft stock, or the perception of worth for Windows - it ain't there either.]

Its a shame that Apple decided to pull the plug on its clones, their market share would've been on par by now but they decided to use fractal marketing techniques.

73's
Richard Clark, KB7QHC

3774. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 02:47:23 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DED7AFD.54C0DC5E@townsqr.com>
Source record: 130163

Reg Edwards wrote:

> Dick, the nature of your response is sufficient to convince bystanders

So who are the bystanders and what are their qualifications?

> you
> don't have any idea about what part, if any, of an antenna does the
> radiating.

Ah, Reg, that may well be. But you and they may rest assured that I have no problem with being quite sure which part of a dipole to elevate in order to cause it to work as needed, which is to say correctly. As long as it does that, who cares how it wants to radiate?

>

And didn't you just say that an antenna doesn't radiate? You into contradicting yourself here?

>
>
> ========================
>
> > So you dangled a worm and I swam by..... :-)
> >
> > Dick

Reg Edwards wrote:

> Dick, the nature of your response is sufficient to convince bystanders you
> don't have any idea about what part, if any, of an antenna does the
> radiating.
>
> ========================
>
> > So you dangled a worm and I swam by..... :-)
> >
> > Dick

3775. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 02:52:15 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212031852.267e149c@posting.google.com>
Source record: 130164

Roy Lewallen <w7el@eznec.com> wrote in message news:<uuq3bejvu4h794@corp.supernews.com>...
> Art, what have you found out regarding the thickness of the aluminum
> foil you're using? How many skin depths thick is it at the frequency at
> which you're using it?
>
> Roy Lewallen, W7EL
>
snip.
> > Thanks
> > Art
Roy,
Re Combination dipole/loop aqntenna
Frankly I haven't achieved anything with respect to the antenna.
I surely over estimated my abilities when I decided on this antenna.
I am a total failure so far with as many steps backwards as forward
First I decided that 1 1/4 I.D. would not be increased...big mistake.
The capacitor is made from a florescentlight tube strengthened with a
coat of epoxy, my clumsiness defeated the epoxy many times. Wires for
the stepping motor plus a relay for swiching door knob capacitors so I
could creep up to 2000pF also took more room. The plastic belting used
to move the capacitor plunger seemed to weak for the job which has
forced me to metal, a direction that I did not want.All of the drive
belt must be encased in its own tubing to ensure no tangling.
So much for whining and excuses.
Now it is a battle of me against age and the cold but to change ideas
now inferes defeat, it will be completed, just longer than I thought
and maybe not this year! Tomorrow is another day tho!
The center portion of the element is aluminum tubing, the rest being
thin fibre.
Foil covering is thicker than past use at .002" and comes with a glue
back
which allowes me to go end to end of the radiator without a break.
In the past I had an inkling to try anti static material, I am really
glad I left that for another day (sprayed metal on mylar, very thin
metal shell !)
It will be used for all bands from 1.8 meg and up as in the past, tho
it may well have four lobes on 28 meg but with more than normal gain
.However the top bands are my interest at the moment as far as
rotatable antennas go.
In retrospect I should have put some of the innards just under foil
rather than within the tube. Now the battle is just for survival
rather than the particular experiment I was attempting which I imagine
the metal drive chain will now defeat.
The auto control will be by a computor chip (bs2sx, stamp) which is

waiting for the cold to drive me inside,hopefully this way I will be able to garnish some facts over time with respect to frequency vs capacitance versus SWR and radiation patterns.
Now, after stating all that I assume that the derision will start all over again.
The song 'Mad dogs and Englishmen....." explains my actions quite well.

Regards
Art

3776. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 02:56:55 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <3brquu4qjn05h44qtjo2mcq3j301of1qoa@4ax.com>
Source record: 130165

On Tue, 3 Dec 2002 15:50:15 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>I wrote:
>"Terrible, even for half-duplex in my opinion."
>
>LEOS, Low Earth Orbiting Satellites, could be satisfactory, I suppose,
>but I have never used a LEOS phone circuit that I know of. Circuits
>through a geostationary satellite or worse yet, satellites, parked over
>the equator, introduce too much delay. The round-trip is much too long.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

I thought if I gave you time enough, LEOS would come to mind. There
are more services than telephones though. If not already in place, it
will come to pass soon that every plane and ocean going vessel will
have an emergency transmitter looking up. Personal models, if not
already available, will become as common as GPS for those who travel
in the mountains.

I've a buddy in SAR here in the Cascades and his group never really
came together effectively until they got serious and went into the
grant cycle. THAT is the cheapest route hands down.

73's
Richard Clark, KB7QHC

3777. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 02:57:45 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3ded7419_4@news1.prserv.net>
Source record: 130166

Please re-read the original question posted by Mark Rees using "John Smith's" account.
--
Crazy George
Remove NO and SPAM from return address

3778. Re: Problems With EDZ Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 03:04:40 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DED7F0A.6A20B2C2@townsqr.com>
Source record: 130167

It appears from his original message that his "balanced antenna" really isn't balanced at all, given that one side of it touches pine tree limbs. That causes unbalance will surely cause common mode radiation on the twin lead which *will* induce into the house AC wiring as the feedline transits through the house to the shack.

I'd try a piece of good coax long enough to reach well outside the house, with a good choke balun installed just before it transitions to the ladderline.

Dick

3779. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 03:12:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uuqsk7h4jcpm05@corp.supernews.com>
Source record: 130168
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

No, not such a good answer.

If the transceiver has cut the power back to substantially less than 100 watts, how did the wattmeter come to read 150 watts forward and 50 reverse? Suppose the transmitter has cut its output power back to, say, 50 watts. The original posting said that the wattmeter reads 150 W forward and 50 reverse, which is 100 watts of real power. So where did the other 50 watts come from? No, if the transmitter has cut its power back, it's cut it back *to* 100 watts, not *from* 100 watts.

If the wattmeter is reading 150 watts forward and 50 reverse, there's 100 watts flowing through the wattmeter, delivering 100 joules per second of energy to whatever's connected to the wattmeter output. Period.

Roy Lewallen, W7EL

Brenda Ann wrote:
> Good answer.
>
> "Dee D. Flint" <deehays@qix.net> wrote in message
> news:HGdH9.5100$4j5.2717480@newssvr28.news.prodigy.com...
>
>>"I Smac" <Smac61yourpanties@hotmail.com> wrote in message
>>news:OVidna0Ldu0w1XGgXTWc3Q@comcast.com...
>>
>>>Wattmeter reads 150W forward. 50W reflected.
>>>
>>>Power OUT OF TRANSMITTER = ???
>>>
>>>a) 100W
>>>b) 150W
>>>c) other
>>>
>>
>>Theoretically it would be 100 watts out BUT the SWR is going to be high
>>enough that most modern transcievers will cut the power back to something
>>substantially less to prevent damage to the transciever.
>>
>>Dee Flint, N8UZE
>>
>>
>
>
>

3780. Re: Radiation 101 (please)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 03:12:52 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <e1squuk8db443fmkm9kgloomljr5rl649t@4ax.com>
Source record: 130019

On Tue, 3 Dec 2002 20:48:24 -0500, "J. Harvey"
<JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote:

>I innocently asked:
>> Why can't it collapse at roughly the same speed ?
>
>"Reg Edwards"
>> You disappoint me.
>
>I'll have to try to come to terms with that a bit later (*).

Not to worry. The guru in his perch, high in the himalayas is
disappointed in us all. :-(

>:-)
>
>> It does, but it's obvious it always starts back too late.
>> Even at the velocity of light it needs time to go to a given
>> distance from the antenna and then come back to where
>> it started.

Come back, now there's a red herring. "What" is it, that "comes back"
like a bad penny? A cloud of electrons? The ï¿½ther? "What" usually
denotes a physical manifestation (the "it" of "it comes back"), except
when used rhetorically as a question - but that would seem to work
too. Is this the propagation velocity of a lame joke?

Any physical entity traveling at the speed of light, suddenly "coming
back" would have the sum total power of the Universe expended in a
whiplash.

>
>Sorry to be slow on this, but the speed of light seems like a red herring
>because it obviously contrains the speed of the expanding field exactly the
>same way as the collapsing field. Is this another of those weird cases
>where 'playing the film backwards' (reversing time) wouldn't work ? Is
>there a frequency that is sufficiently slow that it won't radiate at all
>?What is the obvious bit that I'm missing ?
>
>I appreciate your time.
>
>(This reminds me of my previous innocent question about the relative phase
>of the E and H fields - in phase or quadrature [answer= in phase].
>Sometimes the very simplest 'basics' get missed.)
>

Hi Jeff,

Still just a matter of phase, come-back or no.

73's
Richard Clark, KB7QHC

3781. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 03:13:19 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212031913.29c1bd71@posting.google.com>
Source record: 130020

Wes Stewart <n7ws@nowhere.com> wrote in message
news:<nhnpuusr0eovmr08ookvbk9bm26hhvm170@4ax.com>...
> On 03 Dec 2002 02:29:08 GMT, tdonaly@aol.com (Tdonaly) wrote:
>
> |>
> | I guess in a place like Texas a man needs a gun in order to make sure he
> |sees his next birthday. It's different in other parts of the U.S. where people
> |are more on the civilized side.
>
> That would be in gun-free Washington DC and NYC I suppose. Or maybe
> in a national monument such as Organ Pipe here in AZ where the rangers
> wear body armor and carry automatic weapons to protect themselves from
> the #&$(_* illegal Mexican aliens---ooops sorry---I meant "poor
> downtrodden migrant workers."
snip
I know that it is more than Mexicans that are illegal now. When the
U.S. in the late sixties decided not to continue with the normal West
European which are white and changed over to a system where whites do
not rank in the first dozen
immigrant countries. Now the U.S. is seen as the most wide open
country in the World today for immigration where the quickest way to
citizenship is to arrive illegally and wait for the regular pardons
that occur. This means that immigration is more than double that the
government will admit (reason for the pardons)Don't worry, I have run
into lots of English that are entering illegally
instead of waiting for years of no hope and it may well be them that
take your car now. Everybody knows that illegals are not deported now
or even reported by the police so certainly none of the 'illegals' are
down trodden today.
Ever thought of being a guide at the Nation Monuments to help
immigrants understand what America is all about? They do have money
even tho they may
be Arabic.
Art

3782. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 03:15:23 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DED818D.E842C232@townsqr.com>
Source record: 130021

JELo wrote:

> Got a copper pipe in the ground
> and a bronze grounding clip -
> can I connect my 8 gauge
> aluminum antenna ground wire
> directly to the bronze clip
> or do I need to do something special?

Home building supply or electrical suppliers sell a bimetal clamp designed to be used with copper/steel ground rods that allow different metals to be joined without electrolysis problems. I'd get one if you want it to be reliable, and I'd find out for sure that it IS one that will work with aluminum. Losing your ground without knowing about it can be dangerous, even deadly.

Dick

3783. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 03:19:45 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DED8294.233681CA@townsqr.com>
Source record: 130022

"J. Harvey" wrote:

> "Rick Karlquist"
> > Get a General Electric Superradio. About $50.
>
> Or an old AM/FM car radio,

From an early 50's Buick. Best sounding, most sensitive thing I've heard to
date.

You might also need a supply of vibrators. :-)

Dick

> about $10. Some even have AM Stereo. Needs a
> good, quiet power supply of course. And speakers. And a short wire antenna.
> You know it's working when (at night) you can't find an empty channel on the
> AM band.

3784. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 03:20:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uuqt3t5crpjj36@corp.supernews.com>
Source record: 130023

I guess all that means you haven't calculated it. I had thought you would, since you seemed to show quite an intense interest in how the current varied with depth in that material. And the calculation, which involves no more than high school math, would be simple for a mechanical engineer like you. I guess I misunderstood your earlier postings -- I thought you were interested -- actually very interested -- in that topic. Once again I guess I didn't understand what you were trying to say. Sorry.

Roy Lewallen, W7EL

Art Unwin KB9MZ wrote:
> Roy Lewallen <w7el@eznec.com> wrote in message
news:<uuq3bejvu4h794@corp.supernews.com>...
>
>>Art, what have you found out regarding the thickness of the aluminum
>>foil you're using? How many skin depths thick is it at the frequency at
>>which you're using it?
>>
>>Roy Lewallen, W7EL
>>
>
> snip.
>
>>>Thanks
>>>Art
>>
> Roy,
> Re Combination dipole/loop aqntenna
> Frankly I haven't achieved anything with respect to the antenna.
> I surely over estimated my abilities when I decided on this antenna.
> I am a total failure so far with as many steps backwards as forward
> First I decided that 1 1/4 I.D. would not be increased...big mistake.
> The capacitor is made from a florescentlight tube strengthened with a
> coat of epoxy, my clumsiness defeated the epoxy many times. Wires for
> the stepping motor plus a relay for swiching door knob capacitors so I
> could creep up to 2000pF also took more room. The plastic belting used
> to move the capacitor plunger seemed to weak for the job which has
> forced me to metal, a direction that I did not want.All of the drive
> belt must be encased in its own tubing to ensure no tangling.
> So much for whining and excuses.
> Now it is a battle of me against age and the cold but to change ideas
> now inferes defeat, it will be completed, just longer than I thought
> and maybe not this year! Tomorrow is another day tho!
> The center portion of the element is aluminum tubing, the rest being

> thin fibre.
> Foil covering is thicker than past use at .002" and comes with a glue
> back
> which allowes me to go end to end of the radiator without a break.
> In the past I had an inkling to try anti static material, I am really
> glad I left that for another day (sprayed metal on mylar, very thin
> metal shell !)
> It will be used for all bands from 1.8 meg and up as in the past, tho
> it may well have four lobes on 28 meg but with more than normal gain
> .However the top bands are my interest at the moment as far as
> rotatable antennas go.
> In retrospect I should have put some of the innards just under foil
> rather than within the tube. Now the battle is just for survival
> rather than the particular experiment I was attempting which I imagine
> the metal drive chain will now defeat.
> The auto control will be by a computor chip (bs2sx, stamp) which is
> waiting for the cold to drive me inside,hopefully this way I will be
> able to garnish some facts over time with respect to frequency vs
> capacitance versus SWR and radiation patterns.
> Now, after stating all that I assume that the derision will start all
> over again.
> The song 'Mad dogs and Englishmen....." explains my actions quite
> well.
>
> Regards
> Art

3785. Re: Help with AM Radio Reception

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 03:27:43 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DED8471.50051213@townsqr.com>
Source record: 130024

l wrote:

> I live in north central PA (Allegheny National Forest area). I have
> no electricity. I get liitle radio reception. I am interested in
> suggestions for improving AM radio receptions for stations in New York
> City, Philadelphia, Pittsburg and Buffalo.
>
> I am requesting help on the type of radio and antenna required to get
> reception from these cities.
>
> thanks

You have no electricity, no nuttin', but you DO have an internet
connection.
Hmmmmmmm......

3786. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 03:36:12 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <5mtquuo99qeui72vg54ch5biuuenlp29lp@4ax.com>
Source record: 130025

On 3 Dec 2002 19:13:19 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>They do have money
>even tho they may
>be Arabic.
>Art

Hi Art,

Ever so slightly more than a century ago it was a Brit that opined
about how the brown brother is "the White Man's burden" Can you name
him?

More to the point, was he earnest or mocking?

73's
Richard Clark, KB7QHC

3787. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 03:39:02 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DED78D6.3360FDC5@cwis.net>
Source record: 130026

JELo,
Actually, there is something you can do to
help these metals make better contact in addition
to the recommendation above. This technique does
take time and some preparation. It's much easier
to do before the actual installation, but can be
'retro-fitted' with slightly more effort.
Find a quiet spot where you can be alone with
the various metals involved in your grounding project.
Calmly speak with each individual metal about the
various merits and desirable qualities of the other
dissimilar metals. Extoll the virtues of each to
the other. If you do this correctly, there will
never be a problem about loosing ground because the
dissimilar metals dislike each other.
Another method is to hire a midget belly-dancer to
jingle-jangle her way around the grounding site, while
you paint your self blue and do 'rap' recitations over
the connections to be made. (It helps if the midget
belly-dancer is of Lithuanian extraction.)...
'Doc

PS - It works, but this is a bad time of year to be
doing it, unless you live south of the equator.

3788. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 03:53:57 UTC
From: Zoran Brlecic <WA7AA@attbi.com>
Message-ID: <3DED7C52.4000206@attbi.com>
Source record: 130027

JELo wrote:
> Got a copper pipe in the ground
> and a bronze grounding clip -
> can I connect my 8 gauge
> aluminum antenna ground wire
> directly to the bronze clip
> or do I need to do something special?

I never liked alternative haiku poetry...

3789. Re: Aluminum in San Diego area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 03:58:07 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <h3fH9.4705$mj2.795300@news20.bellglobal.com>
Source record: 130028

"Bill Mahaffey"
> My bertical is now up.

Is a 'bertical' related to Russia's former president, Borizontal ?

3790. Re: Half-sloper connection

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:06:38 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asjv0dkb1@knossos.btinternet.com>
Source record: 130029

> But you and they may rest assured that I have no
> problem with being quite sure which part of a dipole to elevate in order
to
> cause it to work as needed, which is to say correctly. As long as it does
> that, who cares how it wants to radiate?
>
> And didn't you just say that an antenna doesn't radiate? You into
> contradicting yourself here?
>
==========

I have no doubt you know which part of a dipole to elevate to satisfy your needs and keep you happily contented.

I am also happy with grounded verticals with which many people insist (not me) most of the radiation occurs from that part of the antenna which is nearest to the ground.

I have not contradicted myself. Please read more carefully. But on this later occasion you did snap at the trailing worm. No damage was caused. I am an animal lover and don't use barbed hooks. ;o)

What all this has to do with what parts of an antenna do or do not radiate remains a mystery to me.

Yours, Reg.

3791. Re: Radiation 101 (please)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:06:39 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asjv0ekb2@knossos.btinternet.com>
Source record: 130030

> I appreciate your time.
>
I've a feeling you are about to ask an infinitely long sequence of "why's"
and I'm 77 years of age. ;o)

Try looking up an elemetary book on antennas and launching of radio waves.
There's usually a diagram showing the electric lines of force surrounding a
dipole. I wouldn't be surprised if there is such a diagram in an ARRL
publication. If there isn't one then there ought to be. Technical editors
please note.

Reg

3792. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:11:44 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <2gfH9.4714$mj2.801140@news20.bellglobal.com>
Source record: 130031

...Ski Patrol...
...Repeaters...
...Satellites...
...Delays...
...LEO Satellites...

"Richard Clark"
> I've a buddy in SAR here in the Cascades
> and his group never really came together
> effectively until they got serious and went
> into the grant cycle.

So, how many LEO satellites did they end up with ?
:-)

3793. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:25:55 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DED83D3.7050904@ieee.org>
Source record: 130032

Tdonaly wrote:
> Sounds like a dangerous place. The number of homicides in the city of Oakland,
> CA just passed the 100 mark for the year. I don't go there any more.

What's really strange is that the murder rate in Madisonville, TX is
virtually nil and yet every house averages three or four guns. With
gun ownership at that level, shouldn't we have blood in the streets?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3794. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:27:51 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <20vquu4g4ipjf76uqoip21fsetejcs7me6@4ax.com>
Source record: 130033

On Wed, 04 Dec 2002 03:36:12 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

>On 3 Dec 2002 19:13:19 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
>wrote:
>
>>They do have money
>>even tho they may
>>be Arabic.
>>Art
>
>Hi Art,
>
>Ever so slightly more than a century ago it was a Brit that opined
>about how the brown brother is "the White Man's burden" Can you name
>him?
>
>More to the point, was he earnest or mocking?
>
>73's
>Richard Clark, KB7QHC

For those who can stand Shakespeare (no its not by him):

"Take up the White Man's burden--
In patience to abide, To veil the threat of terror
And check the show of pride; By open speech and simple,
An hundred times made plain, To seek another's profit
And work another's gain.
...
"Take up the White Man's burden,
And reap his old reward--
The blame of those ye better
The hate of those ye guard--"

73's
Richard Clark, KB7QHC

3795. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:28:36 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <uur12nijj658e4@corp.supernews.com>
Source record: 130034
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Roy Lewallen wrote:
> No, not such a good answer.
>
> If the transceiver has cut the power back to substantially less than 100
> watts, how did the wattmeter come to read 150 watts forward and 50
> reverse?

Maybe its a 250 watt rig.
-BM

3796. Re: Radiation 101 (please)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:31:59 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <2zfH9.4726$mj2.808924@news20.bellglobal.com>
Source record: 130036

"Reg Edwards"
> I've a feeling you are about to ask an
> infinitely long sequence of "why's"

As I mentioned, it only requires four or five "why?" to stump modern science. An infinitely long sequence of "why?" (even just eight) is a sure-fire sign of a religious argument.

> Try looking up an elemetary book on antennas and
> launching of radio waves. There's usually a diagram
> showing the electric lines of force surrounding a dipole.
> I wouldn't be surprised if there is such a diagram in
> an ARRL publication. If there isn't one then there
> ought to be. Technical editors please note.

Sure, I've seen that a thousand times. I just don't get the bit about the collapsing field racing back to find the screen door has already slammed shut (so to speak, er, write). I didn't know it was a timing issue. I don't recall reading about that little detail before.

All the antenna books that I have easy access to, and I've got a shelf full (ARRL, RSGB, physics), are a bit weak on answering these sorts of basic fundamentals. I'll double check though. Thanks.

3797. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:33:19 UTC
From: "Stephen C. Robbins" <srobbinsNoSPaMDUDES@netacc.net>
Message-ID: <3ded8560$1@news.netacc.net>
Source record: 130035

> JELo wrote:

> > Got a copper pipe in the ground
> > and a bronze grounding clip -
> > can I connect my 8 gauge
> > aluminum antenna ground wire
> > directly to the bronze clip
> > or do I need to do something special?
>

Go to your Home Depot store or electrical supply store and get a tube of Nomax (sp??) compound. It is used to connect aluminum wire to copper and eliminates the corrosion problem you will have otherwise.

Steve

3798. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:34:18 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <cBfH9.4727$mj2.809703@news20.bellglobal.com>
Source record: 130039

"OC_CAM's Razor"
> What's really strange is that the murder rate in
> Madisonville, TX is virtually nil and yet every
> house averages three or four guns. With gun
> ownership at that level, shouldn't we have
> blood in the streets?

It's all explained (in the gun section) at...
http://www.curtrich.com/

3799. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:38:00 UTC
From: tdonaly@aol.com
Message-ID: <20021203233800.10429.00007230@mb-mv.aol.com>
Source record: 130038

>
>>They do have money
>>even tho they may
>>be Arabic.
>>Art
>
>Hi Art,
>
>Ever so slightly more than a century ago it was a Brit that opined
>about how the brown brother is "the White Man's burden" Can you name
>him?
>
>More to the point, was he earnest or mocking?
>
>73's
>Richard Clark, KB7QHC
>

If that's Rudyard you're referring to, he had it backwards. He also wrote, "The Colonel's lady and Judy O'Grady are sisters under the skin" and "A woman is just a woman, but a good cigar is a smoke."
73,
Tom Donaly, KA6RUH

3800. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:38:07 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DED86B6.E2AE597@shaw.ca>
Source record: 130037

JELo wrote:
>
> Got a copper pipe in the ground
> and a bronze grounding clip -
> can I connect my 8 gauge
> aluminum antenna ground wire
> directly to the bronze clip
> or do I need to do something special?
>
> JELo
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

Get copper wire, get torch, get silver solder,
solder copper wire to copper ground rod! Q.E.D.
(or whatever that means!)
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3801. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:39:51 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <sc1ruus2mpml2l6n6bea8vo6m664aahaj4@4ax.com>
Source record: 130040

On Tue, 3 Dec 2002 23:11:44 -0500, "J. Harvey"
<JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote:

>...Ski Patrol...
>...Repeaters...
>...Satellites...
>...Delays...
>...LEO Satellites...
>
>"Richard Clark"
>> I've a buddy in SAR here in the Cascades
>> and his group never really came together
>> effectively until they got serious and went
>> into the grant cycle.
>
>So, how many LEO satellites did they end up with ?
>:-)
>

Hi Jeff,

Haven't the foggiest. This was 5-10 years ago when my buddy's
bloodhound group passed through various public service bands. Getting
new equipment did not seem to be a problem. They usually operated
mobile and would set up a cross band repeater in a position to match
the coverage area. Getting into the grant cycle is most successful if
you can offer a service to an emergency agency. You have to attract
their attention and find a white knight that can usher you through the
maze.

73's
Richard Clark, KB7QHC

3802. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:40:52 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DED8754.7050704@ieee.org>
Source record: 130041

Stephen C. Robbins wrote:
> Go to your Home Depot store or electrical supply store and get a tube of
> Nomax (sp??) compound. It is used to connect aluminum wire to copper and
> eliminates the corrosion problem you will have otherwise.

It's a good idea also to install a tinned copper washer between them.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3803. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:55:27 UTC
From: Eric Oyen -N7ZZT <eric.oyen@cox.net>
Message-ID: <pan.2002.12.03.21.56.35.863.23490@cox.net>
Source record: 130042

In article <uup35fta49mpc8@corp.supernews.com>, "Roy Lewallen"
<w7el@eznec.com> wrote:

> The last time I looked, the Linux PC (not server) user base was around
> 1% or of the Windows market, with a total of about 3 million vs. 240
> million for Windows. (See for example
> http://www.alliedcomputing.com/default.php?news_id=50.) But regardless
> of whether there are 3 or 30 million Linux users out there, if they were
> to buy EZNEC at the same proportional rate as Windows users, there
> wouldn't be enough to make it worthwhile for me to pursue. Unless maybe
> they'd pay $9900 or $990 per copy instead of $99?
hmmmmmm. well, introducing it at low price does seem to make the market
grow.. you never know. :)

>
> But for you and others who think the software developers are missing
> something, my advice is to go for it! Don't waste your time cursing the
> dark, invent a better light bulb! Think of all those 30 million users
> out there with their checkbooks practically open, ready to write you a
> check! NEC-2, a little GUI, and you're on your way to riches!
>
> Those 30 million people are waiting with bated breath and open wallets
> -- don't let them down!
>
> And no apology necessary for the rant. Everyone is entitled to his
> opinion. I get lots of advice on programming from people who have never
> done it, and on child rearing from childless people, too, so it's
> nothing new.
I do a lot of programming, just not C++. my forte' is bash scripting and
firewalls (and perl language scripting/programming).

btw, what compiler are you using? if its something thats C++ capable, you
already have half the battle won.

I do have linpsk working here finally (had to edit the makefile to
account for some changes in where the shared libs are kept).

in any case, I'll look forward to seeing a linux version of this program
at some point.

DE N7ZZT (Eric Oyen)
Phoenix, az

3804. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 04:58:52 UTC
From: Eric Oyen - N7ZZT <eric.oyen@cox.net>
Message-ID: <pan.2002.12.03.22.00.00.691.23490@cox.net>
Source record: 130043

In article <3DECB84F.1070204@ieee.org>, "OC_CAM's Razor"
<Cecil.A.Moore@ieee.org> wrote:

> What percentage of amateur radio operators run linux?
Not sure, however, I know its more than a few...
I belong to a local LUG (linux users group) and me and some others are
actively stumping ham radio there (we've seen a few members get their
tickets over the last year).

still, it would be an interesting poll to post.

DE N7ZZT (Eric Oyen)
Phoenix, Arizona

3805. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:04:17 UTC
From: gmz79@aol.comnospam
Message-ID: <20021204000417.05668.00009956@mb-ms.aol.com>
Source record: 130045

>Go to your Home Depot store or electrical supply store and get a tube of
>Nomax (sp??) compound. It is used to connect aluminum wire to copper and
>eliminates the corrosion problem you will have otherwise.
>
>Steve

NOALOX
Greg Z
to thine own sound be true

3806. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:04:39 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <os2ruuc57kkfoj2qhc55b5o1iq90qhfm14@4ax.com>
Source record: 130044

On 04 Dec 2002 04:38:00 GMT, tdonaly@aol.com (Tdonaly) wrote:

>>
>>>They do have money
>>>even tho they may
>>>be Arabic.
>>>Art
>>
>>Hi Art,
>>
>>Ever so slightly more than a century ago it was a Brit that opined
>>about how the brown brother is "the White Man's burden" Can you name
>>him?
>>
>>More to the point, was he earnest or mocking?
>>
>>73's
>>Richard Clark, KB7QHC
>>
>
>If that's Rudyard you're referring to, he had it backwards. He also
>wrote, "The Colonel's lady and Judy O'Grady are sisters under the
>skin" and "A woman is just a woman, but a good cigar is a smoke."
>73,
>Tom Donaly, KA6RUH

Hi Tom,

Backwards? With respect to what, when? Would it help to say his
style is Ironic?

The American response back then was a little more direct:
"We might be more willing to enter upon the imperial task if our
British cousins were not so outspoken in their eagerness to get us
to do so. Their willingness to have us share the glory of
civilizing the Orient awakens a suspicion that the glory is not
altogether a profitable one. Great Britain evidently has more than
she can carry and would like to divide the glory with us.
...
The pursuit of imperialism has raised up antagonists to Great
Britain in every part of the world; it has imposed upon her people
a heavy burden of debt and taxation; it has disturbed her politics
by the continual menace of war and thus prevented the
accomplishment of many needed reforms at home; and finally it has
brought her into a position where without an ally she is

confronted by a hostile world and is in danger of having her commerce, and perhaps even her empire, swept away at the first outbreak of war.

Rightly considered the white man's burden is to set and keep his own house in order. It is not required of him to upset the brown man's house under pretense of reform and then whip him into subjugation whenever he revolts at the treatment."

Things haven't improved much since whoever is singing the song....

73's
Richard Clark, KB7QHC

3807. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:09:21 UTC
From: I Smac <Smac61yourpanties@hotmail.com>
Message-ID: <kLOdnao1zqtlEHCgXTWcqw@comcast.com>
Source record: 130046
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"Roy Lewallen" wrote...
> If the wattmeter is reading 150 watts forward and 50 reverse, there's
> 100 watts flowing through the wattmeter, delivering 100 joules per
> second of energy to whatever's connected to the wattmeter output. Period.

Right, I think people are reading more
into my question than intended.
Whatever the status of the source,
its deflecting the wattmeter to 150W.

Now for another question:
To recap, we have a transmitter>jumper>wattmeter>feedline>load
typical 50ohm ham 2m setup lets say. The wattmeter (bird 43 for example)
reads 150W forward and 50 reflected.

How much power is dissipated by the load?

3808. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:09:22 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <fh3ruu01ttavci91h51qsmvltn9iorn4i2@4ax.com>
Source record: 130047

On Wed, 04 Dec 2002 04:38:07 GMT, Irv Finkleman <finkirv@shaw.ca>
wrote:

>Q.E.D.
>(or whatever that means!)
Thus it has been demonstrated
very apropos

3809. Re: Repeater or Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:15:05 UTC
From: gaschafer@attbi.com
Message-ID: <3ded8fa2.8514381@netnews.attbi.com>
Source record: 130048

I think the key words in the original question were "shoe string
budget".

Yes I do understand ctcss very well. I made no comment about it as
there is little he can do
about the problem and it sounded like he understood it also as he
mentioned that they had the
interference when at the top of the mountain.

Even putting a simple repeater on VHF channels may not be a simple
task. There are very few
"repeater pairs" available on VHF. It may be possible to obtain them
under "special emergency"
allocations if the volunteer group would even be qualified. At that
point I would assume he
would be consulting with "professionals"

It is difficult to diagnose the whole problem sitting behind the
computer and not seeing the whole
picture.

My suggestion of looking at the antenna as a partial solution seemed
like it may be the easiest
(and read cheapest) thing to start with. It alone may solve most of
the problem in at least being
able to communicate with somebody.

And yes upside down ground plane antennas do in fact work. A ground
plane has a takeoff
angle that is tilted up compared to a vertical dipole. So mounting it
upside down does give some
down tilt to the signal. Is this guaranteed to solve his problem? It
may help and it may not help.
Depending what is there now for an antenna. Of course there are
commercial gain antennas
available with down tilt that may perform better. But certainly not
for the "shoe string budget".

The help you may get from a "real professional" may be less than what
little I gave. I know from
first hand experience what some so called professionals do to solve
problems. Some do a good
job and some do a very poor job. I have helped many of them out with
antenna and combining
problems professionally. So I hope that my volunteer help is not too
far off base.

73
Gary K4FMX

On Tue, 03 Dec 2002 20:47:02 GMT, "Ed Senior" <eseniors@earthlink.net>
wrote:

>Gary's suggestions were practical, and technically sound.
>So the disparaging tone re his post was uncalled for at best,
>and rather rude.
>
>This IS a case where a simple "no-gain" vertical would outperform
>a fancy phased array with a pancake beam. It shouldn't matter much
>whether said vertical is a dipole, coaxial dipole, J-pole, or ground
>plane. But any location on the mountain side that you can't see from
>the antenna location may nevertheless present a coverage problem.
>
>It is not clear whether or not Gary misunderstands CTCSS; so the
>polite thing to do would be to give him the benefit of the doubt, and
>assume that he understands it OK. But the observation that CTCSS
>merely masks co-channel interference is certainly correct.
>
>Is it necessary to share frequencies with the other groups, in an
>uncontrolled fashion? Or could you (Gary) conceivably get together
>with them, and agree on a non-interfering band plan?
>
>"Crazy George" <munschNO@attglobal.net.SPAM> wrote in message
>news:3dec38a4_1@news1.prserv.net...
>> Mark:
>>
>> Unfortunately, you need a real professional to address this problem. I
>say
>> this because the suggestions Gary makes will be typical of what you get
>from
>> volunteer help. His problem analysis is correct, you need the correct
>> antennas in the right locations, but the old wives tale about hanging one
>> upside down doesn't help much. The additional scattered signal you may
>get
>> is unpredictable and results from uncontrolled pattern distortion.
>>
>> You also misunderstand the effects of CTCSS. Those other signals are
>still
>> there, and will sometimes cover up your HTs even though you no longer hear
>> them. Push the defeat switch when a unit doesn't answer, and see if there
>> isn't another strong signal already there.
>>
>> Antennas are made with engineered amounts of "downtilt" which is what you
>> need here for the top. Several manufacturers make downtilt antennas for
>155
>> MHz, but none are cheap. For the bottom, you need a professional to look
>at
>> the requirements and "lay of the land". You probably need a "keyhole" or
>> some other shaped pattern antenna for the bottom, but that is a WAG. You

>> need to find a wealthy benefactor to fund some system design engineering
>to
>> get a properly working system. Manufacturers never did that very well,
>and
>> seem to have given it up altogether these days.
>>
>> --
>> Crazy George
>> Retired telecommunications engineer back when real radios glowed in the
>dark
>> and whined when you pushed the mike button.
>> Remove NO and SPAM from return address
>>
>
>

3810. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:17:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uur3uqbqngp5a2@corp.supernews.com>
Source record: 130049
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

I Smac wrote:
> "Roy Lewallen" wrote...
>
>>If the wattmeter is reading 150 watts forward and 50 reverse, there's
>>100 watts flowing through the wattmeter, delivering 100 joules per
>>second of energy to whatever's connected to the wattmeter output. Period.
>
>
> Right, I think people are reading more
> into my question than intended.
> Whatever the status of the source,
> its deflecting the wattmeter to 150W.
>
> Now for another question:
> To recap, we have a transmitter>jumper>wattmeter>feedline>load
> typical 50ohm ham 2m setup lets say. The wattmeter (bird 43 for example)
> reads 150W forward and 50 reflected.
>
> How much power is dissipated by the load?

100 watts less feedline loss.

Roy Lewallen, W7EL

3811. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:19:18 UTC
From: tdonaly@aol.com
Message-ID: <20021204001918.10320.00007980@mb-mv.aol.com>
Source record: 130050

>
>Tdonaly wrote:
>> Sounds like a dangerous place. The number of homicides in the city of
>Oakland,
>> CA just passed the 100 mark for the year. I don't go there any more.
>
>What's really strange is that the murder rate in Madisonville, TX is
>virtually nil and yet every house averages three or four guns. With
>gun ownership at that level, shouldn't we have blood in the streets?
>--
>cheers, CAM http://www.qsl.net/w5dxp
>

Do you think, maybe, Oakland needs more guns? Where the heck is
Madisonville Texas?
73,
Tom Donaly

3812. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:20:40 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <484ruuomfi1uh1gc1q0r4bth7qrpvgh2r0@4ax.com>
Source record: 130051
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Wed, 4 Dec 2002 00:09:21 -0500, "I Smac"
<Smac61yourpanties@hotmail.com> wrote:

>"Roy Lewallen" wrote...
>> If the wattmeter is reading 150 watts forward and 50 reverse, there's
>> 100 watts flowing through the wattmeter, delivering 100 joules per
>> second of energy to whatever's connected to the wattmeter output. Period.
>
>Right, I think people are reading more
>into my question than intended.
>Whatever the status of the source,
>its deflecting the wattmeter to 150W.
>
>Now for another question:
>To recap, we have a transmitter>jumper>wattmeter>feedline>load
>typical 50ohm ham 2m setup lets say. The wattmeter (bird 43 for example)
>reads 150W forward and 50 reflected.
>
>How much power is dissipated by the load?
>
>
All of it. (Don't read too much into that!)

3813. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:25:37 UTC
From: I Smac <Smac61yourpanties@hotmail.com>
Message-ID: <nfidnQ_AqIhVDHCgXTWc3Q@comcast.com>
Source record: 130052
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"I Smac" wrote...
> Now for another question:
> To recap, we have a transmitter>jumper>wattmeter>feedline>load
> typical 50ohm ham 2m setup lets say. The wattmeter (bird 43 for example)
> reads 150W forward and 50 reflected.
>
> How much power is dissipated by the load?
I forgot to mention the load is the source of the mis-match.

3814. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:25:38 UTC
From: Eric Oyen - N7ZZT <eric.oyen@cox.net>
Message-ID: <pan.2002.12.03.22.26.47.78.23490@cox.net>
Source record: 130053

In article <jsqpuu8hfj94jlc71lsgbctkkh50dnvtji@4ax.com>, "Richard Clark"
<kb7qhc@attbi.com> wrote:

> Hi Eric,
>
> If this group is representative (and it is THE place to come speak to
> the author); you are the first in my knowledge to have asked since 1995.
> So much for the reputation of market share as a reliable argument. If
> YOU are representative of that other share, you might want to think
> about survival and the propagation of the species given the incredibly
> thin numbers by this same representation as an expression of share. The
> population "might" double in 10 years? That is absurd as a statistic of
> health given that flavor of the day computer languages disappear faster
> than that. I am fluent in at least half a dozen extinct languages
> myself - more if I count dialects.
well, actually, this group is only a representative cross-section of a
very small statistical sample. just how many hams are there on the planet
9and how many of them actually have internet accesss)?

>
> I have Linux, and I know how to emulate Windows (I also have Windows). A
> Mac? I've always been amused how those owners scramble with a system
> crash - so much so that it erases their short term memory and they
> continue to gush how stable it is. :-)
been there many times... The new OS X is a bsd sty;e kernel and appears
to be a bit more stable. still, I wonder just how much of a nitch market
apple (mac) still holds at times.

>
> You failed to mention UNIX, OS/2, (I hesitate to offer CP/M) and so on
> that still runs on machines in closets (talk about market share). You
> also forgot to recite that there are more servers running on Linux than
> any other system. Good reason too, but it fails to illuminate the fact
> that most of those servers are in the same closets as the old CP/M
> machine - not in commercial service.
well, actually, take a good look at IBM. they are doing the same thing
for linux now that they did when the computer revolution first kicked off
in the late 1970's. Then, it was open-sourcing hardware that got the ball
rolling for the home computer market. today, its the adoption of
open-source that is fueling the current innovations in server
architectures and enterprise management. Mind you, I use linux as a
matter of course for adaptive technologies (everytime I have ever tried
to get winblows to work with either a speech or braille interface, it has
failed with drastic results, yet linux just keeps chugging).

I do remember cp/m (god, am I THAT old???) and it was a good OS for its day. However, market share can be measured by any on 100 or so criteria (having worked in telemarketing, one gets a real education on how demographics can be measured).

>
> The answer is to write applications in a Network Language (not an OS
> language) like Java.
Thats a good interrim solution, but it may not work on all platforms (there are still holes in most OS support structures that may prevent such things from working correctly). still, there is the point where its not possible to have a program work everywhere.

DE N7ZZT (Eric Oyen
Phoenix, Arizona

--
Funny thing about ham radio... It doesn't taste like ham. :)

3815. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:27:22 UTC
From: Eric Oyen - N7ZZT <eric.oyen@cox.net>
Message-ID: <pan.2002.12.03.22.28.30.951.23490@cox.net>
Source record: 130054

In article <sefquucngueo3vbmh4f844pn6jq5t75rel@4ax.com>, "W.G Ewald"
<wgewald@att.net> wrote:

> Go back to rec.radio.scanner and argue with Mackey.

After you...

--
The only difference between intelligence and stupidity is:
intelligence knows its limits

3816. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:32:07 UTC
From: tdonaly@aol.com
Message-ID: <20021204003207.10320.00007982@mb-mv.aol.com>
Source record: 130055

>
>Hi Tom,
>
>Backwards? With respect to what, when? Would it help to say his
>style is Ironic?
>
>The American response back then was a little more direct:
> "We might be more willing to enter upon the imperial task if our
> British cousins were not so outspoken in their eagerness to get us
> to do so. Their willingness to have us share the glory of
> civilizing the Orient awakens a suspicion that the glory is not
> altogether a profitable one. Great Britain evidently has more than
> she can carry and would like to divide the glory with us.
> ...
> The pursuit of imperialism has raised up antagonists to Great
> Britain in every part of the world; it has imposed upon her people
> a heavy burden of debt and taxation; it has disturbed her politics
> by the continual menace of war and thus prevented the
> accomplishment of many needed reforms at home; and finally it has
> brought her into a position where without an ally she is
> confronted by a hostile world and is in danger of having her
> commerce, and perhaps even her empire, swept away at the first
> outbreak of war.
>
> Rightly considered the white man's burden is to set and keep his
> own house in order. It is not required of him to upset the brown
> man's house under pretense of reform and then whip him into
> subjugation whenever he revolts at the treatment."
>
> Things haven't improved much since whoever is singing the song....
>
>73's
>Richard Clark, KB7QHC
>
Hi Richard,
Ironic or not, in the nineteenth century, dark skinned people were the bearers,
and
light skinned people were their burden. You're right, things haven't improved
much,
but they have changed. Some of those brown-skinned people have the bomb.
73,
Tom Donaly

3817. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:37:48 UTC
From: gaschafer@attbi.com
Message-ID: <3ded94f7.9879772@netnews.attbi.com>
Source record: 130056

Hi Roy,

I guess I am one of those guilty ones in regards to skin depth
definition.

What would the current distribution look like in material that was
just one skin depth thick?

Thanks
Gary K4FMX

On Mon, 02 Dec 2002 12:01:03 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Ian has made a very important point here which needs to be emphasized,
>since it addresses a real problem in understanding skin depth.
>
>You might have read on this newsgroup or elsewhere that skin depth is
>"defined" as the depth at which the current density drops to 1/e (about
>37%) of its value at the surface. I hope I wasn't one of the guilty
>parties that made this statement -- if so, I apologize and retract it. I
>think this misstatement is the cause of some of the misunderstanding of
>the meaning of the term.
>
>It would be correct to say that the skin depth is defined as the depth
>at which the current drops to 1/e of its value at the surface *in an
>infinitely thick, homogeneous piece of the specified material*.
>Therefore the skin depth, as Ian points out, is an intrinsic property of
>the material (at a given frequency, since skin depth is also a function
>of frequency). This means that the current density doesn't necessarily
>drop to 37% of the surface value at one skin depth in all shapes and
>thicknesses of the material -- only in material that's thick enough. The
>skin depth remains the same regardless of the size or shape of the
>material sample; the shape of the current penetration - vs - depth curve
>does not. However, it does follow the nice exponential and easily
>calculated decay any time the conductor is at least several skin depths
>thick (and the curvature of the surface is small on the scale of the
>skin depth).
>
>As I and others have pointed out, at HF and above, the skin depth is
>very shallow in good conductors, so the assumption that a physically
>useful conductor is at least several skin depths thick is nearly always
>a good one. And the current density will decay to 1/e its surface value
>at a depth of one skin depth provided that this assumption is valid.
>However, this is not the *definition* of skin depth.
>

>Roy Lewallen, W7EL
>
>Ian White, G3SEK wrote:
>> Art Unwin KB9MZ wrote:
>>
>>>> If the material is only 3 skin depths thick (or 6 if current flows on
>>>> both sides) then the error in the calculated RF resistance is only 5% -
>>>> and that's hardly "out the window".
>>>
>>
>>> Now we are getting to the nitty gritty, it is suggested that skin
>>> depths are an exact science and I question this. If I use a material
>>> for low frequencies that is as thin or thinner than a stated 'SKIN
>>> DEPTH' then there must be a change in thinking. If we are to agree
>>> (and I think we do) then there must be a large change in the so called
>>> skin depth after all the material started off at the same thicknes!
>>
>>
>> This is correct.
>>
>> But you are wrong to say that "skin depth is an inexact science". The
>> science is very exact. The situation when cross-sections become very
>> small is totally understood.
>>
>> The problem is with language. The only reliably correct language of
>> science is mathematics. Any other spoken or written language is an
>> approximation, and occasionally falls down.
>>
>> The term "skin depth" is always used to mean an inherent physical
>> property of the material. It is calculated exactly from two other
>> inherent material properties, resistivity and permeability (although it
>> also varies with frequency). Used in this sense, "skin depth" is
>> independent of the actual physical dimensions of the conductor.
>>
>> If you read Roy's most recent posting, that is exactly how he uses the
>> term; and that is perfectly correct, because that's how the community of
>> engineers and scientists has agreed to use those two words.
>>
>> Thus you may hear such statements as "This gold plating isn't as thick
>> as the skin depth." This makes perfect sense because "skin depth" is
>> being used in its understood meaning: one of the inherent material
>> properties of gold.
>>
>>
>

3818. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:50:08 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <4l5ruukj6isocgb9ulaui8t60di92dkvfn@4ax.com>
Source record: 130057

On 04 Dec 2002 05:32:07 GMT, tdonaly@aol.com (Tdonaly) wrote:

>Hi Richard,
>Ironic or not, in the nineteenth century, dark skinned people were the bearers,
>and
>light skinned people were their burden. You're right, things haven't improved
>much,
>but they have changed. Some of those brown-skinned people have the bomb.
>73,
>Tom Donaly

Hi Tom,

And it is to be found in Pakistan. Think we have troops in
Afghanistan simply to look for Ossama? We are going to be there for
years fulfilling Kipling's 1899 prophecy (even if an inverted ironic
one).

73's
Richard Clark, KB7QHC

3819. 1/4 vertical versus 1/2 dipole questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:52:08 UTC
From: adam.white@sbcglobal.net
Message-ID: <3ded8fa1.560967789@news.sbcglobal.net>
Source record: 129970

I recently passed my General exam and so am just getting into DXing. My first priority is to establish communications with my brother who is on a sailboat off the Florida coast right now. He ranges between the Gulf of Mexico, the Caribbean, and the East Coast. I'm in a suburb of Fort Worth, Texas so that makes a distance of between 500 and 1500 (or so) nautical miles between us. I have an Icom 706MIIG and I'm trying to set up an inexpensive antenna in my back yard that will work for the purpose stated above. I'd appreciate any thoughts on the following series of questions ...

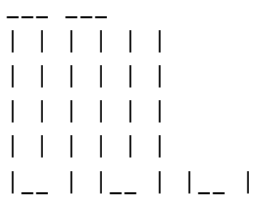
I have a 1/2 wavelength dipole for 20 meters made from #14 copper wire and using a Balun. I used it successfully at my prior home, but I have not yet mounted it at my new home. In fact, I'm evaluating possible locations now. Do you think I'll have better performance with it mounted 20' high with only 50' of (coax) feedline -- or a location 30' high which requires 100' of feedline? Assuming I get good performance from either of these locations, wonder how successful I'll be in general making contact on a daily basis with someone who is, say, 1000 miles distant?

Also, how much effect would a large (60' tall by 40' diameter dripline) american elm tree have if it was located 60' away from the dipole and in-line with my desired tranmission direction?

Assuming I have a reasonable SWR on 20 meters, there's no reason for me to use an antenna tuner, right? But even so, could I use that same wire WITH an antenna tuner to succesfully work other bands?

My last question is a little more complex ... This house has a patio area that is about 30' square. At ground level the decking is made from 2" * 6" boards. The area is also covered by a "roof" made of 2" * 10" boards. These roof boards are not laid adjacently, edge-to-edge. Their edges WOULD touch, if they were flat (i.e., parallel with the ground) but instead they are set on edge at an angle of about 45 degrees from the ground so that the sunlight goes through the boards in the morning but not in the afternoon (picture a venitian blind parallel with the ground, with the shutters part-way open). Here's the interesting part about this structure: on top of the roof boards there is a piece of steel cable roughly #14 (to help hold them down during windy conditions, I guess). It starts just east of the NW corner the roof and parallels the West edge for 30' all the way to the South end. There it takes a 90 degree turn to the East and runs about 4 feet. Then it takes a 90 degree turn back to the north, paralleling the first "leg." It runs all the way back to the North edge, turns 90 degrees east for 4', then turns south again. It continues "snaking"

in this fashion until it covers the whole area. There are six north-south "legs" paralleling each other, seperated by 4 or 5' between each leg. The cable is one continuous length. And the roof is about 10 above the ground. Viewed from above it would look something like:



OK ... so with that in mind ... I wonder if I can either use that wire (or a part thereof) as an antenna all by itself or else maybe use it as a counterpoise for a 1/4 wavelength vertical? On the latter subject , my understanding from the ARRL antenna book is that one can build a 1/4 wavelength vertical by raising the vertical radiating wire straight up 1/4 wavelength high. Then place a number of radials each 1/4 wavelength long beneath the vertical. So ... do you think I could raise my 1/4 wavelength antenna above this patio roof and then use incorporate the cabling into my radials? Would this improve the performance of the antenna? Could I use ONLY the existing cable as the counterpose, maybe adding only 4 radials (one to each corner)? If I lay the radials on top of the existing cable, would I connect them where they cross? Given my narrow objectives at present, I'm just trying to figure out the cheapest and quickest solution.

Thanks for your time.

Adam
KD5QAE

3820. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 05:57:13 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DED9939.7030001@ieee.org>
Source record: 130058
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

I Smac wrote:
> Now for another question:
> To recap, we have a transmitter>jumper>wattmeter>feedline>load
> typical 50ohm ham 2m setup lets say. The wattmeter (bird 43 for example)
> reads 150W forward and 50 reflected.
>
> How much power is dissipated by the load?

100 watts plus or minus 5% of full scale minus the losses in the tuner and coax.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3821. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 06:01:25 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DED9A35.1030801@ieee.org>
Source record: 130059

Tdonaly wrote:
> Where the heck is Madisonville Texas?

Halfway between North Zulch and Midway. :-)
(About 90 miles north of Houston on I-45.)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3822. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 06:17:41 UTC
From: Scott <scott2rp789@netscape.net>
Message-ID: <3DED9E05.3D37EA25@netscape.net>
Source record: 130060

This company was porting their SuperNEC product to Linux - I don't know what
ever happened there.

http://www.poynting.co.za/

Scott.

Eric Oyen - N7ZZT wrote:

> I am wondering..
> is there a linux version of this type of program (antenna modeling, etc)?
>
> it apears that the ftp site you listed below contains software strictly
> for the windows users community. I'd apreciate some input into this.
>
> thanks.
>
> DE N7ZZT (Eric Oyen)
> Phoenix, az. USA
>
> In article <uunfk23bjlb8ea@corp.supernews.com>, "Roy Lewallen"
> <w7el@eznec.com> wrote:
>
> > Steve has backed up his opinions with several papers in professional
> > publications. In addition, he's furnished some simple examples of
> > randomly-bent wire antennas whose properties are equal or superior to a
> > fractal antenna widely used to illustrate the fractal technique. EZNEC
> > users can download EZNEC description and antenna notes files with these
> > examples from ftp://eznec.com/pub/MI2/. Please see the 0notes.txt file
> > in that directory for descriptions of the available examples.
> >
> > Roy Lewallen, W7EL

3823. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 06:39:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uur8pqsrvvtm40@corp.supernews.com>
Source record: 130061
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

I Smac wrote:
> "I Smac" wrote...
>
>>Now for another question:
>>To recap, we have a transmitter>jumper>wattmeter>feedline>load
>>typical 50ohm ham 2m setup lets say. The wattmeter (bird 43 for example)
>>reads 150W forward and 50 reflected.
>>
>>How much power is dissipated by the load?
>
> I forgot to mention the load is the source of the mis-match.

Doesn't matter.

Roy Lewallen, W7EL

3824. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 07:28:22 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <6lbruugqegah8m1r6ovp4pon2mrlpb7fl5@4ax.com>
Source record: 130062
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Wed, 4 Dec 2002 00:25:37 -0500, "I Smac"
<Smac61yourpanties@hotmail.com> wrote:

>
>"I Smac" wrote...
>> Now for another question:
>> To recap, we have a transmitter>jumper>wattmeter>feedline>load
>> typical 50ohm ham 2m setup lets say. The wattmeter (bird 43 for example)
>> reads 150W forward and 50 reflected.
>>
>> How much power is dissipated by the load?
>I forgot to mention the load is the source of the mis-match.
>
All of it (sheesh).

73's
Richard Clark, KB7QHC

3825. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 07:31:14 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <787ruuk83q7f937fk4liqjs6r7n4uis0ir@4ax.com>
Source record: 130063

On Mon, 02 Dec 2002 12:01:03 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Ian has made a very important point here which needs to be emphasized,
>since it addresses a real problem in understanding skin depth.
>
>You might have read on this newsgroup or elsewhere that skin depth is
>"defined" as the depth at which the current density drops to 1/e (about
>37%) of its value at the surface. I hope I wasn't one of the guilty
>parties that made this statement -- if so, I apologize and retract it. I
>think this misstatement is the cause of some of the misunderstanding of
>the meaning of the term.
>
>It would be correct to say that the skin depth is defined as the depth
>at which the current drops to 1/e of its value at the surface *in an
>infinitely thick, homogeneous piece of the specified material*.

This is becoming overbalanced by half.

For practical answers to theoretical angst, the "Reference Data for
Radio Engineers" often cuts to the heart of the matter:
"The thickness of the conductor is assume to be several
(PERHAPS at least three) times the skin depth."

What remains is the standard usage of 1/e.

73's
Richard Clark, KB7QHC

3826. Re: Antenna Placement

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 07:37:45 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0212032337.5f7a816a@posting.google.com>
Source record: 130064

"Ironhead" <slipkid@kwiknet.net> wrote in message
news:<GpSG9.9$jRSf.3145899@news2.randori.com>...
> How far apart should two vertical antennas be placed. I have an HF antenna
> already in place but need to put up a 2M antenna too. Any help is
> appreciated.

Hi Ironhead,
if two antennas are for the same band, optimum separation is achieved
at least at 10*wavelength distance ... a mile for the top band :-(If
they are for different bands (as in your case), they can be much
closer. Put them as far as possible and reasonable in practice.

73 de Ivan OK1SIP

3827. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 08:15:12 UTC
From: Eric Oyen - N7ZZT <eric.oyen@cox.net>
Message-ID: <pan.2002.12.04.01.16.20.798.27375@cox.net>
Source record: 130065

In article <3DED9E05.3D37EA25@netscape.net>, "Scott"
<scott2rp789@netscape.net> wrote:

> This company was porting their SuperNEC product to Linux - I don't know
> what ever happened there.
>
> http://www.poynting.co.za/
>
> Scott.
>
Thanks,
I'll have to check it out... not sure if they ever got it off the ground.

DE N7ZZT (Eric Oyen)
Phoenix, Arizona

--
the difference between intelligence and stupidity is that intelligence
has its limits.

3828. Re: Wire antennas for HF (new and clueless about antennas!)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 08:24:35 UTC
From: Eric Oyen - N7ZZT <eric.oyen@cox.net>
Message-ID: <pan.2002.12.04.01.25.44.60.27375@cox.net>
Source record: 130066

In article <y2zG9.202677$QZ.29900@sccrnsc02>, "Jackie L."
<buzzygirl@remove.attbi.com> wrote:

> Hello,
>
> I'm new to the hobby (was licensed 10/02) and am in the process of
> learning CW so I can get a General upgrade within the next 6-8 weeks. I
> have not bought an HF rig yet, but I'm thinking about the IC 718, which
> looks to be nice and easy for a beginner to use, I don't need lotsa
> bells 'n whistles myself. I'll buy a separate VHF/UHF rig for local
> work, and already know what antenna I'm getting for that rig.
hey! welcome to the fraternity.as for the equipment, go with what you can
easily learn on. all those "features" are nothing more than expensive
window dressing.

>
> The issue I'm having is this... I've done a thorough search of the
> environs around my house, and have come to the conclusion that the only
> type of antenna I will be able to use will be a longwire type for HF.
> Why?
can you describe your property. if there are a lot of trees, you might
consider something other than just a long wire (loops can work).

>
> Well... my place abuts a park to the south, I mean just 10 feet off my
> deck, there's park property- ergo, lots of trees. There is no room on my
> roof for a beam or vertical either as a result of overhanging trees (I
> don't own the house, the owner won't let me put up an antenna there
> anyway). A dipole coming off a tree won't work, because I've got kids
> that play in the yard, and they will for sure run into it where it'll be
> coming into the house- high-traffic play area. The only other spot I
> could put up a vertical would be too close to powerlines. I have no
> attic to speak of other than a puny crawlspace (I live in a rambler).
> So.
hmmmmm. dicey that.

>
> Here's my question- if I were to buy a long-wire type antenna and snake
> it along the roofline or gutters, and bought an automatic antenna tuner,
> could I possibly get enough signal push and pull to make it worthwhile?
> I don't know much about antennas, and the stuff in the ARRL antenna book
> I borrowed from a friend is going right over my head now (no pun
> intended- I do intend to learn more about this subject, but right now,
> that book's too advanced for me).
a rambler? those are pretty much all metal. not good for an antenna to be

close to that. you might try a short whip with a load (like slapping an 8 foot firestick antenna on the end of a short run of pole or wire.

>
> I have no CC&R's or other restrictions to deal with, other than living
> in a heavily treed-and-powerlined area. Also, any suggestions on good
> websites on antennas for absolute newbies to build would be most
> welcomed.
well, there is always www.arrl.org or www.wrz.com

have a nice one..

DE N7ZZT (eric Oyen)
Phoenix, Arizona
--
the difference between intelligence and stupidity is that intelligence has its limits.

3829. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 09:12:22 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <mtgksa.fc.ln@mylinuxbox.net>
Source record: 130007

In article <pan.2002.12.03.01.41.19.554.9483@cox.net>, Eric Oyen - N7ZZT wrote:
> ok, lets refine this a bit....
>
>
> In article <uunlrgs59laq0e@corp.supernews.com>, "Roy Lewallen"
><w7el@eznec.com> wrote:

>> I suggest you take a look at http://www.qsl.net/wb6tpu/swindex.html.
>> You'll find free antenna analysis software there compiled for Linux by
>> people who have done it as a labor of love. NEC-2, which is free, will
>> produce the same answers as EZNEC and similar software, although with a
>> somewhat more cumbersome user interface.

> ah. thanks for the info.... sorry for my rant up above.

I use NEC-2 and Xnecview by Pieter-Tjerk de Boer (PA3FWM).
See: http://wwwhome.cs.utwente.nl/~ptdeboer/ham/xnecview/

MMANA is a freeware program based on MININEC. MMANA was
written for MS Windows by JE3HHT Makoto Mori and others.
It runs very well under WINE (Windows emulator) for
Linux and other UNIX based systems.
http://www.winehq.com (from memory?).

73, Ed. EI9GQ.

--
Remove 'X' to reply via e-mail.
http://homepage.eircom.net/~ei9gq
Linux 2.4.20

3830. Fractal Marketing Techniques

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 09:19:04 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <o4iruugbl99vsia62qqh0df6pte0qsibe1@4ax.com>
Source record: 130067

On Wed, 04 Dec 2002 02:46:23 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

>
>Its a shame that Apple decided to pull the plug on its clones, their
>market share would've been on par by now but they decided to use
>fractal marketing techniques.
>
>73's
>Richard Clark, KB7QHC

Richard,

That's a very interesting visual image, if you mean an iterative
mathematical process applied to marketing.

If you're alluding to the commercial activities here on the
newsgroup ("disruptive technology!"), it's a very bizarre picture.

WE

3831. Re: Disruptive Technolgies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 09:22:24 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <siiruucdbncvghdo7crn6m3dp8mn8k357e@4ax.com>
Source record: 130068

On 04 Dec 2002 01:28:34 GMT, k1bqt@aol.com (Rick Littlefield) wrote:

>>Disruptive technologies always pose threats of change.<
>
>Disruptive Technologies! I love it. Is it registered? Damn, I want that name!
>
>Rick K1BQT

It's already an overworked phrase. Like "paradigm shift", it's used
alot by people blowing smoke.

3832. Re: tempest infos request

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 09:29:30 UTC
From: "W.G Ewald" <wgewald@att.net>
Message-ID: <61jruu4vm49005najothdsr90nhcmeuq0a@4ax.com>
Source record: 129969

On Wed, 04 Dec 2002 01:47:45 GMT, artie <silli_artie@hotmail.com>
wrote:

>In article <pan.2002.12.03.08.15.23.143031@tuxfamily.org>, vincent
><v@tuxfamily.org> wrote:
>
>> hello guys,
>>
>> have you got some infos or links about the tempest technique .
>>
>> I'd like to know how it works.
>>
>> thx in advance
>>
>> viny
>
>Look at:
>
>http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep1110-3-2/toc.h
>tm

" Approved for public release; distribution is unlimited. "

That must mean it's outdated technology.

Historically interesting, though.

3833. Re: 1/4 vertical versus 1/2 dipole questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 12:58:17 UTC
From: 'Doc <ltdoc@yahoo.com>
Message-ID: <3DEDFBE9.3060308@yahoo.com>
Source record: 129971

Adam,
Since you already have a 20 meter dipole why
not put it up and see how things go. I don't
think there would be a noticeable difference in
signal because of a difference of 50 feet of feed
line, so try either/both locations for the dipole.
As for using a 1/4 wave vertical and the cable
above your patio, it would probably work. Until
you try it, I don't think anyone can tell you if
it will work well or not, or better than the dipole,
or not. Sort of a definite 'maybe'.
There's nothing that says that you can't change
your antenna at some later date, so try out different
locations etc. (Clear all this with your 'significant-
other', of course!)
You should only use a tuner if a tuner is required.
If you don't need to, there's no particularly good
reason to do so. If you have a decent match without
a tuner, don't use one. If you're going to try to use
the 20 meter dipole for other bands, you will have to use
a tuner, or some other means of matching impedance's. It
can certainly be done, but the results aren't always what
you'd want them to be. Another one of those 'try it and
see' things.
Good luck and have fun...
'Doc

3834. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 13:27:43 UTC
From: "Stephen C. Robbins" <srobbinsNoSPaMDUDES@netacc.net>
Message-ID: <3dee029f$1@news.netacc.net>
Source record: 129972

"greg z" <gmz79@aol.comnospam> wrote in message
news:20021204000417.05668.00009956@mb-ms.aol.com...
> ----------
> NOALOX
> Greg Z

Thanks Greg. I was having a senior moment :-)

Steve

3835. Re: Aluminum in San Diego area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 13:45:38 UTC
From: Luke <luke@nospamming.com>
Message-ID: <3DEE0700.5E9E1AE1@nospamming.com>
Source record: 129973

try www.mcmaster.com

BIG selection of all hardware stuff and wealth of knowledge on items.

73 luke

Stahr wrote:

> Could somebody tell me where, in the San Diego area, I can find some
> aluminum to build a simple 10m dipole?
>
> Thank you
> --
>
> 73 de:
> Dennis Stahr - W6NYC
>
> http://www.qsl.net/w6nyc/
> Take out "the trash" when return emailing

3836. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 13:49:04 UTC
From: richardharrison@webtv.net
Message-ID: <14671-3DEE07D0-6@storefull-2315.public.lawson.webtv.net>
Source record: 129975

Richard Clark, KB7QHC wrote:
"Things haven`t improved much since, whoever is singing the song..."

The war is between ideas which result in actions, and now it is about oil.

The 20th century brought changes. Now the economy is worldwide and we have instant communications.

Hollywood changed the world. The world saw the West and wants what it saw. Planned propaganda and force aren`t much needed to reshape the world in the Western image.

Force is required for defense and to enforce our will.

Best regards, Richard Harrisom, KB5WZI

3837. Re: 1/4 vertical versus 1/2 dipole questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 13:57:23 UTC
From: Ed Juge/NM <ed@juge.org>
Message-ID: <%YnH9.22729$NV.467233@news.direcpc.com>
Source record: 129974

I concur with Doc's comments. Doubtful you need to worry at all about trees or buildings unless your antenna comes in contact with one or more of them (NOT good). People tend to worry too much about the "small stuff" like this but experience will show most of it is relatively immaterial.

I'm a dedicated vertical user myself, and at 1,000 miles usually have better signals on a vertical. HOWEVER... a good vertical installation with a good radial system under it is 20 times the work of installing a good dipole and the difference I would expect is maybe one or two S-units at best.

Unless it just doesn't work for you, I'd stick to the dipole for now. Go for the closer, lower location. There probably won't be any noticeable difference from height, so why spend the extra bucks on another 50' of feed line or the effort to deal with the feed line where it won't be in your way?

Good luck... Ed, W5EJ

"'Doc" <ltdoc@yahoo.com> wrote in message news:3DEDFBE9.3060308@yahoo.com...
> Adam,
> Since you already have a 20 meter dipole why
> not put it up and see how things go. I don't
> think there would be a noticeable difference in
> signal because of a difference of 50 feet of feed
> line, so try either/both locations for the dipole.
> As for using a 1/4 wave vertical and the cable
> above your patio, it would probably work. Until
> you try it, I don't think anyone can tell you if
> it will work well or not, or better than the dipole,
> or not. Sort of a definite 'maybe'.
> There's nothing that says that you can't change
> your antenna at some later date, so try out different
> locations etc. (Clear all this with your 'significant-
> other', of course!)
> You should only use a tuner if a tuner is required.
> If you don't need to, there's no particularly good
> reason to do so. If you have a decent match without
> a tuner, don't use one. If you're going to try to use
> the 20 meter dipole for other bands, you will have to use
> a tuner, or some other means of matching impedance's. It
> can certainly be done, but the results aren't always what
> you'd want them to be. Another one of those 'try it and
> see' things.
> Good luck and have fun...
> 'Doc
>

>
>
>

3838. Re: Problems With EDZ Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 14:45:04 UTC
From: "William M. Bickley" <bickley@dmv.com>
Message-ID: <uus57gss82lo49@corp.supernews.com>
Source record: 129976

Dick:

I've ordered a W9INN remote balun, and will try to use that in combination with a minimum length of coax. Am going to try to get the outboard end of the antenna up a bit higher (off the trees), too, but have yet to figure out precisely how.

I guess this beautiful Johnson Matchbox will go unused a while longer....

Bill W2ET

"Dick Carroll" <dixie@townsqr.com> wrote in message news:3DED7F0A.6A20B2C2@townsqr.com...
>
>
> It appears from his original message that his "balanced antenna" really isn't
> balanced at all, given that one side of it touches pine tree limbs. That causes
> unbalance will surely cause common mode radiation on the twin lead which *will*
> induce into the house AC wiring as the feedline transits through the house to the
> shack.
>
> I'd try a piece of good coax long enough to reach well outside the house, with
> a good choke balun installed just before it transitions to the ladderline.
>
> Dick
>

3839. Re: 1/4 vertical versus 1/2 dipole questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 15:01:39 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Csycnd6WoLbIhXOgXTWc3Q@comcast.com>
Source record: 129977

"Adam White" <adam.white@sbcglobal.net> wrote in message
news:3ded8fa1.560967789@news.sbcglobal.net...
. Do you think I'll have better performance
> with it mounted 20' high with only 50' of (coax) feedline -- or a
> location 30' high which requires 100' of feedline? Assuming I get
> good performance from either of these locations, wonder how successful
> I'll be in general making contact on a daily basis with someone who
> is, say, 1000 miles distant?

Go with the greater height. 100 feet of coax at 20M is no big deal, so long
as you use decent coax. LMR240 works great, and it is 1/4 inch.
>
> Also, how much effect would a large (60' tall by 40' diameter
> dripline) american elm tree have if it was located 60' away from the
> dipole and in-line with my desired tranmission direction?

The elm is a complete NOOP. I live essentially in a woods of 80-100 foot
oak and tulip trees, and they cause no problem with a tribander at 40 feet.
Duce Island came back to me on the third call. Why not put the antenna up on
the elm?
>
> Assuming I have a reasonable SWR on 20 meters, there's no reason for
> me to use an antenna tuner, right? But even so, could I use that same
> wire WITH an antenna tuner to succesfully work other bands?

You might want to consider 40M in addition to 20. Maybe 2 dipoles at a
common feed point, but it would take some pruning. You would have to adjust
the 40 M first. I have 40, 17, and 12 M off the same feedline up about 60
feet. I do not own an antenna tuner.

Tam/WB2TT
>
>

3840. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 15:06:53 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asl5m6$lf7$1@slb4.atl.mindspring.net>
Source record: 129978
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

I Smac:

[snip]
> > How much power is dissipated by the load?
>
> 100 watts plus or minus 5% of full scale minus the losses in the tuner and
coax.
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

Yep everyone is correct!

100 Watts out of the transmitter, 100 Watts [minus small losses] into the
load, and...

Ba da bum...

that so called "reflected power" must then be just a fiction!

Why the hell do we need "reflected power"

And... in the words of the imortal Jackie Gleason... "away we go!"

--
Peter K1PO
Indialantic By-the-Sea, FL

3841. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 15:10:25 UTC
From: JELo <jelo@nospammail.com>
Message-ID: <3dee1af1_4@corp.newsgroups.com>
Source record: 129979

> . . . Q.E.D.

quod erat demonstrandum

which was to be demonstrated or proved

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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3842. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 15:18:47 UTC
From: JELo <jelo@nospammail.com>
Message-ID: <3dee1ce6$1_4@corp.newsgroups.com>
Source record: 129981

> -----------
> NOALOX
> Greg Z
> to thine own sound be true

Looked around the net and found the stuff
but don't see any info about using it to solve
dissimilar metals problems? Is stopping the
aluminum oxidation enough to make things
right? JELo

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3843. Re: receive-only antenna for FT-920

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 15:18:50 UTC
From: Robert Spooner <rls19@psu.edu>
Message-ID: <3DEE1CDA.7000407@psu.edu>
Source record: 129982

Benson,

If you visit the Polyphaser web site, they have a lot of information there.

73,
Bob AD3K

Benson Wills wrote:
> Thanks, Bob. I think I can get a piece of coax to the outside, then get
> a wire up into a nearby tree.
>
> I will have a ground rod very near where the coax comes into the house.
> What is the wisdom regarding static/lightning protection? Put a
> Polyphaser-type device adjacent to the rod?
>
--
Robert L. Spooner
Registered Professional Engineer
Associate Research Engineer
Intelligent Control Systems Department

Applied Research Laboratory Phone: (814) 863-4120
The Pennsylvania State University FAX: (814) 863-7841
P. O. Box 30
State College, PA 16804-0030 rls19@psu.edu

3844. Re: receive-only antenna for FT-920

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 15:19:29 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <q7-dnVRaWqUegXOgXTWcpw@comcast.com>
Source record: 129980

Benson,

The wavelengths are so long here, that you might not want to bother with the coax, so long as the radio is grounded, as through the power plug, or better, a ground connection to a cold water pipe. The coax will reduce noise pickup from the house, but will act as a capacitor to ground. With a 50 foot of antenna, your SWR at 1000KHz will be about 100:1. Without coax, the whole wire , starting at the back of the 920, will be part of the antenna.

Tam/WB2TT
"Benson Wills" <blackhole@doozy.us> wrote in message
news:blackhole-1364D0.12055103122002@corp.supernews.com...
> Thanks, Bob. I think I can get a piece of coax to the outside, then get
> a wire up into a nearby tree.
>
> I will have a ground rod very near where the coax comes into the house.
> What is the wisdom regarding static/lightning protection? Put a
> Polyphaser-type device adjacent to the rod?
>
> In article <3DECCAC0.4000601@psu.edu>, Robert Spooner <rls19@psu.edu>
> wrote:
> > If you can possibly do it, an outdoor antenna is the way to go. Barring
> > that, a loop antenna for the MW broadcast band and a wire for SW
> > broadcast as high as possible and as long as possible would be good. If
> > you have a particular band you are interested in and can put up a
> > half-wave dipole for that band, you should have good results. Indoor
> > antennas are noisy.
>
> --
> E-mail replies: change 'blackhole' to 'usenet3'

3845. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 15:38:52 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEE218C.4080002@ieee.org>
Source record: 129983
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Peter O. Brackett wrote:
> Why the hell do we need "reflected power"

Without reflected energy, I could not achieve a no-tuner match
with my 80m dipole on all HF bands. Without reflected energy,
there would be no SWR circle on a Smith Chart. Without reflected
energy, I would always see 450 ohms looking into my 450 ohm
transmission line. My transmitter doesn't like 450 ohms.
--
cheers, CAM http://www.qsl.net/w5dxp

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3846. Re: Disruptive Technolgies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 15:40:47 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asl7lo$4d$1@slb6.atl.mindspring.net>
Source record: 129984

Disruptive Technologies indeed!

There are imany examples of disruptive technolgoies which were widely celebrated by the lay public, I list but a few which might be so considered, along with the names of their revered inventors.

The invention of the steam engine [Watt] was, the invention of the telegraph [S. F. B Morse] was, the perfection of wireless was [earned amateur radio operator Guglielmo Marconi a Nobel Prize], the invention of the triode vacuum tube [Lee DeForest] was, the invention of selective filter networks [Campbell] was, the invention of FM [Major Edwin Armstrong] was, the invention of the transistor [Shockley, Bardeen & Britain] was, the discovery of the mathematical formula for channel capacity [Shannon] was, the invention of the integrated circuit [Jack Kilby, Robert Noyce] was, the invention of the Yagi-Uda antenna was... etc...

The important thing to note here is that none [None!] of these protaganists were known as unabashed self-promoters, sensation seekers or were ever found to be "reckless with the truth". Some, perhaps Armstrong from the above list, were not to enjoy their fame in their own lifetim.] but all were eventually recognized by the lay press and the lay public and widely celebrated as the inventors of disruptive technologies.

But fractal antennas, disruptive?

An interesting approach to linear loading, but not disruptive, perhaps the fractal geometry disrupts the continuity of their elements, but...

Where are the earthshaking news stories? The calls for knighthood, the Nobel Prizes, etc...

What???

All get here on this august USENET NG is boyish boasting and often unsubstatiated and somtimes outlandish claims from Dr. Cohen, with no earnest attempt to place any of the work on fractal geometry antennas [by anybody] in perspective.

Disruptive indeed. tsk tsk tsk... for shame Dr. Cohen how dare you to attempt to include yourself in the Pantheon of the Greats of electro-technology!

From the responses to his overtures for praise and validation on this NG it seems that Dr. Cohen is not revered but reviled.

Why?

Could it be that one of the main attributes of disruptive technologies is that they stand on their own and need no promotion by their inventors?

It seems that Dr. Cohen simply can't wait! Dr. Cohen seems to indicate that *he* should be placed in the august company of those listed in the Pantheon above, yet he can't seem to meet the basic requirment to be so honored. Patience and acceptance.

It seems more likely that *he* is the single most disruptive thing about antennas which utilize a fractal geometry, not the so-called technology itself.

It's really very sad, since the public awareness of any small benefits achieved in niche applications by utilizing a fractal geometry for antenna design have probably now been completely washed away by the useless controversy generated by Dr. Cohen's selfish impatient self-promotion.

Disruptive technology indeed!

--
Peter K1PO
Indialantic By-the-Sea, FL

"W.G Ewald" <wgewald@att.net> wrote in message news:siiruucdbncvghdo7crn6m3dp8mn8k357e@4ax.com...
> On 04 Dec 2002 01:28:34 GMT, k1bqt@aol.com (Rick Littlefield) wrote:
>
> >>Disruptive technologies always pose threats of change.<
> >
> >Disruptive Technologies! I love it. Is it registered? Damn, I want that name!
> >
> >Rick K1BQT
>
> It's already an overworked phrase. Like "paradigm shift", it's used
> alot by people blowing smoke.
>
>
>

3847. Re: 1/4 vertical versus 1/2 dipole questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 15:44:05 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEE22C5.9030308@ieee.org>
Source record: 129985

Adam White wrote:
> Assuming I have a reasonable SWR on 20 meters, there's no reason for
> me to use an antenna tuner, right? But even so, could I use that same
> wire WITH an antenna tuner to succesfully work other bands?

Using coax, most of your power on the other bands would be dissipated
as heat in the coax. I use a 33 ft. dipole, resonant on 20m, to work
all bands 20m-10m. I feed it with 300 ohm ladder-line and vary the
length of the feedline to achieve a match without a tuner.
--
cheers, CAM http://www.qsl.net/w5dxp

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3848. Re: Disruptive Technolgies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 15:44:38 UTC
From: fractenna@aol.com
Message-ID: <20021204104438.18569.00000436@mb-fp.aol.com>
Source record: 129986

>
>Disruptive Technologies indeed!
>
>There are imany examples of disruptive technolgoies which were widely
>celebrated by the lay public, I list but a few which might be so considered,
>along with the names of their revered inventors.
>
>The invention of the steam engine [Watt] was, the invention of the telegraph
>[S. F. B Morse] was, the perfection of wireless was [earned amateur radio
>operator Guglielmo Marconi a Nobel Prize], the invention of the triode
>vacuum tube [Lee DeForest] was, the invention of selective filter networks
>[Campbell] was, the invention of FM [Major Edwin Armstrong] was, the
>invention of the transistor [Shockley, Bardeen & Britain] was, the discovery
>of the mathematical formula for channel capacity [Shannon] was, the
>invention of the integrated circuit [Jack Kilby, Robert Noyce] was, the
>invention of the Yagi-Uda antenna was... etc...
>
>The important thing to note here is that none [None!] of these protaganists
>were known as unabashed self-promoters, sensation seekers or were ever found
>to be "reckless with the truth". Some, perhaps Armstrong from the above
>list, were not to enjoy their fame in their own lifetim.] but all were
>eventually recognized by the lay press and the lay public and widely
>celebrated as the inventors of disruptive technologies.
>
>But fractal antennas, disruptive?
>
>An interesting approach to linear loading, but not disruptive, perhaps the
>fractal geometry disrupts the continuity of their elements, but...
>
>Where are the earthshaking news stories? The calls for knighthood, the
>Nobel Prizes, etc...
>
>What???
>
>All get here on this august USENET NG is boyish boasting and often
>unsubstatiated and somtimes outlandish claims from Dr. Cohen, with no
>earnest attempt to place any of the work on fractal geometry antennas [by
>anybody] in perspective.
>
>Disruptive indeed. tsk tsk tsk... for shame Dr. Cohen how dare you to
>attempt to include yourself in the Pantheon of the Greats of
>electro-technology!
>
>From the responses to his overtures for praise and validation on this NG it

>seems that Dr. Cohen is not revered but reviled.
>
>Why?
>
>Could it be that one of the main attributes of disruptive technologies is
>that they stand on their own and need no promotion by their inventors?
>
>It seems that Dr. Cohen simply can't wait! Dr. Cohen seems to indicate that
>*he* should be placed in the august company of those listed in the Pantheon
>above, yet he can't seem to meet the basic requirment to be so honored.
>Patience and acceptance.
>
>It seems more likely that *he* is the single most disruptive thing about
>antennas which utilize a fractal geometry, not the so-called technology
>itself.
>
>It's really very sad, since the public awareness of any small benefits
>achieved in niche applications by utilizing a fractal geometry for antenna
>design have probably now been completely washed away by the useless
>controversy generated by Dr. Cohen's selfish impatient self-promotion.
>
>Disruptive technology indeed!
>
>--
>Peter K1PO
>Indialantic By-the-Sea, FL
>
>"W.G Ewald" <wgewald@att.net> wrote in message
>news:siiruucdbncvghdo7crn6m3dp8mn8k357e@4ax.com...
>> On 04 Dec 2002 01:28:34 GMT, k1bqt@aol.com (Rick Littlefield) wrote:
>>
>> >>Disruptive technologies always pose threats of change.<
>> >
>> >Disruptive Technologies! I love it. Is it registered? Damn, I want that
>name!
>> >
>> >Rick K1BQT
>>
>> It's already an overworked phrase. Like "paradigm shift", it's used
>> alot by people blowing smoke.
>>
>>

None of the inventions/discoveries you list are disruptive technologies.

73,
Chip N1IR

3849. Re: Disruptive Technolgies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 15:49:02 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEE23EE.60304@ieee.org>
Source record: 129987

Peter O. Brackett wrote:
> But fractal antennas, disruptive?
>
> An interesting approach to linear loading, but not disruptive, perhaps the
> fractal geometry disrupts the continuity of their elements, but...

Peter, you have to admit fractal antennas have disrupted r.r.a.a. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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3850. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 15:53:44 UTC
From: JELo <jelo@nospammail.com>
Message-ID: <3dee2518_4@corp.newsgroups.com>
Source record: 129988

> Get copper wire, get torch, get silver solder,
> solder copper wire to copper ground rod! Q.E.D.
> (or whatever that means!)

Problem is it is an aluminum antenna
so I run into the Al/Cu problem at
some point whether the ground wire
is Al or Cu. JELo

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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3851. Re: Radiation 101 (please)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 15:53:52 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asl8ef$ej5$1@venus.btinternet.com>
Source record: 129989

What you need is a diagram of the electric lines of force (the near field) around a dipole, including the lines of force which have become detached because of their movement, have closed upon themselves and are expanding outwards into space. (The radiation field).

It's so simple I'm sure you have already visualised what occurs.You just enjoy interminable discussions. ;o)

Reg

3852. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 16:00:57 UTC
From: jder8745@aol.com
Message-ID: <20021204110057.06157.00000152@mb-fq.aol.com>
Source record: 129990

"For more than 100 years advantage has been taken of the fact that 3-phase transmission lines, for the same weight of copper and support, have a significantly lower energy loss than 2-wire lines."

I think you are confused, three phase distribution is used to minimize the capital investment of hardware for a given power requirement.

This has no application to amateur radio where the power levels are in the kilowatt range. To get lower loss just use better transmission line and keep your VSWR unity..

73 de Jack, K9CUN

3853. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 16:04:04 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asl91c$j5h$1@slb6.atl.mindspring.net>
Source record: 129991
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Cecil:

[snip]
> Peter O. Brackett wrote:
> > Why the hell do we need "reflected power"
>
> Without reflected energy, I could not achieve a no-tuner match
> with my 80m dipole on all HF bands. Without reflected energy,
> there would be no SWR circle on a Smith Chart. Without reflected
> energy, I would always see 450 ohms looking into my 450 ohm
> transmission line. My transmitter doesn't like 450 ohms.
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

Heh, heh... now that sounds like a lot of bafflegab to the uninitiated!

It's really pretty simple I think, here's I Smac's setup...

radio>jumper>wattmeter>coax>load
^ ^
100W 100W

100Watts supplied from the radio, 100Watts delivered into the load, and...

Ba da bum...

50Watts of "Reflected Power" held in the wattmeter for later use in case
it's needed
to supply power to the computer calculating the SWR?

What?

--
Peter K1PO
Indialantic By-the-Sea, FL

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DEE218C.4080002@ieee.org...
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3854. Antenna switch

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 16:05:38 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92DA67A18BEAmichalkunyahoocom@128.233.3.7>
Source record: 129992

Does anyone know or made an antenna switch that could be used by the winradio plugin? It's controlled by a com or lpt ports.

3855. Re: Disruptive Technolgies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 16:07:49 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asl98e$o62$1@slb9.atl.mindspring.net>
Source record: 129993

Cecil:

[snip]
> Peter, you have to admit fractal antennas have disrupted r.r.a.a. :-)
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

Oh... OK, you got me.

I completely missed that.

I'm not perfect you know!

Happy Holidays,

--
Peter K1PO
Indialantic By-the-Sea, FL

3856. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 16:18:13 UTC
From: "Stephen C. Robbins" <srobbinsNoSPaMDUDES@netacc.net>
Message-ID: <3dee2a95@news.netacc.net>
Source record: 129994

"JELo" <jelo@nospammail.com> wrote in message
news:3dee1ce6$1_4@corp.newsgroups.com...
> > ----------
> > NOALOX
> > Greg Z
> > to thine own sound be true
>
> Looked around the net and found the stuff
> but don't see any info about using it to solve
> dissimilar metals problems? Is stopping the
> aluminum oxidation enough to make things
> right? JELo
>
>
>

It is more in how it stops the oxidation. It isnt just grease. The oxidation is caused by galvanic action between the two dissimilar metals. The paste contains a compound of metals in such a proportion that the effect is eliminated.

The new connection will conduct just fine to ground. It is when galvanic action leads to corrosion, that you end up with high resistance, and thus, lousy ground. Quite a few homes burned to the ground when alluminum wire was introduced into home electrical systems (Usually the oven or clothes dryer feed). After the connections corroded and went high resistance, they cooked until they ignited adjacent materials. Prevent the galvanic action, prevent the corrosion, maintain the good continuity path to ground.

Steve

3857. Re: Disruptive Technolgies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 16:32:24 UTC
From: fractenna@aol.com
Message-ID: <20021204113224.21612.00000250@mb-mu.aol.com>
Source record: 129995

Actually, FM might be considered disruptive. I've had some fun mulling this one while I have been testing some 900 MHz-2.4 GHz antennas (about 2/3 of an inch in size).

The Yankee Network does seem to have qualified as a niche market, which RCA ignored as not of interest.

I'm reasonably well educated on Armstrong's and Hammond's patents and backgrounds (among others), so this fact seems to have escaped my middle aged memory.

73,
Chip N1IR

3858. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 16:47:45 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212040847.1dba3c78@posting.google.com>
Source record: 129996

Roy Lewallen <w7el@eznec.com> wrote in message news:<uuqt3t5crpjj36@corp.supernews.com>...

snip
snip. Once again I guess I didn't understand what you were trying to
> say. Sorry.
>
> Roy Lewallen, W7EL
>
> Art Unwin KB9MZ wrote:
> > Roy Lewallen <w7el@eznec.com> wrote in message
news:<uuq3bejvu4h794@corp.supernews.com>...
snip
> Regards
> > Art

Roy, Not 'understanding' is not all that unusual.In San Diego they
have a
the 'University for American English' which is vastly different from
the
'English" that is used thru out the world. So there was no need to say
'sorry' because I also was guilty of the same offense. Why else wou;ld
I go thu all that explanation of detailing my silly antenna which
normally brings forth derision if I also didn't "mis-understand' the
intent of your post.
My children by the way, write and speak American English tho they do
often
lapse into "proper English" when they wish to attract the opposite
sex.
Regards
Art

3859. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 16:48:30 UTC
From: tdonaly@aol.com
Message-ID: <20021204114830.29397.00000191@mb-fb.aol.com>
Source record: 129997

>
>Richard Clark, KB7QHC wrote:
>"Things haven`t improved much since, whoever is singing the song..."
>
>The war is between ideas which result in actions, and now it is about
>oil.
>
>The 20th century brought changes. Now the economy is worldwide and we
>have instant communications.
>
>Hollywood changed the world. The world saw the West and wants what it
>saw. Planned propaganda and force aren`t much needed to reshape the
>world in the Western image.
>
>Force is required for defense and to enforce our will.
>
>Best regards, Richard Harrisom, KB5WZI
>

Written like a true old, cold warrior. Here's another Kipling quote, a
fragment
from a poem called "The Young British Soldier."

When you're wounded and left on Afghanistan's plains,
And the women come out to cut up what remains,
Jest roll to your rifle and blow out your brains,
An' go to your Gawd like a soldier.

Tom Donaly, KA6RUH

3860. Re: 1/4 vertical versus 1/2 dipole questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 16:57:22 UTC
From: adam.white@sbcglobal.net
Message-ID: <3dee310f.602297978@news.dallas.sbcglobal.net>
Source record: 129998

Thanks for your suggestions. One follow-up question for you: When
you say "vary the length of the feedline" ... how exactly do you vary
it? Multiple lengths that you can easily connect /disconnect as
required?

Thanks,
Adam

> I feed it with 300 ohm ladder-line and vary the
>length of the feedline to achieve a match without a tuner.

3861. Re: 1/4 vertical versus 1/2 dipole questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 17:04:53 UTC
From: adam.white@sbcglobal.net
Message-ID: <3dee31cc.602487050@news.dallas.sbcglobal.net>
Source record: 129999

Thanks to you who have already responded to my questions! One additional thought that has just occurred to me: the *easiest* place for me to mount that dipole would be right on top of the 30' by 30' patio area. In a matter of about 5 minutes I could erect three wooden supports -- one at opposite corners and one in the middle -- on the flat "roof" of the patio. If those supports extended, say, 5 feet above the roof then my dipole would be 15 feet above ground. That's lower than optimum, but it would ve extremely secure and easy to reach / modify. Since that's so easy I think I'll try it first. So here's my belated question: that cable I described which is on top of the patio would now be only 5 feet below the dipole. There would be no direct contact, but what if any effect would the cable have? If it's likely to be negligible then I'll proceed with this plan first (the patio is closer to my house and would require even less feed line than either of the other two potential dipole locations I mentioned).

Adam

3862. built-in SWR meter effectiveness

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 17:11:26 UTC
From: adam.white@sbcglobal.net
Message-ID: <3dee33ab.602966159@news.dallas.sbcglobal.net>
Source record: 130006

I have a fairly new (2001) Icom 706MKIIG which includes a built-in SWR meter. I've previously used this meter to tune a 20m dipole and it seemed to work satisfactorally for that. I'm just curious, though, whether the built-in SWR meter is as effective as a stand-alone SWR meter? I'm about to call Icom and ask this question, but thought I'd ask it here, too -- to get an unbiased answer!

I'm about to do some experimenting with various antenna types and locations. So I wonder if I need to invest the $$$ in a separate SWR meter. Would be nice NOT to, but I'm not sure how accurate the built-in meter might be.

Thanks,
Adam

3863. Re: Radiation 101 (please)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 17:30:20 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <q2dsuuk9jdhqqkc3raq9ci8pdgrata4tr9@4ax.com>
Source record: 130000

On Wed, 4 Dec 2002 15:53:52 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>What you need is a diagram of the electric lines of force (the near field)
>around a dipole, including the lines of force which have become detached
>because of their movement, have closed upon themselves and are expanding
>outwards into space. (The radiation field).
>
>It's so simple I'm sure you have already visualised what occurs.You just
>enjoy interminable discussions. ;o)
>---
>Reg
>

Ah Punchinello,

If an antenna does not radiate from one end - where does the line
start? :-0

Maybe it's like a late dinner guest standing at the door, interminably
pondering whether to knock or ring the bell. ;-)

Like that line, take your time so that you can traverse the path
without spilling any wine. We will all wait up so you don't suffer a
similar fate.

73's,
Richard Clark, KB7QHC

3864. Re: Disruptive Technolgies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 17:40:05 UTC
From: dan <danlx@execpc.com>
Message-ID: <3dee3d94$0$1408$272ea4a1@news.execpc.com>
Source record: 130001

On Wed, 04 Dec 2002 09:49:02 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Peter O. Brackett wrote:
>> But fractal antennas, disruptive?
>>
>> An interesting approach to linear loading, but not disruptive, perhaps the
>> fractal geometry disrupts the continuity of their elements, but...
>
>Peter, you have to admit fractal antennas have disrupted r.r.a.a. :-)
Hi Cam,
I have to disagree. Fractal antennas have not disrupted anything. It
is the Mr. Buffoon, pounding his own chest, threatening legal revenge
and well, just being Mr. Buffoon, that has caused a disruption on
r.r.a.a.! Even if the fractal crap brings him millions, he will still
be Mr. Buffoon when he looks in the mirror. There is no place Mr.
Buffoon can go to hide his Mr. Buffoon reputation. I almost feel
sorry for him, NOT.
Dan
N9JBF

I've rambled enough, back to the rocking chair. ZZZZZZZZZ
Remove left x for e-mail reply.

3865. NEC 2 Linux

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 17:47:28 UTC
From: Ricardo Martins <ricardo.martins@pt.uu.net>
Message-ID: <3DEE3FB0.8DDCADD4@pt.uu.net>
Source record: 130003

Hello,

Eric Oyen - N7ZZT wrote:
>
> I am wondering..
> is there a linux version of this type of program (antenna modeling,

ftp://ftp.qsl.net/pub/wb6tpu/NEC/nec2.linux.Z

etc)?
>

http://radio.linux.org.au/

> it apears that the ftp site you listed below contains software strictly
> for the windows users community. I'd apreciate some input into this.
>
> thanks.
>
> DE N7ZZT (Eric Oyen)
> Phoenix, az. USA
>
> In article <uunfk23bjlb8ea@corp.supernews.com>, "Roy Lewallen"
> <w7el@eznec.com> wrote:
>
> > Steve has backed up his opinions with several papers in professional
> > publications. In addition, he's furnished some simple examples of
> > randomly-bent wire antennas whose properties are equal or superior to a
> > fractal antenna widely used to illustrate the fractal technique. EZNEC
> > users can download EZNEC description and antenna notes files with these
> > examples from ftp://eznec.com/pub/MI2/. Please see the 0notes.txt file
> > in that directory for descriptions of the available examples.
> >
> > Roy Lewallen, W7EL

73 de CT2GQV
--
Ricardo Martins

3866. Re: Fractal Marketing Techniques

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 17:51:18 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <tgfsuucr1oehag1p6daemp936aj4kmum2g@4ax.com>
Source record: 130002

On Wed, 04 Dec 2002 09:19:04 GMT, W.G Ewald <wgewald@att.net> wrote:

>On Wed, 04 Dec 2002 02:46:23 GMT, Richard Clark <kb7qhc@attbi.com>
>wrote:
>
>>
>>Its a shame that Apple decided to pull the plug on its clones, their
>>market share would've been on par by now but they decided to use
>>fractal marketing techniques.
>>
>>73's
>>Richard Clark, KB7QHC
>
>Richard,
>
>That's a very interesting visual image, if you mean an iterative
>mathematical process applied to marketing.
>
> If you're alluding to the commercial activities here on the
>newsgroup ("disruptive technology!"), it's a very bizarre picture.
>
>
>WE

Hi Bill,

No, it is a simple life's lesson illustrated by Jobs when he returned to Apple (to revitalize it) and immediately killed Franklin (the major clone builder that threatened to overtake Apple in sales) by muttering that oath "IP."

At the other end of the processing spectrum, Microsoft for more than 15 years showed a steady climb in stock value until it hit the Justice Department and the threat to split the dinosaur in two (or more). The world held its breath for nearly three years (and the stock stagnated like a cesspool) to a wishy-washy resolution. With the decision handed down the stock was then free to do what was natural as a consequence - it remains stagnant.

This illustrates at least three companies that just don't get it when it comes to capitalism: ego driven and investor screwed - fractal marketing at its best: if you are personally doing good, **** the rest.

73's
Richard Clark, KB7QHC

3867. Re: 1/4 vertical versus 1/2 dipole questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 17:57:43 UTC
From: Dan/W4NTI <w4nti@NOSPAMmindspring.com>
Message-ID: <aslfm3qrh1@slb9.atl.mindspring.net>
Source record: 130004

As an operational suggestion. And this will help you in keeping in touch with your brother. Check into the Intercon or Maritime mobile net. It operates 24/7 all day long on 14.300 mhz. Just give it a listen and follow the proceedure. Nothing too it really. Just holler in when net control askes for it and list your traffic . I.E. this is so and so would like to call so and so. Go from there. Nice helpful fellows.

Have fun and enjoy.

Dan/W4NTI

"Adam White" <adam.white@sbcglobal.net> wrote in message news:3dee31cc.602487050@news.dallas.sbcglobal.net...
>
> Thanks to you who have already responded to my questions! One
> additional thought that has just occurred to me: the *easiest* place
> for me to mount that dipole would be right on top of the 30' by 30'
> patio area. In a matter of about 5 minutes I could erect three wooden
> supports -- one at opposite corners and one in the middle -- on the
> flat "roof" of the patio. If those supports extended, say, 5 feet
> above the roof then my dipole would be 15 feet above ground. That's
> lower than optimum, but it would ve extremely secure and easy to reach
> / modify. Since that's so easy I think I'll try it first. So here's
> my belated question: that cable I described which is on top of the
> patio would now be only 5 feet below the dipole. There would be no
> direct contact, but what if any effect would the cable have? If it's
> likely to be negligible then I'll proceed with this plan first (the
> patio is closer to my house and would require even less feed line than
> either of the other two potential dipole locations I mentioned).
>
> Adam
>

3868. Re: CAM or anyone? 40 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 18:28:50 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <0jhsuug7vftq6kr9di2vploldo0662cg2o@4ax.com>
Source record: 130005

On Wed, 04 Dec 2002 09:43:49 -0800, nospam <xxxmmxxx@xxxspiritone.com>
wrote:

>My 40 meter dipole is about 30 ft up.
>
>I need to run part of one end of it down vertically on the
>tree that supports it. Only about 7 or 8 ft of the 32' on
>this one end will be vertical.
>The other end will still be completely horizontal.
>
>Will this affect performance any?
>
> _________________________XXX_________________________
>|
>|
>|
>|
>

Hi OM,

Sure, how much is another matter, and if it matters is another matter.

You probably will have to re-tune it (at the antenna or in the shack).
Then again, maybe not. Either way, when tuned, measure its bandwidth
and if it is significantly wider than published figures (at your
height) then the tree has become a linear loading element: some C, a
little L, and perhaps a significant R.

How significant? Well, one fractal developer optimized a tree by
driving a nail into it (that was the only contribution of wire), and
then driving the nail with RF. It worked! But how well was never
revealed (optimization was for the benefit of the designer, not the
reviewers).

So, your plight falls somewhere in between nearly perfect, and nearly
fractal. Your good fortune is in having not optimized with a
disruptive technology. ;-)

73's
Richard Clark, KB7QHC

3869. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 18:55:19 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEE4F97.9030105@ieee.org>
Source record: 130008
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Peter O. Brackett wrote:
> It's really pretty simple I think, here's I Smac's setup...
>
> radio>jumper>wattmeter>coax>load
> ^ ^
> 100W 100W
>
> 100Watts supplied from the radio, 100Watts delivered into the load, and...
>
> Ba da bum...
>
> 50Watts of "Reflected Power" held in the wattmeter for later use in case
> it's needed to supply power to the computer calculating the SWR?

Nope, 50 watts of reflected joules/sec interfering with 150 watts of
forward joules/sec to cause the impedance transformation represented
by an SWR circle of 3.73:1 on the Smith Chart. The reflected energy
is being used for impedance transformation and therefore cannot be
used for any other purpose. How can I break you from trying to use
the same energy for two different purposes? Do you try to use the
same energy for powering your computer as you do for drying your
clothes?

If you calculate the time it takes for the generated wave to reach
the load you can calculate exactly how many joules of energy are stored
in the reflected wave. For instance, if the transmission line is 100
nanoseconds long, there will be 5 microjoules of energy associated with
the 50 joules/sec of reflected power. There will be 15 microjoules of
energy associated with the 150 joules/sec of forward power. If the
system were flat (matched), there would be only 100 microjoules of
energy stored in the transmission line.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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3870. Re: 1/4 vertical versus 1/2 dipole questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 19:02:05 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEE512D.5020602@ieee.org>
Source record: 130009

Adam White wrote:
> Thanks for your suggestions. One follow-up question for you: When
> you say "vary the length of the feedline" ... how exactly do you vary
> it? Multiple lengths that you can easily connect /disconnect as
> required?

It's all explained on my web page under "W5DXP's No-Tuner All-HF-Band
Antenna". I use knife switches to select a binary length continuously
variable in one foot increments from zero to 31 ft.
--
cheers, CAM http://www.qsl.net/w5dxp

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-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3871. Re: 1/4 vertical versus 1/2 dipole questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 19:05:42 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <amsH9.48769$ID2.3887094@twister.southeast.rr.com>
Source record: 130010

Also heard a Caribbean Net around 7.228 this morning early (0900 Z)

Alan
--
Windsurfing Club: http://www.ibscc.org

"Dan/W4NTI" <w4nti@NOSPAMmindspring.com> wrote in message
news:aslfm3qrh1@slb9.atl.mindspring.net...
> As an operational suggestion. And this will help you in keeping in touch
> with your brother. Check into the Intercon or Maritime mobile net. It
> operates 24/7 all day long on 14.300 mhz. Just give it a listen and
follow
> the proceedure. Nothing too it really. Just holler in when net control
> askes for it and list your traffic . I.E. this is so and so would
like
> to call so and so. Go from there. Nice helpful fellows.
>
> Have fun and enjoy.
>
> Dan/W4NTI
>
> "Adam White" <adam.white@sbcglobal.net> wrote in message
> news:3dee31cc.602487050@news.dallas.sbcglobal.net...
> >
> > Thanks to you who have already responded to my questions! One
> > additional thought that has just occurred to me: the *easiest* place
> > for me to mount that dipole would be right on top of the 30' by 30'
> > patio area. In a matter of about 5 minutes I could erect three wooden
> > supports -- one at opposite corners and one in the middle -- on the
> > flat "roof" of the patio. If those supports extended, say, 5 feet
> > above the roof then my dipole would be 15 feet above ground. That's
> > lower than optimum, but it would ve extremely secure and easy to reach
> > / modify. Since that's so easy I think I'll try it first. So here's
> > my belated question: that cable I described which is on top of the
> > patio would now be only 5 feet below the dipole. There would be no
> > direct contact, but what if any effect would the cable have? If it's
> > likely to be negligible then I'll proceed with this plan first (the
> > patio is closer to my house and would require even less feed line than
> > either of the other two potential dipole locations I mentioned).
> >
> > Adam
> >
>
>

3872. Re: CAM or anyone? 40 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 19:08:16 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEE52A0.9020805@ieee.org>
Source record: 130011

nospam wrote:
> My 40 meter dipole is about 30 ft up.
>
> I need to run part of one end of it down vertically on the
> tree that supports it. Only about 7 or 8 ft of the 32' on
> this one end will be vertical.
> The other end will still be completely horizontal.
>
> Will this affect performance any?

You probably won't notice the difference. It may slightly
alter the radiation pattern and common mode currents.
Depending on spacing and power, the end in the tree may
arc since that is the highest voltage section on 40m.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3873. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 19:41:31 UTC
From: dplatt@radagast.org
Message-ID: <uusmjbg6mog82c@corp.supernews.com>
Source record: 130012

>It is more in how it stops the oxidation. It isnt just grease. The
>oxidation is caused by galvanic action between the two dissimilar metals.
>The paste contains a compound of metals in such a proportion that the effect
>is eliminated.
>
>The new connection will conduct just fine to ground. It is when galvanic
>action leads to corrosion, that you end up with high resistance, and thus,
>lousy ground. Quite a few homes burned to the ground when alluminum wire
>was introduced into home electrical systems (Usually the oven or clothes
>dryer feed). After the connections corroded and went high resistance, they
>cooked until they ignited adjacent materials.

I believe I recall that there was a second-order problem, as well.

Copper and aluminum have significantly different coefficients of
thermal expansion (aluminum's is a third higher). This means that as
a copper/aluminum junction heats and cools, the two conductors will
tend to "work" against one another. The thermal changes cause
physical stress on the junction, which can thus loosen the junction,
increasing the resistance, causing more heating, causing more
stress... poof.

> Prevent the galvanic action,
>prevent the corrosion, maintain the good continuity path to ground.

Yup. Fortunately, ground wiring shouldn't be handling significant
currents on a continuous basis, and so it won't be as subject to
thermal-expansion stress.

I've seen specialized "pigtails" which are intended to be
pressure-crimped onto the ends of aluminum wires... the ends of the
pigtails can then be connected safely to "copper wire only" outlets
and etc. I imagine that the design of the pigtail is such that it
resists both galvanic corrosion (either via choice of alloy, or via
use of the right kind of anti-corrosion paste?), and thermal stress
(by using a strong, ductile alloy with a suitable coefficient of
expansion?).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3874. Re: poor am reception in north central PA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 20:23:41 UTC
From: Mark Keith <nm5k@wt.net>
Message-ID: <3DEE644D.107D@wt.net>
Source record: 130013

David or Jo Anne Ryeburn wrote:
>
> In article <7gspuugr8r2j8sevfdkrm46jaee9dfnlno@4ax.com>, Richard Clark
> <kb7qhc@attbi.com> wrote:
>
> > Hi Mark,
> >
> > This was a neat idea and I was very enthused to give it a try, but for
> > some reason nothing happens when I go to the page. I tried with both
> > Netscape and IE and nada (last night and again this morning).
> >
> > Any hints?
> >
> > 73's
> > Richard Clark, KB7QHC
>
> Worked just fine for me, using my browser of choice (iCab 2.8.2). Each
> file was automatically handed over to QuickTime which processed it
> immediately. I listened to all three clips.
>
> Just to check whether older browsers work, I tried Netscape Communicator
> 4.8 (the most recent version of the venerable 4.x Netscape series). Worked
> fine, but I had to download the file and submit it to QuickTime by hand,
> rather than see it handed over to QuickTime automatically. I then tried
> Mozilla 1.2.1 (released last night) and again I had to download the file
> separately and hand it over to QuickTime. Mozilla, as you probably know,
> is a work in progress, and is about a half year ahead of the Netscape
> releases (e.g. Netscape 7 is pretty much Mozilla 1.0.1).
>
> I won't have Internet Exploder on my computer, for security reasons, so I
> can't tell you about that one.
>
> Oh, by the way, all this was done on one of those "unstable" Macs -- a
> year and a half old G4, to be specific. iCab isn't available for Windows,
> which is a shame, since it is such a nice browser. And this particular Mac
> is still running OS 9.2.2, and is not yet on OS X, which in case you
> didn't know is really UNIX (something like the BSD version) with a pretty
> face. I think UNIX is considered to be rather stable.
>
> David, ex-W8EZE

Normally, when using windows, the windows media player should handle
this automatically.
If it doesn't, that usually means it's not the "selected" player to play

stuff pulled off the browser. If the files don't auto load, then you will need to d/l the files and manually play them in a player. Media player, quicktime, real audio, or even the windows sound recorder can play them. The original files were 44k wav files. Just the first file was nearly 8 megs. I compressed and converted to the mpegs using the windows sound recorder. In my windows setup, windows media player plays the files no matter which browser I use. My 706 is run to my sound card here in the house. Makes it very easy to record. Was direct, so no mike coloration. What you hear is what I hear, except that it's better here in the full fidelity. I listen in psuedo stereo through two large speakers. Actually, I was surprised at the quality of the 11k-2 mpegs.. Not too bad audio quality considering how small it crunched down the files. Note that I used stations that were not overly strong or clear channels. Thats the true test...Pulling semi weak ones out of the muck...If I listen to a loud clear channel, it sounds much better. MK
--
http://web.wt.net/~nm5k

3875. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 20:40:39 UTC
From: Kedrid <Kedrid@kedrid.com>
Message-ID: <aslp9o$b79$1@slb6.atl.mindspring.net>
Source record: 130014

Ok I know this will sound dumb, but!! Why not just go BUY a short peice of Copper grounding wire? The length needed. It seems like a better long term solution, and would be the more correct way of making the connection anyway?? No??

Instead of investing time and money in compounds, and bi-metal grounding clamps!! Just a though!

"JELo" <jelo@nospammail.com> wrote in message news:3ded5cff_1@corp.newsgroups.com...
> Got a copper pipe in the ground
> and a bronze grounding clip -
> can I connect my 8 gauge
> aluminum antenna ground wire
> directly to the bronze clip
> or do I need to do something special?
>
> JELo
>
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3876. Re: built-in SWR meter effectiveness

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 21:29:35 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asls3t$91e$1@helle.btinternet.com>
Source record: 130015

Hi Adam, don't bother calling Icom. They'll consider it to be a nuisance call. ;o)

You could call an SWR meter salesman who will try to sell you one.

Accuracy? - don't make me laugh!

A so-called SWR "meter" built into the transmitter is a much more practical instrument than an add-on instrument. It informs the operator exactly what he needs to know. No more and no less. That is why equipment designers specify it should be placed in the same box as near as possible to the transmitter.

The SWR meter, located in its usual position, does not in fact measure SWR. It merely INDICATES, nevertheless very importantly, whether or not the transmitter is connected to its designed-for load resistance.

This is usually 50 ohms and the "meter" itself must also be designed for use in a 50 ohms system. A built-in "meter" guarantees it has been designed for use with the transmitter it is immediately connected to. The two will have been adjusted to match each other in the factory.

A more appropriate and far less misleading name is the TLI = Transmitter Loading Indicator.

The TLI indicates the transmitter is correctly loaded when the "measured SWR" = 1:1 But the term SWR is meaningless because there is no significant length of line between transmitter and "meter" on which a standing wave can exist.

(Note 1: A true SWR measurement can be obtained only by TWO independent voltage (or current) measurements on a transmission line SPACED APART by 1/4-wavelength. SWR means exactly what it says. It is just a ratio of two different voltage measurements. A meter located at one point cannot determine SWR. Furthermore SWR is independent of the Zo impedance of the line on which the SWR is determined. The two 1/4-wave spaced points at which the voltage measurements are made correspond to the maximum and minimum voltages which may exist at different places along a line.)

(Note 2: But it should be stated, SWR is an important parameter in the analysis of transmission lines. But the line must at least exist before an analysis becomes meaningful. At HF, a few inches of wire between transmitter and so-called meter does not qualify.)

I shall now take refuge in my well-stocked, deep, bomb shelter.

Reg, G4FGQ

==========

"Adam White" wrote -
> I have a fairly new (2001) Icom 706MKIIG which includes a built-in SWR
> meter. I've previously used this meter to tune a 20m dipole and it
> seemed to work satisfactorally for that. I'm just curious, though,
> whether the built-in SWR meter is as effective as a stand-alone SWR
> meter? I'm about to call Icom and ask this question, but thought I'd
> ask it here, too -- to get an unbiased answer!
>
> I'm about to do some experimenting with various antenna types and
> locations. So I wonder if I need to invest the $$$ in a separate SWR
> meter. Would be nice NOT to, but I'm not sure how accurate the
> built-in meter might be.
>
> Thanks,
> Adam

3877. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 21:29:36 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asls3v$91e$2@helle.btinternet.com>
Source record: 130016
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Peter wrote -
> that so called "reflected power" must then be just a fiction!
>
> Why the hell do we need "reflected power"

==========

Peter, you must drink the same stuff as I do.

Down with SWR meters! Up with the TLI.

Reg, G4FGQ

3878. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 21:41:41 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aslsqk$is8$1@venus.btinternet.com>
Source record: 130017
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Cecil, reflections involve time. But you never mention the stuff in your explanations of how and why things work.

Where is the "time" scale on a Smith Chart?

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

3879. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 21:48:18 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <aslt4s$sib9h$1@ID-140397.news.dfncis.de>
Source record: 130018
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:asl5m6$lf7$1@slb4.atl.mindspring.net...
> I Smac:
>
> [snip]
> > > How much power is dissipated by the load?
> >
> > 100 watts plus or minus 5% of full scale minus the losses in the tuner
and
> coax.
> > --
> > cheers, CAM http://www.qsl.net/w5dxp
> [snip]
>
> Yep everyone is correct!
>
> 100 Watts out of the transmitter, 100 Watts [minus small losses] into the
> load, and...
>

Not all of that 100W (minus small losses) will be transferred to the load
unless the load is matched to the transmission line impedance and purely
resistive- reactances don't absorb power.

> Ba da bum...
>
> that so called "reflected power" must then be just a fiction!

and the bit that isn't transferred to the load is reflected back down the
line as refelcted power.

Think of an analogy. Light is reflected from a window because the refactive
index air and glass differ. If you could made the glass with the same
refractive index as air you would get no reflection and all the light (less
abit lost in transmission) would pass through the glass.

The refractive indices of the air and glass correspond to the impedances of
the glass and air. The light reflected back is the reflected power.

>
> Why the hell do we need "reflected power"
>

So we can deduce the reflection coeff. and, by suitable calibration of a
meter scale, indicate the VSWR or just SWR.

Now there is a Brit who denies SWR exists but we don't take him seriously.

73

Brian

3880. a shortened BEAM ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 22:07:27 UTC
From: Torbj&#65533;rn Morka <lc3rbt@online.no>
Message-ID: <u0vH9.5481$hV6.94333@news2.e.nsc.no>
Source record: 129919

In use for the 17-m band, i would like to make a shortened beam-antenna, i.e reduce length of elements, and compensate with coils.
Is there formulas for such ??

Thanks,
T.

3881. Re: Three Phase Antenna Feedlines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 22:08:55 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asludm$31$1@knossos.btinternet.com>
Source record: 129920

> I think you are confused, three phase distribution is used to minimize the
> capital investment of hardware for a given power requirement.
>
> This has no application to amateur radio where the power levels are in the
> kilowatt range. To get lower loss just use better transmission line and
keep
> your VSWR unity.

==========

I agree on your economics. But just changing from 14 to 12 gauge makes a
boring newsgroup topic. ;o)

Reg, G4FGQ

3882. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 22:21:06 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <47vsuuk4008k8t0uo3f19q1hhm0dptnav1@4ax.com>
Source record: 129921
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Wed, 4 Dec 2002 21:48:18 -0000, "Brian Reay"
<brian.reay@bigfoot.com> wrote:

| "Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
|news:asl5m6$lf7$1@slb4.atl.mindspring.net...
|> I Smac:
|>
|> [snip]
|> > > How much power is dissipated by the load?
|> >
|> > 100 watts plus or minus 5% of full scale minus the losses in the tuner
|and
|> coax.
|> > --
|> > cheers, CAM http://www.qsl.net/w5dxp
|> [snip]
|>
|> Yep everyone is correct!
|>
|> 100 Watts out of the transmitter, 100 Watts [minus small losses] into the
|> load, and...
|>
|
|Not all of that 100W (minus small losses) will be transferred to the load
|unless the load is matched to the transmission line impedance and purely
|resistive- reactances don't absorb power.

You obviously haven't been following along. The reflected power has
already been accounted for. The net forward power is 100 W. All of
it is dissipated in the load.

Furthermore, "matched to the transmission line impedance and purely
resistive" are mutually exclusive when the line has loss.

A slightly reactive load can present a better match to a reactive
transmission line (i.e. one that has loss) than does a load that is a
pure resistance. So, a purely resistive load *is not* the optimum
load for a lossy line.

3883. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 22:25:50 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <uut067maoanr86@corp.supernews.com>
Source record: 129922
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Reg Edwards wrote:
> Cecil, reflections involve time. But you never mention the stuff in your
> explanations of how and why things work.
>
> Where is the "time" scale on a Smith Chart?
> ---
> ==========
> Regards from Reg G4FGQ

Here's a verbo-visual image that I wonder if it would be correct? If we were to slow things down from say 14 MHz to maybe one hertz or less and could shoot out a single cycle of energy, we would start by seeing the forward needle rise to 100 while the reverse slowly barely lifts from zero. Then we would see the forward needle drop back towards zero (but not all the way unless it was a directional coupler type of circuit) while the reverse crept up to 50. Note particularly that the forward meter hasn't reached zero before the reflected meter starts indicating power....the time delay being simply based on the length of the line. Then the process would be repeated but on the second cycle there would be an increase in the forward indication because the reflected wave is hitting a who-knows-what match at the xmtr output and bounces back in the forward direction.
So logically there is more than the original 100 'watts' reading that was seen on the first cycle. I'll let the math pros have at it because I think this second cycle 'forward' reading gets rather complicated. There is the xmtr out, minus the feedline loss to the load, the amount of reflected voltage due to the mismatch, feedline loss again, then another (possibly unknown) amount of reflected voltage seen at the xmtr output terminal...then its phase relationship with the actual transmitted signal.
The third cycle has all of that plus more...and so on.

The point is that a reading of 150 watts forward and 50 reflected doesn't simply indicate a 'real' output power of 100 watts. It may be pretty close but I suspect there's enough 'if factors' to keep it from being a rule-o-thumb. Based on the same thought, the '50 watts reflected' isn't going to be particularly accurate either after the first cycle.
Maybe there IS a rule-of-thumb that can be applied and possibly it will in fact approach the simplified 150-50=100 once this process has been repeated 14 million+ times in a second.

So yes, time is obviously a factor. Each repeated cycle will increase the voltages read but after a few cycles the voltage addition rules make

it moot since the succesive increases are so small....so its pretty easy to ignore 'time' at 14 Mhz unless one goes back to extract the behaviour of a single cycle or two, in which case, apples are being compared to oranges.

My 2 centavos.

-Bill WX4A/KP4

3884. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 22:31:46 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aslvoh$2hd$1@knossos.btinternet.com>
Source record: 129923
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Brian, there you go again, unnecessarily complicating and confusing matters.

Regardless of line and load impedances, all power leaving the generator must
be dissipated in load. There is nowhere else for the stuff to go.

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

3885. Re: CAM or anyone? 40 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 22:36:40 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DEE8380.7775190D@shaw.ca>
Source record: 129924

nospam wrote:
>
> My 40 meter dipole is about 30 ft up.
>
> I need to run part of one end of it down vertically on the
> tree that supports it. Only about 7 or 8 ft of the 32' on
> this one end will be vertical.
> The other end will still be completely horizontal.
>
> Will this affect performance any?
>
> _____XXX_____
> |
> |
> |
> |

I doubt if you will notice any difference. A guy's (no
pun intended) gotta do what a guy's gotta do. There are
probably more bent dipoles, bent in more different ways,
in more back yards and other locations, than you can
possibly
imagine. The hams are working DX on them while others are
holding off because they aren't sure if they'll work
100 percent!
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

3886. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 22:38:32 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212041438.4ecfc991@posting.google.com>
Source record: 129925

tdonaly@aol.com (Tdonaly) wrote in message
> I guess in a place like Texas a man needs a gun in order to make sure he
> sees his next birthday. It's different in other parts of the U.S. where people
>
> are more on the civilized side.

No, there is no real difference at all. If anything, I can think of
places much more dangerous. I'd rather walk at night in Houstons high
risk areas, than I would say in LA, or Detroit, etc. There are crooks
no matter where you go. I could be out in the sticks all by myself,
and be in more danger than here in the big city. All it takes is one
crook on the prowl to ruin your day. Many of the crooks out in the
sticks are worse than the ones in the city. No nearby cops around to
ruin their day. It's when I'm out in the sticks by myself that I feel
the most need to have a gun. I never carry a gun in Houston. I did
keep a gun at a few businesses I worked at or owned though. The threat
of robbery is real around here. But no worse than any other big city.
Houston is very modern. It's not like many people think looking at the
cowboy movies. I've gone out on the west coast to LA, and SF, etc.
Those cities are very "old" and sorta run down looking compared to
Houston. When I got back to Houston, it looked like it was built a
couple of weeks ago, and someone is constantly vacuuming the streets..
Much cleaner and more modern than LA. Houston is probably one of the
most "modern" cities in the country.

> I used to do a lot of hunting when I was young. I'm not bragging when I say
> that I bagged more stop signs and tin cans than anyone in Tulare county in
> the late '50's. And all I had was a single shot .22. Other people shot
> rabbits,
> dove, etc. Those critters had nothing to fear from me, though. I couldn't hit
> them, anyway. I was always after bigger and bigger road signs.
> Have you ever shot up a road sign, Mark? Don't lie.

Oh, I'm sure I've taken shots at a few, but I've never shredded one.
My shooting skills? I used to use a pellet gun to shoot locusts laying
on the branches of trees 30-40 ft up, in trees. All you see is a small
bump on the tree branch. I used to cut them in half. I also used to be
able to shoot flying bumble bees and shoot them in half. I liked to
target shoot, and kill beer cans , etc. I used to hunt quite a bit
when I was young, but I've kind of grown out of that I guess. I don't
really like to kill stuff anymore, because animals are a limited
resource, and getting squeezed out the picture more every day. I would
kill a deer if I wanted the meat, but I'm too lazy to clean and
process it, etc, so I just leave em alone. I will still make a mess
out of a rat or other similar varmit though. I used to shoot them off

the power lines at dusk when they start their nightly prowl. Lots of rats in Houston. Even river oaks has loads of them...MK

http://web.wt.net/~nm5k/

3887. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 22:48:36 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212041448.4d20f867@posting.google.com>
Source record: 129926

aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message Everybody knows that illegals are not deported now
> or even reported by the police so certainly none of the 'illegals' are
> down trodden today.

Not the case here. INS does sweeps of likely hangout places regularly here.
IE: labor force pickup spots, etc. If they get caught, they go back to Mexico.
Of course, then they just eventually come back again, and start over. MK

3888. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 22:51:54 UTC
From: richardharrison@webtv.net
Message-ID: <21554-3DEE870A-17@storefull-2314.public.lawson.webtv.net>
Source record: 129929

Tom Donaly, KA6RUH wrote:
"Written like a true old, cold warrior."

I just declared victory and retired not tarrying to be abandoned.

Best regards, Richard Harrison, KB5WZI

3889. Re: built-in SWR meter effectiveness

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 22:58:09 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DEE8881.B6550BE9@cwis.net>
Source record: 129927

Adam,
It ought to work fine.
'Doc

3890. Re: Antenna switch

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 23:03:53 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DEE89D9.D5DF88EC@cwis.net>
Source record: 129928

Michalkun,
If it uses a common connector (9 pin?), you
might find a switch used for periferals in one
of the electronic catalogs. Haven't seen one
in a while, but they used to be sort of common.
'Doc

3891. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 23:17:00 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <o53tuuge9uvqltjaj99dcv45bf7d70ket6@4ax.com>
Source record: 129930
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Wed, 4 Dec 2002 21:41:41 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>Cecil, reflections involve time. But you never mention the stuff in your
>explanations of how and why things work.
>
>Where is the "time" scale on a Smith Chart?
>---

ah Punchinello!

Cecil chooses to employ time to explain things, it is not a necessity
in and of itself.

You certainly have trouble with it being simply Phase which IS heavily
invested in the Smith Chart. Your usual excellent trolling has fallen
in quality this season - too much egg nog? ;-)

73's
Richard Clark, KB7QHC

3892. Re: 1/4 vertical versus 1/2 dipole questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 23:17:03 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DEE8CEF.9139BBAD@cwis.net>
Source record: 129931

Adam,
I'm not so sure that the cable over the patio wouldn't
affect the dipole, depends on the length of the cable to
an extent.
I really wouldn't worry about the losses in the coax too
much. A 100 foot feed line at 20 meters of almost any coax,
should work just fine. Giving away the extra height by
mounting the dipole over the patio would have more affect
that the feed line losses.
Moving the antenna further from your house also has the
benifit of helping with any RFI you may have. Antennas closer
to the electical devices in your house tend to cause RFI.
As I said before, try various places and ways of putting
up your dipole. You don't have to make it 'permanent' to start
with.
'Doc

3893. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 23:55:57 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asm4m7$96d$1@slb9.atl.mindspring.net>
Source record: 129932
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Bill:

You are getting very close to a deep understanding of power matching.

It's interesting that you let the frequency go to very low values like
1.0Hz.

OK... now mext let the frequency continue downward from 1Hz towards zero Hz,
go in log
steps, say 0.1Hz, then 0.01Hz, then 0.001Hz until finally in the limit you
reach 0.0Hz.

Now at DC (0.0Hz) does VSWR mean anything?

Is there any reflected power in the system at DC?

What does conjugate match at DC mean?

Will the SWR meter still work at DC?

If not, then what is the magic frequency [fm = magic frequency] below which
all reflections stop and VSWR becomes meaningless and why?

Food for thought. If a theory/visualization of reflection dynamics is to be
valid, then it must be valid for all regimes, from DC up to the highest
frequencies, otherwise it is invalid.

Think about it...

--
Peter K1PO
Indialantic By-the-Sea, FL

"Bill M" <""exray\"@n-o- .caribe.net> wrote in message
news:uut067maoanr86@corp.supernews.com...
> Reg Edwards wrote:
> > Cecil, reflections involve time. But you never mention the stuff in your
> > explanations of how and why things work.
> >
> > Where is the "time" scale on a Smith Chart?
> > ---
> > ==========
> > Regards from Reg G4FGQ
>
> Here's a verbo-visual image that I wonder if it would be correct? If we
> were to slow things down from say 14 MHz to maybe one hertz or less and
> could shoot out a single cycle of energy, we would start by seeing the

> forward needle rise to 100 while the reverse slowly barely lifts from
> zero. Then we would see the forward needle drop back towards zero (but
> not all the way unless it was a directional coupler type of circuit)
> while the reverse crept up to 50. Note particularly that the forward
> meter hasn't reached zero before the reflected meter starts indicating
> power....the time delay being simply based on the length of the line.
> Then the process would be repeated but on the second cycle there would
> be an increase in the forward indication because the reflected wave is
> hitting a who-knows-what match at the xmtr output and bounces back in
> the forward direction.
> So logically there is more than the original 100 'watts' reading that
> was seen on the first cycle. I'll let the math pros have at it because
> I think this second cycle 'forward' reading gets rather complicated.
> There is the xmtr out, minus the feedline loss to the load, the amount
> of reflected voltage due to the mismatch, feedline loss again, then
> another (possibly unknown) amount of reflected voltage seen at the xmtr
> output terminal...then its phase relationship with the actual
> transmitted signal.
> The third cycle has all of that plus more...and so on.
>
> The point is that a reading of 150 watts forward and 50 reflected
> doesn't simply indicate a 'real' output power of 100 watts. It may be
> pretty close but I suspect there's enough 'if factors' to keep it from
> being a rule-o-thumb. Based on the same thought, the '50 watts
> reflected' isn't going to be particularly accurate either after the
> first cycle.
> Maybe there IS a rule-of-thumb that can be applied and possibly it will
> in fact approach the simplified 150-50=100 once this process has been
> repeated 14 million+ times in a second.
>
> So yes, time is obviously a factor. Each repeated cycle will increase
> the voltages read but after a few cycles the voltage addition rules make
> it moot since the succesive increases are so small....so its pretty easy
> to ignore 'time' at 14 Mhz unless one goes back to extract the behaviour
> of a single cycle or two, in which case, apples are being compared to
> oranges.
>
> My 2 centavos.
>
> -Bill WX4A/KP4
>

3894. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-04 23:57:49 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asm4pn$ip9$1@slb3.atl.mindspring.net>
Source record: 129933
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Reg:

[snip]
"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:asls3v$91e$2@helle.btinternet.com...
> Peter wrote -
> > that so called "reflected power" must then be just a fiction!
> >
> > Why the hell do we need "reflected power"
>
> ============================
>
> Peter, you must drink the same stuff as I do.
>
> Down with SWR meters! Up with the TLI.
>
> Reg, G4FGQ
[snip]

Yep, a few pints of "Directors" and a big plate of "bangers and mash" at the
local pub.

I wish I was in Merry Olde England again for the Holidays. Maybe next year.

Happy Holidays,

--
Peter K1PO
Indialantic By-the-Sea, FL

3895. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 00:03:06 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <asm51m$si4rj$1@ID-140397.news.dfncis.de>
Source record: 129934
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:aslvoh$2hd$1@knossos.btinternet.com...
>
> Brian, there you go again, unnecessarily complicating and confusing
matters.
>
> Regardless of line and load impedances, all power leaving the generator
must
> be dissipated in load. There is nowhere else for the stuff to go.

Well maybe not in your set up as you claim to have no transmission lines.

However, most people do and all have losses. A 3dB feeder loss means 1/2 the power never even gets to the load, any reflected power is also attenuated by 3dB before being bounced back again by toward the load. That is why you can use a long length of coax as a dummy load- even if it is unterminated- in that case nothing gets dissipated in the load it all does in the line.

Try a worked example: 10W from the tx to a line with 3dB loss to a 25 ohm load (all in a 50 ohm system)

Forward line loss is 5W, 2.5W goes 'into' load, and 2.5W is reflected. Of the 2.5W reflected 1.25W is lost in the line on the return journey.

Even ignoring any more reflections (at the tx back to the load) the line is dissipating 6.25W and the load 2.5W and there is only 1.25W to 'share' on future trips. That power seems to have found somewhere else to go other than the load.

Out of curiosity, which type of generator (perfect or Thevinin) do you assume in your 'analysis' ? I suspect that is where you are going wrong.

Reg, you call the SWR meter a TLI if you want but you do the hobby (esp. newcomers) no favours by your ill thought out ideas.

73

Brian

3896. Re: Disruptive Technolgies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 00:06:37 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asm5a6csl1@slb6.atl.mindspring.net>
Source record: 129935

Nathan:

[snip]
"Fractenna" <fractenna@aol.com> wrote in message
news:20021204113224.21612.00000250@mb-mu.aol.com...
> Actually, FM might be considered disruptive. I've had some fun mulling
this
> one while I have been testing some 900 MHz-2.4 GHz antennas (about 2/3 of
an
> inch in size).
>
> The Yankee Network does seem to have qualified as a niche market, which
RCA
> ignored as not of interest.
>
> I'm reasonably well educated on Armstrong's and Hammond's patents and
> backgrounds (among others), so this fact seems to have escaped my middle
aged
> memory.
>
> 73,
> Chip N1IR
[snip]

I think you had better check your references before you start slinging
around business school bafflegab as well
as scientific bafflegab. Moving to a new academic domain will not allow you
to escape scrutiny and questioning.

I wonder did you attend HBS or are you just a casual reader of HBR?

I checked all of my back issues of HBR and I believe your attribution for
the terminology "Disruptive
Technologies" is incorrect, it was in fact Arthur Porter who originated the
terminology.

--
Peter K1PO
Indialantic By-the-Sea, FL

3897. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 00:07:47 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <uut65dh39g4925@corp.supernews.com>
Source record: 129936
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Peter O. Brackett wrote:
> Bill:
>
> You are getting very close to a deep understanding of power matching.
>
> It's interesting that you let the frequency go to very low values like
> 1.0Hz.
>
> OK... now mext let the frequency continue downward from 1Hz towards zero Hz,
> go in log
> steps, say 0.1Hz, then 0.01Hz, then 0.001Hz until finally in the limit you
> reach 0.0Hz.
>
> Now at DC (0.0Hz) does VSWR mean anything?
>
> Is there any reflected power in the system at DC?
>
> What does conjugate match at DC mean?
>
> Will the SWR meter still work at DC?
>
> If not, then what is the magic frequency [fm = magic frequency] below which
> all reflections stop and VSWR becomes meaningless and why?
>
> Food for thought. If a theory/visualization of reflection dynamics is to be
> valid, then it must be valid for all regimes, from DC up to the highest
> frequencies, otherwise it is invalid.
>
> Think about it...
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL

The way I see it, AC is AC no matter how you slice it. It won't ever be
DC. There is a distinct dividing line between the two even if you get
down into the cycles-per-century scale.
Of course then again, the 'time' context matters in such a case to
distinguish the two. Same as it does in visualizing SWR.

-BM

3898. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 00:10:38 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <asm5fp$t2tg6$1@ID-140397.news.dfncis.de>
Source record: 129937
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:asm4pn$ip9$1@slb3.atl.mindspring.net...
>
> Yep, a few pints of "Directors" and a big plate of "bangers and mash" at
the
> local pub.
>
You have sadly missed out on good beer if you remember "Directors" - yuk.

You need to head north, to the land of the Geordie, and try Newcastle
Exhibition and Newcastle Brown Ale.

> I wish I was in Merry Olde England again for the Holidays. Maybe next
year.
>

Well I hope you have a good Xmas where ever you find yourself.

I'm sorry we sent Ann Robinson and 'Bass' over there, nothing to do with me,
but I heard it was revenge for not inviting us to the Boston Tea Party ;-)

73

Brian
G8OSN
www.g8osn.org.uk

3899. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 00:19:10 UTC
From: "Stephen C. Robbins" <srobbinsNoSPaMDUDES@netacc.net>
Message-ID: <3dee9b4c$1@news.netacc.net>
Source record: 129939

"Kedrid" <Kedrid@kedrid.com> wrote in message
news:aslp9o$b79$1@slb6.atl.mindspring.net...
> Ok I know this will sound dumb, but!! Why not just go BUY a short peice of
> Copper grounding wire?

Yup, your right. Sounds dumb. Then have your copper wire to aluminum antenna connection up 40 foot in the air where it is easy to service on cold rainy freezing days.

You use aluminum wire down from the antenna so the connection most likely to need servicing is within reach.

Steve

3900. Re: CAM or anyone? 40 meter antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 00:20:36 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <g7adnTC-VJ7LBnOgXTWcoQ@comcast.com>
Source record: 129938

I would drop both ends 1/2 the amount to keep the currents balanced. Why do you have to come straight down? Can you go past the tree and make it 45 degrees?

Tam/WB2TT
"nospam" <xxxmmxxx@xxxspiritone.com> wrote in message news:3DEE3ED5.E64881BA@xxxspiritone.com...
> My 40 meter dipole is about 30 ft up.
>
> I need to run part of one end of it down vertically on the
> tree that supports it. Only about 7 or 8 ft of the 32' on
> this one end will be vertical.
> The other end will still be completely horizontal.
>
> Will this affect performance any?
>
> _____XXX_____
> |
> |
> |
> |
>
>
>
>
>
>
>

3901. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 00:22:49 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asm68j$f3j$1@slb0.atl.mindspring.net>
Source record: 129940
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Brian:

Hey we like Anne she's kinda cute!

Best Regards,

--
Peter K1PO
Indialantic By-the-Sea, FL

"Brian Reay" <brian.reay@bigfoot.com> wrote in message
news:asm5fp$t2tg6$1@ID-140397.news.dfncis.de...
> "Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
> news:asm4pn$ip9$1@slb3.atl.mindspring.net...
> >
> > Yep, a few pints of "Directors" and a big plate of "bangers and mash" at
> the
> > local pub.
> >
> You have sadly missed out on good beer if you remember "Directors" - yuk.
>
> You need to head north, to the land of the Geordie, and try Newcastle
> Exhibition and Newcastle Brown Ale.
>
> > I wish I was in Merry Olde England again for the Holidays. Maybe next
> year.
> >
>
> Well I hope you have a good Xmas where ever you find yourself.
>
> I'm sorry we sent Ann Robinson and 'Bass' over there, nothing to do with
me,
> but I heard it was revenge for not inviting us to the Boston Tea Party ;-)
>
> 73
>
> Brian
> G8OSN
> www.g8osn.org.uk
>
>

3902. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 00:37:00 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asm736$ti3$1@slb9.atl.mindspring.net>
Source record: 129941
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Brian:

[snip]
> Reg, you call the SWR meter a TLI if you want but you do the hobby (esp.
> newcomers) no favours by your ill thought out ideas.
>
> 73
>
> Brian
[snip]

Take care Brian, Reg actually knows how SWR meters work, he as an excellent program on his site explains the internal circuit and workings of those venerable
and mis-named devices and he has a free program on his site that will help you to
design your own TLI/VSWR meter. Check it out.

It's all really very simple here's the full details in the one neat mathematical equation emulated by
most every so-called "[V]SWR meter ~ B = V - RI:

V is the "actual voltage" across the load impedance Z.
I is the "actual current" passing through the load impedance Z.

Z = V/I ~ The unknown impedance, |V/I| is the magnitude of Z, and theta = arctan(Im[Z]/Re[Z]) is the phase angle of Z.
R ~ The "arbitrary" reference impedance. Most use R = 50 Ohms resistive, but it could be anything depending upon
what you wanted to do with your meter.

A = V + RI ~ The ficticious forward voltage, calculated by the "internal" analog computer in the VSWR meter.
B = V - RI ~ The ficticious reflected voltage, calculated by the "internal" analog computer in the VSWR meter.

P = V*I cos(theta) is the "actual real power" dissipated in the real part of the load impedance Z.

When V = RI then the TLI indicates that B = 0 and the load is "matched".

What could be simpler. The TLI a concept whose time has come.

No reflected power needed!

--
Peter K1PO

Indialantic By-the-Sea, FL

3903. Re: Radiation 101 (please)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 00:37:25 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <5dxH9.7024$rv5.977135@news20.bellglobal.com>
Source record: 129944

"Reg Edwards"
> You just enjoy interminable discussions. ;o)

Not at all. What you see is what I am - hidden motives usually pretty close to zero. Since this is the world famous r.r.a.a NG, then why not discuss the basics of EM radiation ?

My concern (not quite the right word) was about your description of the mechanism of radiation depending upon the collapsing field. This doesn't feel right.

For example, if a battery is connected to a solenoid, then an EM wave will be developed and will radiate - **even if the battery is not disconnected** (until tomorrow afternoon). The sharp rising edge step function can be applied electronically to avoid arcing.

The radiation can be detected on an AM radio across the room. If the solenoid and battery are 'Mad Science' large, then you can 'fry' the AM radio across the room and any other solid state electronics in the area. Perhaps this is a near field effect, but this 'signal' will certainly radiate into the far field.

Remember, **the field doesn't collapse** until tomorrow afternoon.

The process of EM radiation *obviously* does not 'depend upon' collapsing fields.

Elucidation welcome.

3904. Re: Disruptive Technolgies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 00:39:10 UTC
From: fractenna@aol.com
Message-ID: <20021204193910.01527.00000165@mb-cr.aol.com>
Source record: 129942

>I think you had better check your references before you start slinging
>around business school bafflegab as well
>as scientific bafflegab. Moving to a new academic domain will not allow you
>to escape scrutiny and questioning.
>
>I wonder did you attend HBS or are you just a casual reader of HBR?
>
>I checked all of my back issues of HBR and I believe your attribution for
>the terminology "Disruptive
>Technologies" is incorrect, it was in fact Arthur Porter who originated the
>terminology.
>
>--
>Peter K1PO
>Indialantic By-the-Sea, FL
>

I don't seem to recall making any claim on who came up with that moniker.

But, like virtually all the statements you have made of late, they are designed to make me look foolish, with the intent to discredit. They have no basis in fact.

For example: your statement regarding almost all the technologies you listed indicates you do not seem to be aware what a disruptive technology is.

The standard reference regarding disruptive technologies is Professor Christensen's book:"The Innovator's Dillemma". Thus my allusion.

My wife (HBS '87) and I have a signed copy. I imagine that the 4 other HBS folks I work closely with also own copies, based upon our lively discussions of the matter.

I'd enjoy looking at the HBS article you allude to. Could you kindly provide a reference? Also, can you cite links or references which support your assertion (of being 'disruptive') on the various technologies you listed?

73,
Chip N1IR

3905. Re: 1/4 vertical versus 1/2 dipole questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 00:39:57 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212041639.38860268@posting.google.com>
Source record: 129943

adam.white@sbcglobal.net (Adam White) wrote in message
news:<3dee31cc.602487050@news.dallas.sbcglobal.net>...
> Thanks to you who have already responded to my questions! One
> additional thought that has just occurred to me: the *easiest* place
> for me to mount that dipole would be right on top of the 30' by 30'
> patio area. In a matter of about 5 minutes I could erect three wooden
> supports -- one at opposite corners and one in the middle -- on the
> flat "roof" of the patio. If those supports extended, say, 5 feet
> above the roof then my dipole would be 15 feet above ground. That's
> lower than optimum, but it would ve extremely secure and easy to reach
> / modify. Since that's so easy I think I'll try it first. So here's
> my belated question: that cable I described which is on top of the
> patio would now be only 5 feet below the dipole. There would be no
> direct contact, but what if any effect would the cable have? If it's
> likely to be negligible then I'll proceed with this plan first (the
> patio is closer to my house and would require even less feed line than
> either of the other two potential dipole locations I mentioned).
>
> Adam

If the cable in inline with the antenna wire, it could effect the
tuning. If the cable is at right angles, it probably will have little
effect. BTW, I vote for the dipole for 20m use over the vertical. The
vertical might make a good "2nd" antenna, but I doubt it will beat the
dipole on medium paths. Maybe even the longer paths. Even a fairly
low dipole "20-30 ft high" is high enough off the ground in terms of
wavelength to work pretty well. You should have no problem working
anyone as long as the band cdx are ok. Also, if I were to run a
vertical on 20m, it would not be a ground mount. I would use an
elevated ground plane, or 1/2 or 5/8 wave vertical. Even a storebought
compromise R7 or R8 will likely beat a ground mount unless it's got
half a zillion radials under it for 20m use. It's my opinion that
verticals should never be ground mounted. I consider it about as smart
as ground mounting a dipole. The only reason I don't complain about
it on the low bands, is you usually have no choice. On the higher
bands, this is not the case. Myself, 20 meters and above, I would
NEVER, EVER, run a ground mount vertical. But thats just me...I ran a
full size 5/8 ground plane at 36 ft on 17m. "Doubled as a 1/4 wave GP
on 40m". On 17m, that antenna beat all my other ones including the
dipoles. But if it were ground mounted, it would have been a dud I
bet. MK

http://web.wt.net/~nm5k/

3906. Re: built-in SWR meter effectiveness

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 00:56:36 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212041656.6658881b@posting.google.com>
Source record: 129945

adam.white@sbcglobal.net (Adam White) wrote in message
news:<3dee33ab.602966159@news.dallas.sbcglobal.net>...
> I have a fairly new (2001) Icom 706MKIIG which includes a built-in SWR
> meter. I've previously used this meter to tune a 20m dipole and it
> seemed to work satisfactorally for that. I'm just curious, though,
> whether the built-in SWR meter is as effective as a stand-alone SWR
> meter? I'm about to call Icom and ask this question, but thought I'd
> ask it here, too -- to get an unbiased answer!

Sure it is. That one reason why I have preferred icom mobile rigs in
the past. I didn't have to drag around an extra SWR meter with me.
Many of the older kenwood mobiles had no built in meter... In one
sense, I consider it better than an outboard meter. Why? Common mode
currents , varying feedline lengths, etc can skew an outboard meter
and cause it to read slightly different than the one in the radio. But
what the radio sees is what matters the most as far as power foldback.
If the radio's meter shows a good match, as far as the radio is
concerned, it should be. No use in having a 2nd opinion unless you
just like to watch meters. It's plenty accurate enough for gov work. I
have a 2nd meter in my tuner, and use it because it's a big and easy
to see dual needle meter, but mobile or portable, I use the one in the
rig. I have a mk2g and the meter seems to work fine to me. It's also
auto setting, so you don't have to calibrate for varying power levels.
MK

3907. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 01:15:45 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <asm99u$sqic8$1@ID-140397.news.dfncis.de>
Source record: 129946
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:asm736$ti3$1@slb9.atl.mindspring.net...
>
> Take care Brian, Reg actually knows how SWR meters work, he as an
excellent
> program on his site explains the internal circuit and workings of those
> venerable
> and mis-named devices and he has a free program on his site that will help
> you to
> design your own TLI/VSWR meter. Check it out.
>

Oh I'm aware of Reg's work.

Problem is that the theory isn't exactly new and I get irked when someone rehashes an old idea and just ends up confusing things. Reg used to post in one of the uk groups but stopped when his 'new' theories were 'uncovered'.

We have enough problems with people knocking our new licensees (the Foundation Licensees, like the old US Novice) the last thing you need is someone confusing the technical stuff they are learning!

73

Brian

3908. Re: Radiation 101 (please)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 01:24:14 UTC
From: richardharrison@webtv.net
Message-ID: <28940-3DEEAABE-11@storefull-2312.public.lawson.webtv.net>
Source record: 129948

J. Harvey wrote:
"My concern (not quite the right word) was about your (Reg Edwards`) description of the mechanism of radiation depending on the collapsing field."

Usually we are able to interrupt electricity more abruptly than we can start it. Reactance slows electrical rise. That is why radiation is most often larger from opening a contact than from closing it.

Best regards, Richard Harrison, KB5WZI

3909. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 01:37:42 UTC
From: Jim Hancock <jim40@ptdprolog.net>
Message-ID: <3DEEAC19.B0F748C@ptdprolog.net>
Source record: 129947

National Electrical Code, if it applies where you live, doesn't allow
aluminum ground wire within 18" of the ground. You would need to use a
10' ground rod driven 8' to comply. DON'T solder any ground connection!
This is also a code violation and safety hazard. Any lighting strike
will melt the solder and you'll lose your ground when you need it most.
You also need to connect the new ground rod to your service ground. This
will prevent a difference in ground potential between the two systems
which could become a shock hazard. This is also a code requirement.
Best solution would be a #6 copper ground wire attached to antenna mast
using an AL/CU lug bolted to the mast. Use NOALOX on the back of the lug
to help with the oxidation. Coating of silicon caulk over the connection
wouldn't hurt.
Copper will also stay tighter in the lug and won't break as easy as the
aluminum from the wind vibrations in your antenna.
Hope this helps.

Dick Carroll wrote:

> JELo wrote:
>
> > Got a copper pipe in the ground
> > and a bronze grounding clip -
> > can I connect my 8 gauge
> > aluminum antenna ground wire
> > directly to the bronze clip
> > or do I need to do something special?
>
> Home building supply or electrical suppliers sell a bimetal clamp
> designed to be used with copper/steel ground rods that allow
> different metals to be joined without electrolysis problems. I'd get
> one if you want it to be reliable, and I'd find out for sure that it
> IS one that will work with aluminum. Losing your ground without
> knowing about it can be dangerous, even deadly.
>
> Dick

3910. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 02:00:40 UTC
From: richardharrison@webtv.net
Message-ID: <28939-3DEEB348-17@storefull-2312.public.lawson.webtv.net>
Source record: 129949

Steve Robbins wrote:
"You use aluminum wire down from the antenna so the connection most likely to need servicing is within reach."

Reasonable, but use Nicopress and you never need service a splice or tap regardless of metals joined.

Search on "Nicopress". Nicopress sleeves are applied with such force that moisture is excluded and thermal expansion can`t loosen the grip on the metals joined.

Best regards, Richard Harrison, KB5WZI

3911. RE: Disruptive Technologies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 02:15:33 UTC
From: fractenna@aol.com
Message-ID: <20021204211533.21094.00008631@mb-fx.aol.com>
Source record: 129950

Hi P.O!

I asked the XYL if she had the HBR issue with the first discussion of 'disruptive technologies'. Of course, she had it: its in a 1995 ish. Author Joe Bower and Clay Christiansen.

73,
Chip N1IR

3912. Re: Disruptive Technologies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 02:38:45 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <uutf0ff6ndp50a@corp.supernews.com>
Source record: 129951

Fractenna wrote:
> Hi P.O!
>
> I asked the XYL if she had the HBR issue with the first discussion of
> 'disruptive technologies'. Of course, she had it: its in a 1995 ish. Author Joe
> Bower and Clay Christiansen.
>
> 73,
> Chip N1IR
>
>

What a woman!
-ex

3913. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 02:42:28 UTC
From: k1bqt@aol.com
Message-ID: <20021204214228.23924.00000162@mb-cv.aol.com>
Source record: 129952

>...you do not seem to be aware what a disruptive technology is.<

One should not confuse disruptive technology with disruptive behavior.

Rick K1BQT

3914. Re: Radiation 101 (please)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 03:04:30 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <_mzH9.7090$rv5.1021288@news20.bellglobal.com>
Source record: 129953

"Richard Harrison"
> Usually we are able to interrupt electricity more
> abruptly than we can start it. Reactance slows
> electrical rise. That is why radiation is most often
> larger from opening a contact than from closing it.

My point is that radiation DOES occur, and I haven't disconnected the battery yet. The field hasn't collapsed, and yet radiation has occurred. Ergo ipso facto SPQR RSVP CQDX - the argument that radiation depends upon field collapse can't be the whole story.

By the way, that very same inductance slows electrical fall by exactly the same mechanism. That's why there is a spark as you try to interupt the current. The spark would cause "extra" radiation. That's why I specified an electronic switch - to avoid the distraction of the spark and its radiation.

3915. Q: Is 100mW at 802.11b safe????

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 03:17:08 UTC
From: jeff <penn@name.com>
Message-ID: <UyzH9.45081$kO5.5045310@news1.news.adelphia.net>
Source record: 129954

Hi everyone,

I don't know much about antenna, but I just learned how to increase the power output of my home network wireless access point from 30mW to 100mW. The hack works great, and now my access point does to. A very noticeable performance increase.

I'm wondering how concerned I should be with a device in the corner of my living room outputting 100mW 24 hrs a day. I think I remember reading that RF danger is not only power, but the frequency.

Should I be concerned?

Jeff F

3916. Re: Radiation 101 (please)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 03:38:23 UTC
From: richardharrison@webtv.net
Message-ID: <7887-3DEECA2F-13@storefull-2313.public.lawson.webtv.net>
Source record: 129956

J. Harvey wrote:
"I didn`t know it (radiation) was a timing issue."

As electrical charge and current change, their resulting fields change. A field is the effect exerted through a distance. Iron is attracted in a magnetic field. Paper is attracted in an electric field. These effects appear at a distance with the speed of light or somewhat more slowly.

A changing magnetic field creates a changing electric field. A changing electric field creates a changing magnetic field.

So, as these fields race away in space, they regenerate each other. The rub is that in a vacuum there is nothing to conduct a current.

It was Maxwell who speculated that displacement (the kind of current that flows in the non-conductive space between capacitor plates) current generates a magnetic field the same as conduction current does. Radiation in space requires no conduction, only displacement current. Maxwell was right. Hertz proved Maxwell correct.

Self-induction happens in the near field from the energy closest to the radiator, but some energy is far enough removed in distance and phase to be uninvolved in self induction and it gets away as fugitive energy in space. That`s how radiation happens. The energy is flip flopping between the electric and magnetic fields.

Best regards, Richard Harrison, KB5WZI

3917. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 03:41:41 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <fdhtuukhui8kvdtr4ccnd6brsbot5tt8ql@4ax.com>
Source record: 129955

On 4 Dec 2002 14:48:36 -0800, nm5k@wt.net (Mark Keith) wrote:

|aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message Everybody knows that illegals are not deported now
|> or even reported by the police so certainly none of the 'illegals' are
|> down trodden today.
|
|Not the case here. INS does sweeps of likely hangout places regularly here.
|IE: labor force pickup spots, etc. If they get caught, they go back to Mexico.
|Of course, then they just eventually come back again, and start over. MK

With the beefing up of security at the major border crossing points, the Mexicans have in increasing numbers started crossing here in the Arizona and California deserts. (I was almost hit while traveling eastbound on I-8 east of El Centro, when a Ford Explorer burst through the fence on the south side of the highway, crossed my lane, the median and headed west.)

It's happened several times locally that an overload PU will blow a tire or otherwise lose control and crash, thus injuring or killing up to 20 people. The survivors then are entitled to the best medical care, including a helicopter ride to the nearest hospital, that Arizona taxpayers can (ill)afford. It is *publicly stated* Border Patrol policy to *NOT* arrest or detain these individuals because once the feds take custody, they become responsible for the medical bills. If they are detained at all, it is after they receive their free treatment. (With a $1B deficit, our legislature will be looking into how we will be funding kidney dialysis for *illegal aliens*. It's their "right" doncha know) I

Consequently, we have had several level one trauma centers close and are now down to one to serve almost a million citizens and who knows how many illegals.

This country is nutty as a fractal antenna.

3918. Re: Q: Is 100mW at 802.11b safe????

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 03:49:12 UTC
From: fractenna@aol.com
Message-ID: <20021204224912.01552.00000193@mb-cr.aol.com>
Source record: 129957

>Hi everyone,
>
>I don't know much about antenna, but I just learned how to increase the
>power output of my home network wireless access point from 30mW to 100mW.
>The hack works great, and now my access point does to. A very noticeable
>performance increase.
>
>I'm wondering how concerned I should be with a device in the corner of my
>living room outputting 100mW 24 hrs a day. I think I remember reading that
>RF danger is not only power, but the frequency.
>
>Should I be concerned?
>
>Jeff F
>
>

For breaking Type acceptance?

You bet!

NC

3919. Re: Q: Is 100mW at 802.11b safe????

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 03:53:25 UTC
From: dplatt@radagast.org
Message-ID: <uutjdlsvabope5@corp.supernews.com>
Source record: 129958

>Hi everyone,
>
>I don't know much about antenna, but I just learned how to increase the
>power output of my home network wireless access point from 30mW to 100mW.

Software patch to the A/P's firmware?

>The hack works great, and now my access point does to. A very noticeable
>performance increase.

Tripling the power would give you about an 80% increase in range
(assuming a fairly simplistic model on how the signal is propagating).

Most of the inexpensive consumer-grade cards and access points seem to
be rated for about 15 dBm of power (30 milliwatts)... the
Cisco/Aironet models can be cranked up to 20 dBm (100 mW) as a
supported feature.

>I'm wondering how concerned I should be with a device in the corner of my
>living room outputting 100mW 24 hrs a day. I think I remember reading that
>RF danger is not only power, but the frequency.

Proximity is a big issue, also, and also duty cycle.

The FCC regulations which cover 802.11b operation allow a "point to
multipoint" device such as an A/P or PCMCIA card to transmit at power
levels of up to 4 watts effective radiated power (isotropic). Since
most such devices have antennas with a few dB of directional gain, a
more usual (equivalent) standard is 1 watt of power delivered into a 6
dBi antenna.

Even hopped up as it is, your access point is transmitting only a
tenth of the legally-permitted power, and you're probably sitting at a
good distance from it.

It's worth remembering that the transmit duty cycle of an 802.11b
access point is generally pretty low. When not in active use, it's
sending out a short "beacon" packet 10 times per second, and is idle
the rest of the time... the duty cycle isn't over a few percent, which
means that the average power is only a few milliwatts.

You're likely receiving as much, or more RF exposure on a day-to-day
basis from the 802.11b card in your laptop (or whatever) - even though
you use it for relatively brief periods, you're a lot closer to it.

A 2.4GHz wireless camera/video-sender product probably transmits a
similar amount of power (15 dBm or so), but with a duty cycle of 100%.
If you've got one of these in your house you're already exceeding the

802.11b RF levels by quite a bit.

Microwave ovens also operate in this band (most commonly) and their shielding is far from perfect... 802.11b LANs and video senders tend to suffer from significant interference whenever a microwave oven is turned on. If you use a microwave regularly, this could quite well expose you to more total energy in the 2.4GHz ISM band than your access point does.

So, my guess is that you probably haven't increased your RF exposure level enough to matter.

You probably _have_ increased your _legal_ exposure by a very small amount, in that your mod to the AP has probably voided its Part 97 FCC certification.

If you end up causing interference with other users of the 2.4 GHz ISM band (which would include licensed amateur radio operators working the 13 cm ham band), it'd be your legal responsibility to shut down, un-hack the A/P, rearrange your antenna, install tin-foil drapes, or do whatever else was necessary to eliminate the interference.

It seems very unlikely to me, though, that anyone would ever make an issue of this.

Please do make sure that you've enabled proper security on your access point (WEP, MAC-address restrictions, "stealthing" of the network ID, etc.), so that you don't find neighbors, drive-by spammers, etc. making use of your Internet connection and your home LAN without your knowledge and approval.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

3920. Re: Q: Is 100mW at 802.11b safe????

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 03:56:45 UTC
From: dplatt@radagast.org
Message-ID: <uutjjtffuqj168@corp.supernews.com>
Source record: 129959

In article <uutjdlsvabope5@corp.supernews.com>,
Dave Platt <dplatt@radagast.org> wrote:

>You probably _have_ increased your _legal_ exposure by a very small
>amount, in that your mod to the AP has probably voided its Part 97 FCC
>certification.

Gnngh. Brain-fart. 802.11b is under Part 15, of course.
Amateur radio is Part 97.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3921. Re: Radiation 101 (please)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 04:02:30 UTC
From: tdonaly@aol.com
Message-ID: <20021204230230.28129.00000160@mb-cf.aol.com>
Source record: 129960

Harvey wrote,
>
>Not at all. What you see is what I am - hidden motives usually pretty close
>to zero. Since this is the world famous r.r.a.a NG, then why not discuss
>the basics of EM radiation ?
>
>My concern (not quite the right word) was about your description of the
>mechanism of radiation depending upon the collapsing field. This doesn't
>feel right.
>
>For example, if a battery is connected to a solenoid, then an EM wave will
>be developed and will radiate - **even if the battery is not disconnected**
>(until tomorrow afternoon). The sharp rising edge step function can be
>applied electronically to avoid arcing.
>
>The radiation can be detected on an AM radio across the room. If the
>solenoid and battery are 'Mad Science' large, then you can 'fry' the AM
>radio across the room and any other solid state electronics in the area.
>Perhaps this is a near field effect, but this 'signal' will certainly
>radiate into the far field.
>
>Remember, **the field doesn't collapse** until tomorrow afternoon.
>
>The process of EM radiation *obviously* does not 'depend upon' collapsing
>fields.
>
>Elucidation welcome.
>
Try the acceleration of charge as a cause of radiation. Feynman writes about
it
in his _Lectures On Physics_ available in book stores everywhere. Of course,
if you
know that accelerating charge causes radiation then you might ask what causes
the
charge to accelerate. You'll probably have more fun asking this question on a
physics newsgroup. There is a large contingent of resident crackpots writing
to
such groups and the answers are liable to be more entertaining than what you'll

get here.
73,
Tom Donaly, KA6RUH

3922. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 04:11:32 UTC
From: tdonaly@aol.com
Message-ID: <20021204231132.28129.00000161@mb-cf.aol.com>
Source record: 129961

Peter wrote,
>(typical obfuscatory hogwash skipped)
>Food for thought. If a theory/visualization of reflection dynamics is to be
>valid, then it must be valid for all regimes, from DC up to the highest
>frequencies, otherwise it is invalid.
>
>Think about it...
>
>--
>Peter K1PO
>Indialantic By-the-Sea, FL
>

You said it, Peter, now prove it. Your proofs are often very
entertaining.

Tom Donaly, KA6RUH

3923. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 04:20:42 UTC
From: richardharrison@webtv.net
Message-ID: <3677-3DEED41A-79@storefull-2315.public.lawson.webtv.net>
Source record: 129962

Bill, WX4A/KP4 wrote:
"My dos centavos."

The Bird wattmeter takes a sample of voltage across the coax and the current in the coax. It scales the two samples to equal quantities.

The incident wave has voltage and current in-phase. The reflected wave has voltage and current 180-degrees out-of-phase.

Thus the reflected wave samples cancel with the slug pointed to measure forward power.

In the reverse power direction, polarity of the voltage and current samples are inverted. So the forward power samples cancel and the reverse power samples add in-phase and register on the meter.

The idea is simple and workes well due to craftsmanship and calibration.

My two cents.

Best regards, Richard Harrison, KB5WZI

3924. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 05:04:20 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DEEEC92.2E12BB5D@townsqr.com>
Source record: 129963

Mark Keith wrote:

tdonaly@aol.com (Tdonaly) wrote in message
> I guess in a place like Texas a man needs a gun in order to make sure he
> sees his next birthday. It's different in other parts of the U.S. where people
>
> are more on the civilized side.

No, there is no real difference at all

Sure there's a difference, Mark. In Texas, as in other places with concealed carry laws, the owlhoots aren't the only ones carrying, and don't think the baddies don't know it. Or soon find out. As someone said, where anyone is likely to be packing heat people are *very* polite to each other.

I have a brother who lives in Texas who told me not long ago, as we discussed this subject, that there was a recent case where a hoodlum showed up in a restaurant and stuck a gun in the cashier's face, whereupon TWO patrons stood up and plugged him. Don't think you'll see that on the Left coast. And you'll see it far less often in Texas in the future, too. They do eventually get the word.

3925. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 05:07:56 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEEDF2C.4070406@ieee.org>
Source record: 129964
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Reg Edwards wrote:
> Cecil, reflections involve time. But you never mention the stuff in your
> explanations of how and why things work.
>
> Where is the "time" scale on a Smith Chart?

Same place the time scale is on an RMS Simpson meter.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3926. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 05:13:14 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DEEEEAB.19DDF1C7@townsqr.com>
Source record: 129965

Wes Stewart wrote:

> On 4 Dec 2002 14:48:36 -0800, nm5k@wt.net (Mark Keith) wrote:
>
> |aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message Everybody knows that illegals are not deported now
> |> or even reported by the police so certainly none of the 'illegals' are
> |> down trodden today.
> |
> |Not the case here. INS does sweeps of likely hangout places regularly here.
> |IE: labor force pickup spots, etc. If they get caught, they go back to Mexico.
> |Of course, then they just eventually come back again, and start over. MK
>
> With the beefing up of security at the major border crossing points,
> the Mexicans have in increasing numbers started crossing here in the
> Arizona and California deserts. (I was almost hit while traveling
> eastbound on I-8 east of El Centro, when a Ford Explorer burst through
> the fence on the south side of the highway, crossed my lane, the
> median and headed west.)
>
> It's happened several times locally that an overload PU will blow a
> tire or otherwise lose control and crash, thus injuring or killing up
> to 20 people. The survivors then are entitled to the best medical
> care, including a helicopter ride to the nearest hospital, that
> Arizona taxpayers can (ill)afford. It is *publicly stated* Border
> Patrol policy to *NOT* arrest or detain these individuals because once
> the feds take custody, they become responsible for the medical bills.
> If they are detained at all, it is after they receive their free
> treatment. (With a $1B deficit, our legislature will be looking into
> how we will be funding kidney dialysis for *illegal aliens*. It's
> their "right" doncha know) I
>
> Consequently, we have had several level one trauma centers close and
> are now down to one to serve almost a million citizens and who knows
> how many illegals.
>
> This country is nutty as a fractal antenna.

None of this is new stuff either. I recall from the mid-80's when I took a call from a state trooper saying he
was detaining a van load of illegal Mexican aliens at roadside. He requested I contact INS at Kansas City for
instructions on their disposal. The reply from INS: "Turn them loose". Which is exactly what we did.

Dick

3927. Re: Radiation 101 (please)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 05:17:52 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <%jBH9.6067$2S1.943506@news20.bellglobal.com>
Source record: 129966

> Try the acceleration of charge as a cause of radiation.

Exactly. Acceleration of charges. Physics 101. Been there, done that (and more). I agree with all that. (Did anyone think that I didn't ??? Geesh...)

Now compare and contrast the conventional view (acceleration of charges) with Reg's description. (This is the point where I jumped in and started asking questions.)

"Reg Edwards"
> Energy becomes detached from the near-field with
> increasing distance from the antenna because the
> near-field doesn't have sufficient time to fully
> collapse back upon itself during the radio-frequency
> cycle. The field velocity is restricted to that of light.
> The energy detached gets lost in space and changes
> its name to Far Field.

A perfectly fair extract of the above is: "(EM radiation occurs) because the near-field doesn't have sufficient time to fully collapse..."

I'm confident that Reg knows his stuff (that's obvious in the long run), but I still don't like this description (above) of the cause of EM radiation. His description implies (heavily) that it depends upon ("because" of) a field collapse mechanism.

Appeal to basic symmetry (gut reaction to only including field collapse, but not expansion) indicates that the description probably isn't correct.

A quick gedanken (with a solenoid and a battery) proves it.

Oh well. Whatever... sigh...

3928. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 05:34:08 UTC
From: Wes Stewart <n7ws@nowhere.com>
Message-ID: <ssotuukndiaccl64go0d9nr4ofcnklocjs@4ax.com>
Source record: 129967
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Thu, 5 Dec 2002 01:15:45 -0000, "Brian Reay"
<brian.reay@bigfoot.com> wrote:

| "Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
|news:asm736$ti3$1@slb9.atl.mindspring.net...
| >
|> Take care Brian, Reg actually knows how SWR meters work, he as an
|excellent
|> program on his site explains the internal circuit and workings of those
|> venerable
|> and mis-named devices and he has a free program on his site that will help
|> you to
|> design your own TLI/VSWR meter. Check it out.
|>
|
|Oh I'm aware of Reg's work.
|
|Problem is that the theory isn't exactly new and I get irked when someone
|rehashes an old idea and just ends up confusing things. Reg used to post in
|one of the uk groups but stopped when his 'new' theories were 'uncovered'.
|
|We have enough problems with people knocking our new licensees (the
|Foundation Licensees, like the old US Novice) the last thing you need is
|someone confusing the technical stuff they are learning!

No fooling. Particularly when that someone is claiming that a 25 ohm
load in a 50 ohm system is reflecting half of the incident power.
(That someone is you by the way...)

"Try a worked example: 10W from the tx to a line with 3dB loss to a 25
ohm load (all in a 50 ohm system)

Forward line loss is 5W, 2.5W goes 'into' load, and 2.5W is
reflected."

Tsk tsk. Now tell Reg you're sorry.

3929. Re: a shortened BEAM ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 07:32:39 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0212042332.3540d911@posting.google.com>
Source record: 129968

"Torbj rn Morka" <lc3rbt@online.no> wrote in message
news:<u0vH9.5481$hV6.94333@news2.e.nsc.no>...
> In use for the 17-m band, i would like to make a shortened beam-antenna, i.e
> reduce length of elements, and compensate with coils.
> Is there formulas for such ??
>
> Thanks,
> T.

Hi,
try ON4UN's "Low Band DXing", I think there is a chapter about
shortened beams (mainly for 40 and 80 m bands).

BR from Ivan

3930. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 09:34:07 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212050134.4a46f06@posting.google.com>
Source record: 129869
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"Brian Reay" <brian.reay@bigfoot.com> wrote in message
news:<asm5fp$t2tg6$1@ID-140397.news.dfncis.de>...
> "Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
> news:asm4pn$ip9$1@slb3.atl.mindspring.net...
> >
> > Yep, a few pints of "Directors" and a big plate of "bangers and mash" at
> the
> > local pub.
> >
> You have sadly missed out on good beer if you remember "Directors" - yuk.
>
> You need to head north, to the land of the Geordie, and try Newcastle
> Exhibition and Newcastle Brown Ale.
>
> > I wish I was in Merry Olde England again for the Holidays. Maybe next
> year.
> >
>
> Well I hope you have a good Xmas where ever you find yourself.
>
> I'm sorry we sent Ann Robinson and 'Bass' over there, nothing to do with me,
> but I heard it was revenge for not inviting us to the Boston Tea Party ;-)

The best imported english beer that I have drank in Texas, was
Whitbread. Funny name, but pretty tasty beer.. Yep, Bass is pretty
ho-hum...I don't drink much anymore really. I used to like heineken
dark until they changed the recipe and pretty much ruined it. I guess
that was like 15?? years ago or so when they did that...Most american
lager beer tastes like chemical backwash, although many of the new
small U.S. "microbreweries" are catching up to EU standards pretty
fast. MK

3931. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 10:31:08 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <asn9r6$tdabm$1@ID-140397.news.dfncis.de>
Source record: 129870
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"Wes Stewart" <n7ws@nowhere.com> wrote in message
news:ssotuukndiaccl64go0d9nr4ofcnklocjs@4ax.com...
>
> No fooling. Particularly when that someone is claiming that a 25 ohm
> load in a 50 ohm system is reflecting half of the incident power.
> (That someone is you by the way...)
>
Don't you have reactance in the US?

I thought it was the land of plenty.

Can you selectively get rid of it so easily or is it all or nothing?

;-)

73

Brian

3932. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 10:42:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uuubd3rkcboo5d@corp.supernews.com>
Source record: 129871

Gary Schafer wrote:
> Hi Roy,
>
> I guess I am one of those guilty ones in regards to skin depth
> definition.
>
> What would the current distribution look like in material that was
> just one skin depth thick?
>
> Thanks
> Gary K4FMX

I don't know the answer to that one right off. I have quite a good selection of references and texts, but they invariably make the assumption that the thickness of the material is at least several skin depths. I think it ends up being pretty academic -- in practice I think conductors of about one skin depth thick are regarded as being essentially transparent. This would be the case for a lot of conductors around the audio range. At RF, the assumption that all conductors are many skin depths thick is generally a good one. And in between, the interest is mostly in round conductors rather than flat material. The answer to your question can be calculated, although, like I said earlier, not on a pocket calculator -- it has to be done numerically. I haven't taken the time to write a program to do it, and a search of my references and the web didn't come up with the answer.

One clue comes from a table published by the NBS (now NIST) in 1912, for round conductors. According to the table, a round conductor with radius of one skin depth has an RF resistance that's 1.02 times the DC resistance. This says that the current density is essentially constant in the material. At two skin depths radius, the ratio of RF to DC resistance is 1.26. Interestingly, neither of these is very far off what you'd calculate if you assumed a constant density down to one skin depth, then zero density below that. This calculation gives 1.00 and 1.33 for one and two skin depths radius respectively, and is exactly correct if the material is infinitely thick, so it's interesting that it does so well at one or two skin depths.

So the short answer to your question is that -- I think -- the current is nearly the same on both sides of a conductor which is only one skin depth thick. But I haven't done the calculation to confirm this.

Roy Lewallen, W7EL

3933. Re: Disruptive Technologies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 11:36:44 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asndo4$s4v$1@slb6.atl.mindspring.net>
Source record: 129872

Chip:

Prof. Christensen and Prof. Porter will have to sort that out between themselves in the faculty
lounge at HBS, since it was first mentioned in Michael Porter's 1985 book, but the dedication
in Professor Porter's book is to one C .Roland Christensen.
--
Michael E. Porter, "Competitive Advantage: Creating and Sustaining Superior Performance",
The Free Press, New York, 1985 [cfr: Chapter 5, pp. 164-197]
--

Hmmm... your wife an HBS graduate, well now this NG is really starting to look up, first yourself,
and now another Ivy Leaguer joins us here on this "rough and tumble" newsgroup. And a feminine
participant to boot. Her active participation can only represent an improvement over your own
testosterone charged out of control technology jock postings!

I, for one believe that we really need some feminine input here on this NG to moderate all the testosterone
flowing from the postings of the myriad technology jocks who keep piling *it* higher and higher.

In fact I would recommend that you introduce your dear wife to us all here and let her do all your posting
from now on.

I for one would welcome her with open arms, and I would ask that the other denziens of this NG be gentle
with her. Of course I cannot vouch for or control the behavior of any other than myself, and as you well
know, I am always the perfect gentleman. If your dear HBS wife can be persuaded to participate, that way
you can retire from the NG and take a rest from all of the harrasment and pursue your scientific ideals.

But...before we accept her postings without questions, we all have to know... what was her HBS GPA
and especially her grade on Prof. C's class?

Unfortunately, we were too poor, and I never got to attend an Ivy League school, I attended a one room
schoolhouse in Essex County, ON... the same one who graduated John Kenneth

Galbraith, and I had to
learn all this business stuff on my own, but then you'r "Paul Drake" has
probably already found out all of that.

BTW... re your dear wife. I'll bet she is not as "disruptive" as you!

What's her "handle"?

Call sign?

Happy Holidays,

--
Peter K1PO
Indialantic By-the-Sea, FL

"Fractenna" <fractenna@aol.com> wrote in message
news:20021204211533.21094.00008631@mb-fx.aol.com...
> Hi P.O!
>
> I asked the XYL if she had the HBR issue with the first discussion of
> 'disruptive technologies'. Of course, she had it: its in a 1995 ish.
Author Joe
> Bower and Clay Christiansen.
>
> 73,
> Chip N1IR
>
>

3934. Re: Q: Is 100mW at 802.11b safe????

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 12:43:29 UTC
From: jeff <penn@name.com>
Message-ID: <RRHH9.47150$kO5.5201120@news1.news.adelphia.net>
Source record: 129873

"Dave Platt" <dplatt@radagast.org> wrote in message
news:uutjdlsvabope5@corp.supernews.com...
> >Hi everyone,
> >
> >I don't know much about antenna, but I just learned how to increase the
> >power output of my home network wireless access point from 30mW to
100mW.
>
> Software patch to the A/P's firmware?

It was easy. It appears that the radio a Linksys WAP11 is built to accept
the power increase, but Linksys "hides" the control to do so from you. There
is a good article on it here:
http://www.seattlewireless.net/index.cgi/Wap11Hack

>
> >The hack works great, and now my access point does to. A very noticeable
> >performance increase.
>
> Tripling the power would give you about an 80% increase in range
> (assuming a fairly simplistic model on how the signal is propagating).

It certainly shows!

>
> Most of the inexpensive consumer-grade cards and access points seem to
> be rated for about 15 dBm of power (30 milliwatts)... the
> Cisco/Aironet models can be cranked up to 20 dBm (100 mW) as a
> supported feature.

That's what this was. I wonder it Linksys intended to use the same hardware
in a more expensive unit at some point.
My card is still a limiter, at 30 mW.

>
> >I'm wondering how concerned I should be with a device in the corner of my
> >living room outputting 100mW 24 hrs a day. I think I remember reading
that
> >RF danger is not only power, but the frequency.
>
> Proximity is a big issue, also, and also duty cycle.
>
> The FCC regulations which cover 802.11b operation allow a "point to
> multipoint" device such as an A/P or PCMCIA card to transmit at power
> levels of up to 4 watts effective radiated power (isotropic). Since
> most such devices have antennas with a few dB of directional gain, a

> more usual (equivalent) standard is 1 watt of power delivered into a 6
> dBi antenna.
>
> Even hopped up as it is, your access point is transmitting only a
> tenth of the legally-permitted power, and you're probably sitting at a
> good distance from it.
>
> It's worth remembering that the transmit duty cycle of an 802.11b
> access point is generally pretty low. When not in active use, it's
> sending out a short "beacon" packet 10 times per second, and is idle
> the rest of the time... the duty cycle isn't over a few percent, which
> means that the average power is only a few milliwatts.
>
> You're likely receiving as much, or more RF exposure on a day-to-day
> basis from the 802.11b card in your laptop (or whatever) - even though
> you use it for relatively brief periods, you're a lot closer to it.
>
> A 2.4GHz wireless camera/video-sender product probably transmits a
> similar amount of power (15 dBm or so), but with a duty cycle of 100%.
> If you've got one of these in your house you're already exceeding the
> 802.11b RF levels by quite a bit.
>
> Microwave ovens also operate in this band (most commonly) and their
> shielding is far from perfect... 802.11b LANs and video senders tend
> to suffer from significant interference whenever a microwave oven is
> turned on. If you use a microwave regularly, this could quite well
> expose you to more total energy in the 2.4GHz ISM band than your
> access point does.
>
> So, my guess is that you probably haven't increased your RF exposure
> level enough to matter.
>
> You probably _have_ increased your _legal_ exposure by a very small
> amount, in that your mod to the AP has probably voided its Part 97 FCC
> certification.
>
> If you end up causing interference with other users of the 2.4 GHz ISM
> band (which would include licensed amateur radio operators working the
> 13 cm ham band), it'd be your legal responsibility to shut down,
> un-hack the A/P, rearrange your antenna, install tin-foil drapes, or
> do whatever else was necessary to eliminate the interference.
>
> It seems very unlikely to me, though, that anyone would ever make an
> issue of this.
>
> Please do make sure that you've enabled proper security on your access
> point (WEP, MAC-address restrictions, "stealthing" of the network ID,
> etc.), so that you don't find neighbors, drive-by spammers, etc.
> making use of your Internet connection and your home LAN without your
> knowledge and approval.

>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

Good information! Thanks Dave..

3935. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 12:44:50 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <uuuiibt3459o59@corp.supernews.com>
Source record: 129874
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

> "Try a worked example: 10W from the tx to a line with 3dB loss to a
25
> ohm load (all in a 50 ohm system)
>
Try a worked example: 10W from the tx to a line with 0dB loss to a 25
ohm load (all in a 50 ohm system).

5W gets reflected.

3936. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 12:45:38 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <QTHH9.7903$3J2.1203878@news20.bellglobal.com>
Source record: 129875

"Roy Lewallen"
> Interestingly, neither of these is very far off what
> you'd calculate if you assumed a constant density
> down to one skin depth, then zero density below
> that.

That's the 2nd time that you have mentioned that.
The 1st time was:

> An interesting and fortuitous mathematical oddity
> is that the effective resistance of a conductor many
> skin depths thick happens to be exactly the same
> as if the current density were constant with depth
> and equal to the surface density, but abruptly
> stopped at one skin depth.

That 'interesting and fortuitous mathematical oddity' is simply due to the definition of skin depth as being the point where the current falls to weird number 36.7879441...% (= 1/e); instead of a nice round number like 50%. That is all closely related to the very reason that they (Napier and Euler) discovered 'e'. In other words, the 'oddity' is actually tied into the basic meaning of 'e'.

Roy, I'll bet you knew that already. But I thought it was worth mentioning explicitly - for the benefit of lurkers.

3937. Re: Q: Is 100mW at 802.11b safe????

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 12:48:42 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <IWHH9.7921$3J2.1204566@news20.bellglobal.com>
Source record: 129876

> I just learned how to increase the
> power output of my home network
> wireless access point from 30mW to
> 100mW.

And so the power race begins... I wonder if the protocol will accept the delays inherent in 'Moon Bounce' ? Who will be first ?

:-)

3938. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 14:00:08 UTC
From: richardharrison@webtv.net
Message-ID: <12359-3DEF69F8-18@storefull-2316.public.lawson.webtv.net>
Source record: 129884

Gary Schafer wrote:
"What would the current distribution look like in a material that was just one skin depth thick?"

A conductor carrying current is surrounded by an electromagnetic field distributed along its length. The conductor may be considered a guide for the field.

Consider a point along the conductor. There is some slowing of the wave in the conductor giving the electric field lines a forward tilt. In other words, these lines are not exactly perpendicular to the surface of the conductor. The conductor is a drag on the wave.

Magnetic lines are parallel to the surface of the conductor. They are also perpendicular to the electric field lines. The propagation direction is perpendicular for practical purposes to the wave consisting of electric and magnetic lines which are perpendicular to each other.

The voltage difference in the direction of wave travel is greater than that perpendicular to the conductor, which is being absorbed into the conductor.

The wave velocity slows as it sinks into the conductor where it encounters increasing opposition. Lenz says self inductance opposes current produced by the varying field. Ohm says resistance dissipates some of this same current.

Progressive retardation as the current sinks deeper into the conductor slows the current causing its phase to progressively lag behind the current at the surface. At some depth the phase lags the phase at the surface by 180-degrees, given sufficient material thickness. This means the current will reverse directions creating eddy currents.

A summation of current density throughout the conductor equals the current an ammeter would display if this could be done.

Current density decreases exponentially deeper below the surface. The depth at which current is decreased 1 neper is the skin depth, 1/e, 0.368, 8.686 db, or pick your own equivalent. I like 38.6% of the current density at the surface. That`s Terman`s characterization, so it`s good enough for me. This depth is the effective skin thickness. As Roy says, this assumes sufficient conductor thickness.
If you had a fat wire wih uniform current throughout its depth equal to the surface current down a depth equal to the skin depth, a hypothetical situation only, the power loss would be the same as the actual loss in the conductor. This is a convenience for calculations .

I`ve already given skin depth formulas and a table of depth versus frequency for copper in this thread. At low frequencies and normal wire sizes significant current flows in the middle of the wire. At r-f nearly all the current is at the surface.

A No. 36 AWG copper wire has a diameter of 0.005 inch. Pretty fine! Its radius is half that. Skin depth in copper at 1 MHz is 0.00260 or about equal to the radius of a No. 36 wire.

Since we usually employ conductors larger than a No. 36 wire, skin effect in copper is usually said to be complete for r-f.

Best regards, Richard Harrison, KB5WZI

3939. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 14:26:17 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <asnnk4$sg9cn$1@ID-140397.news.dfncis.de>
Source record: 129877
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"Wes Stewart" <n7ws@nowhere.com> wrote in message
news:ssotuukndiaccl64go0d9nr4ofcnklocjs@4ax.com...
> "Try a worked example: 10W from the tx to a line with 3dB loss to a 25
> ohm load (all in a 50 ohm system)
>
> Forward line loss is 5W, 2.5W goes 'into' load, and 2.5W is
> reflected."
>

Let me run it past you again- it wasn't 110% clear:

10W into line.
5W lost in line (lost =converted to heat)
of the OTHER 5 W (that gets to the load), 2.5 goes 'into' load, and 2.5W
is reflected.

Of that reflected 2.5W, 1.25 is lost and 1.25W will get back to tx output.
Now, do you know what happens next?

Incidentally, the SWR meter at the tx end would read about 1.1 due to the
line losses. Which is why you need to use the SWR meter with caution.

The example was chosen to illustrate that the power CAN 'go' elsewhere than
the load- in this case mostly into heating the coax.- not to justify the use
of the SWR meter.

73

Brian

3940. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 14:30:26 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <asnnrs$t3bma$1@ID-140397.news.dfncis.de>
Source record: 129878
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:asm68j$f3j$1@slb0.atl.mindspring.net...
> Brian:
>
> Hey we like Anne she's kinda cute!
>
I'm told there are websites for people who think like that but you need an
Adult Check and bad taste ;-) to visit them.

We have Anne Widdecombe as well- again are websites I am sure.

How about my mother-in-law as well?

73

Brian

3941. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 14:36:20 UTC
From: Earth Wolf <"Earth Wolf"@telusplanet.net>
Message-ID: <3DEF647B.2050500@telusplanet.net>
Source record: 129879

Ad hominem attacks such as this are usually a clear indication of a
pseudo-scientist or crackpot at work.

Who or what Peter works for is irrelevant to the strength/weakness of
his arguments, and equally irrelevant to the strength/weakness of yours.

Fractenna wrote:

>
>I think that was far more than I expected you to admit. Of course there are
>many more details, and one might speculate that some of your clients have been
>very, very interested in what you are alleging is a "scientific scam"-- to
>quote you.
>
>Just because they have not made progress may, you know, indicate the wrong
>people for the tasks at hand.I would also be very concerned about delving into
>using other people's IP--but that's just a thought.
>
>I geuss everyone wants an edge these days.
>
>Trying to render an inventor as absurd is not a successful way to acheive that,
>and you may wish to reconsider such a path.
>
>If I were you--and clearly I am not-- I would minimize exposure and maximize
>fact.
>
>Best of luck,
>
>73
>Chip N1IR
>

--
In accordance with a first aspect of the present invention, there is provided a
transportation facilitation device including a circular rim, a bearing in which a hollow
cylindrical member is rotatable about a rod situated within the hollow cylindrical member,
and a series of connecting members connecting the circular rim with the hollow cylindrical
member to maintain the circular rim and the hollow cylindrical member in substantially
fixed relation, wherein the rod is positioned on an axis perpendicular to the plane of the
circular rim, and substantially central of the circular rim.

Abstract from John Keogh's successful 2001 application for an Australian patent
(Innovation Patent #2001100012) for the "Circular transportation facilitation device" aka
"wheel".

3942. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 14:43:54 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <asnol4$t29ea$1@ID-140397.news.dfncis.de>
Source record: 129880
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0212050134.4a46f06@posting.google.com...
>
> The best imported english beer that I have drank in Texas, was
> Whitbread.

Funny taste in beer you have ;-)

When I last visited Ft Worth I was taken to a very nice country / golf club some miles of town (NE I think). They served Newcastle Brown Ale, but they served it cold. The barman was most insulted when I asked for a less chilled bottle. Even when my host explained that Geordies (as people from that part of England are known) are weaned on it and so knew how it should be drunk, he still thought I was most odd.

>Funny name, but pretty tasty beer.. Yep, Bass is pretty
> ho-hum...I don't drink much anymore really. I used to like heineken
> dark until they changed the recipe and pretty much ruined it.

Well if you like Heineken then you will drink most things ;-)

>I guess
> that was like 15?? years ago or so when they did that...Most american
> lager beer tastes like chemical backwash, although many of the new
> small U.S. "microbreweries" are catching up to EU standards pretty
> fast. MK

I quite like US beer- draught Mic esp. 'Bud' is a bit syrupy for my taste.

It is odd that many people un Europe rave about German and Belgium beer (which I like) but knock US beer and, to me, they are much the same.

Either way, there is more to the US than beer- wonderful country and people I can't wait to visit again.

73

Brian
G8OSN

3943. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 14:45:41 UTC
From: tdonaly@aol.com
Message-ID: <20021205094541.28311.00000256@mb-ca.aol.com>
Source record: 129881

>
>Mark Keith wrote:
>
>tdonaly@aol.com (Tdonaly) wrote in message
>> I guess in a place like Texas a man needs a gun in order to make sure he
>> sees his next birthday. It's different in other parts of the U.S. where
>people
>>
>> are more on the civilized side.
>
>
>
>No, there is no real difference at all
>
>
> Sure there's a difference, Mark. In Texas, as in other places with concealed
>carry
>laws, the owlhoots aren't the only ones carrying, and don't think the baddies
>don't
>know it. Or soon find out. As someone said, where anyone is likely to be
>packing heat
>people are *very* polite to each other.
>
> I have a brother who lives in Texas who told me not long ago, as we
>discussed this
>subject, that there was a recent case where a hoodlum showed up in a
>restaurant and
>stuck a gun in the cashier's face, whereupon TWO patrons stood up and
>plugged him.
>Don't think you'll see that on the Left coast. And you'll see it far less
>often in
>Texas in the future, too. They do eventually get the word.
>

Having a gun didn't help my wife's father who was gunned down in a robbery
in 1968. It also didn't do anything for the armored car guards who were
recently plugged in Oakland. You guys who feel more secure carrying a
piece of iron strapped under your arms or hanging from your hips ought to
realize that, in a shootout, all parties are likely to get ventilated.
73,
Tom Donaly, KA6RUH

3944. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 15:00:26 UTC
From: fractenna@aol.com
Message-ID: <20021205100026.24565.00000406@mb-ch.aol.com>
Source record: 129882

>Who or what Peter works for is irrelevant to the strength/weakness of
>his arguments, and equally irrelevant to the strength/weakness of yours.

I'm not the one to present the 'arguments';-) I just assist in information gathering and keep it civil and factual.

Have a pleasant day.

73,
Chip N1IR

3945. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 15:01:19 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <uuuqi8j9ucuc55@corp.supernews.com>
Source record: 129883
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

> Of that reflected 2.5W, 1.25 is lost and 1.25W will get back to tx
output.
> Now, do you know what happens next?
>
Assuming that the transmitter is properly matched to the load
impedance it is looking into (via a matchbox perhaps), the 1.25W gets
reflected back towards the load. My question is what happens if the
transmitter is not properly matched to the load impedance?

That's why transmission losses increase with SWR, the power is
subjected to the same loss multiple times as it travels up and down
the feedline. With the "typical" HF installation however the feed line
loss is not high enough for the SWR to make any significant difference
in total power transferred to the load. Many people mistakenly think
that 50% reflected power means only half the transmitter power gets
radiated by the load - the result being that we often worry way too
much about SWR.

3946. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 15:40:49 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEF7381.2080307@ieee.org>
Source record: 129885

Tdonaly wrote:
> You guys who feel more secure carrying a
> piece of iron strapped under your arms or hanging from your hips ought to
> realize that, in a shootout, all parties are likely to get ventilated.

And us guys want all the potential perps to know and remember that fact.
Some of us guys would rather die with our boots on than from cancer in
a nursing home.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3947. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 15:41:43 UTC
From: arrow146@aol.com
Message-ID: <20021205104143.16614.00000104@mb-co.aol.com>
Source record: 129886

<< As someone said, where anyone is likely to be packing heat
people are *very* polite to each other. >>

If the Law required every Vehicle to contain a loaded firearm, would people
drive different ?

73 Al Lowe N0IMW

3948. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 15:58:22 UTC
From: richardharrison@webtv.net
Message-ID: <3677-3DEF779E-149@storefull-2315.public.lawson.webtv.net>
Source record: 129887

I wrote 38.6%. OOPS, that should have been 36.8% to agree with the
0.368.
Sorry, I fat-finger the keys occasionally.

Best regards, Richard Harrison, KB5WZI

3949. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 16:16:10 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <j8suuu0867kmrvk47rkr4t4uns42iop1o9@4ax.com>
Source record: 129888
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Thu, 5 Dec 2002 10:31:08 -0000, "Brian Reay"
<brian.reay@bigfoot.com> wrote:

| "Wes Stewart" <n7ws@nowhere.com> wrote in message
|news:ssotuukndiaccl64go0d9nr4ofcnklocjs@4ax.com...
| >
|> No fooling. Particularly when that someone is claiming that a 25 ohm
|> load in a 50 ohm system is reflecting half of the incident power.
|> (That someone is you by the way...)
|>
|Don't you have reactance in the US?

Yes, but where is it in the example you pose?

You said:

|(Quote) Try a worked example: 10W from the tx to a line with
|3dB loss to a 25 ohm load (all in a 50 ohm system)

|Forward line loss is 5W, 2.5W goes 'into' load, and 2.5W is
|reflected. Of the 2.5W reflected 1.25W is lost in the line
|on the return journey. (End quote)

I don't see any mention of reactive loads in your proposition.

Let's forget the line loss for the moment and deal with the 5W you
claim are incident on the load:

A 25 ohm load in a 50 ohm system has a vswr of 2:1, reflection
coefficient of 0.333, or return loss of 9.5 dB.

This latter number says that only 11% (.55 W) of the incident power is
reflected, not the 50% (2.5W) that you claim.
|
|I thought it was the land of plenty.

It is, and plenty of people are trying to sneak in illegally to
partake of the goodies. Most of brown-skinned ones in my area are
partial to Bud Lite which is one more reason to round them up and send
them home.
|
|Can you selectively get rid of it so easily or is it all or nothing?

I've found that inserting a reactance of equal magnitude but opposite
sign gets rid of it every time. <g>

3950. Re: Antenna switch

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 16:19:43 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92DB6A2DF795Dmichalkunyahoocom@128.233.3.7>
Source record: 129889

If you are talking about the normal manual switches for antennas, they are really expensive. I'm talking about one that is connected to computers com or lpt port. Then It's possible to use a plugin to control which antenna is on or off.

'Doc <w5lz@cwis.net> wrote in news:3DEE89D9.D5DF88EC@cwis.net:

>
>
> Michalkun,
> If it uses a common connector (9 pin?), you
> might find a switch used for periferals in one
> of the electronic catalogs. Haven't seen one
> in a while, but they used to be sort of common.
> 'Doc
>

3951. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 16:37:32 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212050837.2b24d16b@posting.google.com>
Source record: 129890

Dick Carroll <dixie@townsqr.com> wrote in message news:<3DEEEEAB.19DDF1C7@townsqr.com>...
> Wes Stewart wrote:
>
> > On 4 Dec 2002 14:48:36 -0800, nm5k@wt.net (Mark Keith) wrote:
> >
> > |aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message Everybody knows that illegals are not deported now
> > |> or even reported by the police so certainly none of the 'illegals' are
> > |> down trodden today.
> > |
> > |Not the case here. INS does sweeps of likely hangout places regularly here.
> > |IE: labor force pickup spots, etc. If they get caught, they go back to Mexico.
snip>
> > This country is nutty as a fractal antenna.
>
> None of this is new stuff either. I recall from the mid-80's when I took a call from a state trooper saying he
> was detaining a van load of illegal Mexican aliens at roadside. He requested I contact INS at Kansas City for
> instructions on their disposal. The reply from INS: "Turn them loose". Which is exactly what we did.
>
> Dick

On the other side of the coin the U.S. has been extremely lucky. The
ever increasong group of Islam followers in the U.S. have not formed
cells to combat
the assaults by Jews and Christians, even tho we force all to pay
taxes for use against Islam. In Illinois the State have just changed
tax dispersement rules so it can borrow a few million to send out for
the fight against Islam and for a Greater Israel Yet we have not had
the religeous ethnic clashes that occur elsewhere and in general they
appear to be good citizens despite the growing number of attacks. On
the other hand we are seeing mounting violence by those that come from
Christian countries !
So as was the question earlier......Is this Country nutty or what ?
Since the World knows where missiles are made is it unthinkable that
we will eventually see them in use here by visitors?
I suppose this can be classed as whining if we cry when it happens at
home.
Art

3952. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 17:06:31 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <aso10i$t31v3$1@ID-140397.news.dfncis.de>
Source record: 129891
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"Wes Stewart" <n7ws@#arrl.net> wrote in message
news:j8suuu0867kmrvk47rkr4t4uns42iop1o9@4ax.com...
>
> Let's forget the line loss for the moment and deal with the 5W you
> claim are incident on the load:
>

The line loss was the bit I was trying to demostrate- maybe if you check the
thread.

> |I thought it was the land of plenty.
>
> It is, and plenty of people are trying to sneak in illegally to
> partake of the goodies. Most of brown-skinned ones in my area are
> partial to Bud Lite which is one more reason to round them up and send
> them home.
> |

I don't much care what the colour of someone's skin is but drinking Bud lite
IS too much. I think you are way too generous. Hang em high.

> |Can you selectively get rid of it so easily or is it all or nothing?
>
> I've found that inserting a reactance of equal magnitude but opposite
> sign gets rid of it every time. <g>
>

Glad to see that still works in the former colonies- I was worried you may
have changed it ;-)

73

Brian

3953. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 17:42:32 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <hv3vuu0q65lmb8igit9f6a4canivfjm3f8@4ax.com>
Source record: 129892

On 05 Dec 2002 15:41:43 GMT, arrow146@aol.com (Arrow146) wrote:

><< As someone said, where anyone is likely to be packing heat
>people are *very* polite to each other. >>
>
>
>If the Law required every Vehicle to contain a loaded firearm, would people
>drive different ?
>
>73 Al Lowe N0IMW

Hi Al,

With one hand already holding a cell phone, it would seem they would
have to learn to drive with their knees - otherwise they are losers in
the game.

Watch Steve Martin's "L.A. Story."

73's
Richard Clark, KB7QHC

3954. Re: Antenna switch

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 18:15:56 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <AZfvPWuqWAF8S1IwIiQwXXaAw9H1@4ax.com>
Source record: 129894

Michalkun <no.spam@nospam.com> wrote:

>If you are talking about the normal manual switches for antennas, they are
>really expensive. I'm talking about one that is connected to computers com
>or lpt port. Then It's possible to use a plugin to control which antenna
>is on or off.

In the past, I've purchased so-called "printer-switches" used to switch between two or more printers on the lpt port. Check with your neighborhood computer-house -- they should have something in stock, or be able to order you something. I recall paying about $50 for such a switch, back in the late '80s.

Bob
k5qwg

>
>
>'Doc <w5lz@cwis.net> wrote in news:3DEE89D9.D5DF88EC@cwis.net:
>
>>
>>
>> Michalkun,
>> If it uses a common connector (9 pin?), you
>> might find a switch used for periferals in one
>> of the electronic catalogs. Haven't seen one
>> in a while, but they used to be sort of common.
>> 'Doc
>>

3955. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 18:18:52 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <b54vuusrl980t2vk2m36coe3gvnvnp2p7j@4ax.com>
Source record: 129893

On 05 Dec 2002 14:45:41 GMT, tdonaly@aol.com (Tdonaly) wrote:

> in a shootout, all parties are likely to get ventilated.
>73,
>Tom Donaly, KA6RUH

All Hail Bush!

It should also be pointed out, it is usually the first one to pull the trigger that wins. I am sure the loser is glad to see (from on high) the prize is a ride on Sparky for five minutes. Given the high degree of arming in Texas, and the equally high degree of sending folks to the chamber; that argues an airtight case for the warm snuggly feeling of security. If you feel a little chill, we will light up another convict and things will be OK again.

It will no doubt grieve the sniper-huggers that
"Federal agents yesterday raided the Tacoma gun store that was the last legal stop for a rifle later used in a multistate crime spree linked to East Coast sniper suspect John Allen Muhammad.
...
"and sold 'off the books.'"
...
"There appears to be a large number of guns sold off the books..."

Duh, with 300 guns a year average going out the back door to satisfied customers, why would a criminal want to steal one? When the owner reports these missing items each year, does someone have to shoot a dozen people in Washington D.C. to make a connection for the Feds? Does Arthur Anderson do the books for the Feds' reporting system?

There's value for your tax dollar. The Right Whiner solution will be cut the tax, eliminate reporting, and start a sniper-welfare system so that they can draw their constitutionally protected weapon of choice from federal armories. That worked like a charm for years in Bosnia and Yugoslavia until Clinton stuck his nose into that. Now they can only glower at each other and vote - what a waste. Where's my nuke?

[I am sure Tom can recognize an Ironic style, some others might be uncharacteristically enthused to elect me president of the NRA - I would like to point them towards the president's reading program so that they could discover the errors of their ways.]

death to the terrorist scum and those who arm them,
Richard Clark, KB7QHC

3956. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 18:25:32 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DEF9A1C.4060401@ieee.org>
Source record: 129895
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Wes Stewart wrote:
> A 25 ohm load in a 50 ohm system has a vswr of 2:1, reflection
> coefficient of 0.333, or return loss of 9.5 dB.

25 ohms at 65 degrees would just about do it. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3957. Re: Help with AM Radio Reception

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 18:31:05 UTC
From: Bill <bill4106@hotmail.NOSPAM.com>
Message-ID: <aso61a08re@enews1.newsguy.com>
Source record: 129896

I live next door to the ANF here and don;t seem to have trouble as you
mention - car radio is quite productive.. my realistic copy of the GE
superradio is quite efficient, and my hf Ham rigs do quite
well..... what are you using for a reciever????????????

de N3DDY
443.90+ and 146.76-
next to the ANF

"Dick Carroll" <dixie@townsqr.com> wrote in message
news:3DED8471.50051213@townsqr.com...
>
>
> l wrote:
>
> > I live in north central PA (Allegheny National Forest area). I have
> > no electricity. I get liitle radio reception. I am interested in
> > suggestions for improving AM radio receptions for stations in New York
> > City, Philadelphia, Pittsburg and Buffalo.
> >
> > I am requesting help on the type of radio and antenna required to get
> > reception from these cities.
> >
> > thanks
>
> You have no electricity, no nuttin', but you DO have an internet
> connection.
> Hmmmmmmm......
>

3958. Re: Antenna switch

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 19:06:41 UTC
From: Jan SP2FWC <sp2fwc@kki.net.pl>
Message-ID: <aspkb1sf1@news.tpi.pl>
Source record: 129854

sp3key@wp.pl
uri2000

U&#65533;ytkownik "Michalkun" <no.spam@nospam.com> napisa&#65533; w wiadomo&#65533;ci
news:Xns92DA67A18BEAmichalkunyahoocom@128.233.3.7...
> Does anyone know or made an antenna switch that could be used by the
> winradio plugin? It's controlled by a com or lpt ports.

3959. Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 19:33:46 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <uuvagtc3phr2f1@corp.supernews.com>
Source record: 129897

If my assumptions are correct a reflected wave is partially dissipated by coax loss and partially radiated by the antenna (and other ohmic losses(OML)) and whatever isn't radiated returns to the tx less coax loss and OML to be reflected again and so on. Now assume we slow things down, instead of 14 mHz we have a cycle per minute and make the transmission line very long. At the receiving end I will detect the first cycle followed and I wonder if some time later I will detect the radiation of the reflected wave. If my explanation is not clear, I apologize and suggest that this might be similar to a ghost TV signal or receiving signals that take two paths. If this is the case what kind of instrument would be required to measure the time and amplitude difference and could you from this determine that senders mismatch remotely? Or have I smoke and inhaled?
tnx
hank wd5jfr

3960. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 20:07:18 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uuvcfil255jkba@corp.supernews.com>
Source record: 129898

Richard Harrison wrote:
>
> Consider a point along the conductor. There is some slowing of the wave
> in the conductor giving the electric field lines a forward tilt. In
> other words, these lines are not exactly perpendicular to the surface of
> the conductor. The conductor is a drag on the wave.
> . . .

The velocity factor in copper is about 1.385 X 10^-6. That is, the wave in copper travels at about 1/700,000 the speed that it does in air. That's "some slowing" indeed!

Roy Lewallen, W7EL

3961. ARRL antenna book editions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 20:23:06 UTC
From: jkm93ska@temp.seanh.net
Message-ID: <f49c48db.0212051223.49c5d1c4@posting.google.com>
Source record: 129899

I'm looking to pick up the ARRL Antenna Book to learn more about how antennas work and possibly do some simple homemade antenna projects. My first project would probably be an 800MHz antenna for a scanner, but I have an interest in learning about all kinds of antennas (so I'm not looking just for instructions on how to do that specific project).

How much does it matter which edition of the book I get? The 19th ed. goes for $24-30 new, and I have seen older editions for under $10. The basic science doesn't seem to likely to change from edition to edition. So what is the real difference? I'm willing to pay for the newest edition if there's a good reason to do so; I just want to be sure I'm not throwing money away.

Thanks.

sean

3962. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 20:27:20 UTC
From: richardharrison@webtv.net
Message-ID: <12357-3DEFB6A8-172@storefull-2316.public.lawson.webtv.net>
Source record: 129901

I wrote:
"This is a convience for calculations."

My explanation of the equivalent tube of current was awkward. I should have said: A solid rod could be replaced, for electrical calculations only, by a tube of one skin depth thickness which is assumed to have constant current density throughout its thickness equal to that of the current density at the surface of the rod.

Best regards, Richard Harrison, KB5WZI

3963. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 20:32:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uuvdu3fe222243@corp.supernews.com>
Source record: 129900

Yes, thank you, I did know that, but it's always good to have more information presented.

For those who are curious about the derivation of this relationship, it goes like this:

For an infinitely thick conductor (or, in practical terms, one that's at least several skin depths thick), the current density at any depth x = Js * e^(-x/delta) where

Js = the surface current density
x = the depth (distance from the surface)
delta = the skin depth

So the total current I = integral for delta = 0 to infinity of (Js * e^(-x/delta) dx).

The value of this integral is simply Js * delta, for the reasons J. points out. So the total current turns out to be simply the surface current density times the skin depth. This is why we can use a uniform current density down to the skin depth and abruptly stopping, and get the correct answer for the total current (or resistance) even though the density actually decays exponentially from the surface.

I might even mention the simplified calculation again from time to time -- anyone bored by it can ignore it. The reason I mention it often is that people who aren't too sure about what's going on might see the simplified calculation being done and incorrectly infer that the current distribution is really uniform to a skin depth. Which of course it's not.

Roy Lewallen, W7EL

J. Harvey wrote:
> "Roy Lewallen"
>
>>Interestingly, neither of these is very far off what
>>you'd calculate if you assumed a constant density
>>down to one skin depth, then zero density below
>>that.
>
>
> That's the 2nd time that you have mentioned that.
> The 1st time was:
>
>
>>An interesting and fortuitous mathematical oddity
>>is that the effective resistance of a conductor many

>>skin depths thick happens to be exactly the same
>>as if the current density were constant with depth
>>and equal to the surface density, but abruptly
>>stopped at one skin depth.
>
>
> That 'interesting and fortuitous mathematical oddity' is simply due to the
> definition of skin depth as being the point where the current falls to weird
> number 36.7879441...% (= 1/e); instead of a nice round number like 50%.
> That is all closely related to the very reason that they (Napier and Euler)
> discovered 'e'. In other words, the 'oddity' is actually tied into the
> basic meaning of 'e'.
>
> Roy, I'll bet you knew that already. But I thought it was worth mentioning
> explicitly - for the benefit of lurkers.
>
>
>

3964. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 20:50:58 UTC
From: Sylvan Butler <Znospam+noZs_0212@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrnauvf1i.kse.Znospam+noZs_0212@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 129906

On Thu, 05 Dec 2002 01:37:42 GMT, Jim Hancock <jim40@ptdprolog.net> wrote:
> 10' ground rod driven 8' to comply. DON'T solder any ground connection!
> This is also a code violation and safety hazard. Any lighting strike
> will melt the solder and you'll lose your ground when you need it most.

Assuming you used solder in place of instead of in addition to a
secure mechanical connection...

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. >>>> change ^ to @ <<<< |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Stop Senator Fritz Hollings-S2048, Palladium, and TCPA, NOW!
http://www.freedom-to-tinker.com/archives/cat_fritzs_hit_list.html
Or else like Fritz, fight piracy -- regulate potty chairs!

3965. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 20:54:23 UTC
From: Sylvan Butler <Znospam+noZs_0212@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrnauvf7v.kse.Znospam+noZs_0212@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 129907

On Wed, 4 Dec 2002 20:00:40 -0600 (CST), Richard Harrison <richardharrison@webtv.net>
wrote:
> Search on "Nicopress". Nicopress sleeves are applied with such force
> that moisture is excluded and thermal expansion can`t loosen the grip on
> the metals joined.

Seems improbable. Aluminum heats up, it expands. If not allowed to
expand by the nicopress sleeve, the aluminum will flow. Then when
it cools down it will contract. However it will not "unflow" and so
little by little the amount of aluminum under compression will
diminish and the connection will loosen. How does the nicopress
sleeve prevent this? It seems as hard to prevent as the expansion
of water turning to ice.

sdb

--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. >>>> change ^ to @ <<<< |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Stop Senator Fritz Hollings-S2048, Palladium, and TCPA, NOW!
http://www.freedom-to-tinker.com/archives/cat_fritzs_hit_list.html
Or else like Fritz, fight piracy -- regulate potty chairs!

3966. Re: Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 21:03:52 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <asof0801suq@enews4.newsguy.com>
Source record: 129904

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:uuvagtc3phr2f1@corp.supernews.com...
> If my assumptions are correct a reflected wave is partially dissipated by
> coax loss and partially radiated by the antenna (and other ohmic
> losses(OML)) and whatever isn't radiated returns to the tx less coax loss
> and OML to be reflected again and so on. Now assume we slow things down,
> instead of 14 mHz we have a cycle per minute and make the transmission
line
> very long. At the receiving end I will detect the first cycle followed
and
> I wonder if some time later I will detect the radiation of the reflected
> wave. If my explanation is not clear, I apologize and suggest that this
> might be similar to a ghost TV signal or receiving signals that take two
> paths. If this is the case what kind of instrument would be required to
> measure the time and amplitude difference and could you from this
determine
> that senders mismatch remotely? Or have I smoke and inhaled?
> tnx
> hank wd5jfr
>
>
yes, you could detect this reflection and re-reflection. this shows as a
ghost on a tv signal. on any other signal all you would need is an
oscilloscope or really fast field strength meter. from the ratio of the
amplitudes you could determine the product of the line loss (for a round
trip) and the reflection coefficient. from the time delay/2 you could get
the length of the line if you know the velocity factor.

3967. Re: Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 21:04:11 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <3nfvuuch2jou646c2dkub3ti2u4utqansu@4ax.com>
Source record: 129902

On Thu, 5 Dec 2002 13:33:46 -0600, "Henry Kolesnik"
<wd5jfr@oklahoma.net> wrote:

|If my assumptions are correct a reflected wave is partially dissipated by
|coax loss and partially radiated by the antenna

Wrong already... if it's reflected, it isn't radiated.

|(and other ohmic
|losses(OML)) and whatever isn't radiated returns to the tx less coax loss
|and OML to be reflected again and so on. Now assume we slow things down,
|instead of 14 mHz we have a cycle per minute and make the transmission line
|very long. At the receiving end I will detect the first cycle followed and
|I wonder if some time later I will detect the radiation of the reflected
|wave. If my explanation is not clear, I apologize and suggest that this
|might be similar to a ghost TV signal or receiving signals that take two
|paths. If this is the case what kind of instrument would be required to
|measure the time and amplitude difference and could you from this determine
|that senders mismatch remotely? Or have I smoke and inhaled?
|tnx
|hank wd5jfr
|

3968. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 21:49:12 UTC
From: Bart Rowlett <BHRowlett@raytheon.com>
Message-ID: <3DEFC9D8.4462BB8C@raytheon.com>
Source record: 129905

Hi Gary,

Gary Schafer wrote:

> Hi Roy,
>
> I guess I am one of those guilty ones in regards to skin depth
> definition.
>
> What would the current distribution look like in material that was
> just one skin depth thick?

As always, it depends on the boundary conditions. If the conducting slab is less than several skin depths thick you must simultaneously solve for the fields and currents inside the conductor, on both surfaces, and perhaps in the volume outside the conductor, along with satisfying the proscribed boundary conditions.

Here's a link to Kevin Schmidt's excellent web page describing skin effect. It's well worth reading the text, and carefully studying the animation even if you lack familiarity with the mathematical concepts and the notation used in the presentation. Be advised Kevin uses slightly different notation and units than most commonly used in engineering.

http://fermi.la.asu.edu/w9cf/skin/

3969. Re: ARRL antenna book editions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 22:05:06 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <m4QH9.5919$4j5.2947134@newssvr28.news.prodigy.com>
Source record: 129903

Sean,

I have the 19th edition, and another one that is about 25 years old. There are quite a few differences in my two editions, of course.

I don't think the basic theory content has changed much in recent years, but if you buy a recent used version, make sure you get the software disc that comes with it...there are some nice little applications that will come in handy. They may also be available elsewhere, but I don't know.

--
73,
Larry N8LP
www.telepostinc.com/n8lp.html

"Sean Harding" <jkm93ska@temp.seanh.net> wrote in message
news:f49c48db.0212051223.49c5d1c4@posting.google.com...
> I'm looking to pick up the ARRL Antenna Book to learn more about how
> antennas work and possibly do some simple homemade antenna projects.
> My first project would probably be an 800MHz antenna for a scanner,
> but I have an interest in learning about all kinds of antennas (so I'm
> not looking just for instructions on how to do that specific project).
>
> How much does it matter which edition of the book I get? The 19th ed.
> goes for $24-30 new, and I have seen older editions for under $10. The
> basic science doesn't seem to likely to change from edition to
> edition. So what is the real difference? I'm willing to pay for the
> newest edition if there's a good reason to do so; I just want to be
> sure I'm not throwing money away.
>
> Thanks.
>
> sean

3970. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 22:06:24 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <m9gvuuciuhlhd8q0bdnjdi1rvtdf6r11h3@4ax.com>
Source record: 129908
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Thu, 5 Dec 2002 14:26:17 -0000, "Brian Reay"
<brian.reay@bigfoot.com> wrote:

[snipped the carefully trimmed quote from my message that made it
appear that I stated untruths that were actually Brian's]

|Let me run it past you again- it wasn't 110% clear:

That's for damn sure, you are totally confused.

One more (hopefully the last) time. A 25-ohm load in a 50-ohm system
is a 2:1 VSWR. A 2:1 VSWR equals 9.5 dB return loss or 0.51 dB
mismatch loss. That means the reflected power at the load is 11% of
the incident power. It is *not* 50% of the incident power.

Eighty-nine percent (4.46 W) of the incident power is dissipated in
the load on the first trip. If you want to account for the 25% of the
11% reflected power that makes it back from the generator on the
second trip, be my guest. After all is said and done, 4.6 W is
gobbled up in the load.

|
|10W into line.
|5W lost in line (lost =converted to heat)
|of the OTHER 5 W (that gets to the load), 2.5 goes 'into' load, and 2.5W
|is reflected.

B.S.

|
|Of that reflected 2.5W, 1.25 is lost and 1.25W will get back to tx output.
|Now, do you know what happens next?

I do, but obviously you do not.

|
|Incidentally, the SWR meter at the tx end would read about 1.1 due to the
|line losses. Which is why you need to use the SWR meter with caution.

No, it will read 1.4:1. Which happens to equal 15.5 dB return loss
which is the 9.5 return loss of the load and two times the line
attenuation.

3971. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 22:08:31 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <1gjvuu0r0s8uqa3p98sdu8q0m8uvteod1n@4ax.com>
Source record: 129909
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Thu, 5 Dec 2002 17:06:31 -0000, "Brian Reay"
<brian.reay@bigfoot.com> wrote:

| "Wes Stewart" <n7ws@#arrl.net> wrote in message
|news:j8suuu0867kmrvk47rkr4t4uns42iop1o9@4ax.com...
| >
|> Let's forget the line loss for the moment and deal with the 5W you
|> claim are incident on the load:
|>
|
|The line loss was the bit I was trying to demostrate- maybe if you check the
|thread.

Oh I have. It was you that first introducted the 3 dB line loss.

3972. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 22:10:53 UTC
From: dan <danlx@execpc.com>
Message-ID: <3defce96$0$1421$272ea4a1@news.execpc.com>
Source record: 129910

On 05 Dec 2002 15:00:26 GMT, fractenna@aol.com (Fractenna) wrote:

>>Who or what Peter works for is irrelevant to the strength/weakness of
>>his arguments, and equally irrelevant to the strength/weakness of yours.
>
>I'm not the one to present the 'arguments';-) I just assist in information
>gathering and keep it civil and factual.
>
>Have a pleasant day.
>
>73,
>Chip N1IR
More Mr. Buffoon bullshit!
Dan
N9JBF

I've rambled enough, back to the rocking chair. ZZZZZZZZZ
Remove left x for e-mail reply.

3973. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 22:19:28 UTC
From: Bart Rowlett <BHRowlett@raytheon.com>
Message-ID: <3DEFD0F0.C3055F8F@raytheon.com>
Source record: 129911

Roy Lewallen wrote:

> For an infinitely thick conductor (or, in practical terms, one that's at
> least several skin depths thick), the current density at any depth x =
> Js * e^(-x/delta) where
>
> Js = the surface current density
> x = the depth (distance from the surface)
> delta = the skin depth

The equation given by Roy describes the _magnitude_ of the current density at a depth of x skin depths. The equation is useful for for calculating losses but cannot be used to determine the phase, which reverses every pi skin depths. The complex valued current density for good conductors is proportional to the factor e^(-(j+1) * x/delta), where j^2 = -1.

This expands to: e^(-j * x/delta) * e^(-x/delta). The second product term gives the magnitude of the conduction current density as a function of depth, and the first gives the phase. Notice that the phase rotates by pi radians every skin depth, and the direction of current flow is reverse that at the surface at depths between pi and 2*pi skin depths.

The propagation below the surface is that of a very heavily damped wave (-54.6 dB/wavelength) with a remarkably short wavelength of 2*pi skin depths.

Take a look at Kevin Schmidt's excellent derivation of skin effect in good conductors at:

http://fermi.la.asu.edu/w9cf/skin/

bart
wb6hqk

3974. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 22:31:09 UTC
From: jjp76@yahoo.com
Message-ID: <e795e9e2.0212051431.39b8ab27@posting.google.com>
Source record: 129912

tdonaly@aol.com (Tdonaly) wrote in message
news:<20021202212908.23905.00000147@mb-cv.aol.com>...
> Mark wrote,
> >
> >OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
> >news:<3DEB830A.1030203@ieee.org>...
> >> Roy Lewallen wrote:
> >> > ... your truck
> >> > would be right in place in any of the rural areas (provided it's
> >> > properly tricked out with a populated gun rack and NRA sticker).
> >>
> >> You know, Roy, that's one thing that has changed since I was a boy.
> >> I don't see many populated gun racks anymore. It's just too easy
> >> to steal the guns. I do, however, have an NRA sticker and a bumper
> >> sticker that says, "MY PRESIDENT IS CHARLTON HESTON".
> >>
> >I never was much of the "gun rack" type. I once had a truck with a gun
> >rack, but I kept a huge 3-4 ft long adjustable wrench on it. It got as
> >much attention as most guns, and nearly as deadly if I were to plonk
> >someone over the head with it. If I have guns, I hide them. I like to
> >be sneaky. Gives me that "Clint Eastwood" edge. Kind of like having
> >the sun behind you in a shootout. I rarely have guns unless I'm going
> >out of town to the boonies somewhere. I'm not going to bother getting
> >a permit. I don't need a permit to carry a shotgun. Or a handgun
> >either as long as I'm traveling out of the county.
> >MK
> >
> I guess in a place like Texas a man needs a gun in order to make sure he
> sees his next birthday. It's different in other parts of the U.S. where people
> are more on the civilized side.

Oh please!!! You've been watching too many westerns. I don't know
anyone here who just carries around guns on an everyday basis.

And according to the recent Goverment Guide compiled from FBI data,
the only city in Texas on a list of the 25 most dangerous US cities
was Dallas.

I currently live in Houston. I'm not a native Texan, nor are many of
the other Houstonians. Houston is perhaps the most diverse city in
this part of the country -- people come here from everywhere. I think
it is often forgotten by others that Houston is a large, international
port city just like Los Angeles, Miami, New York, or Seattle. And most
importantly, people here LIKE each other and are respectful of each
other for the most part. When was the last time you heard of race

riots in Houston, or any kind of riots or uprisings for that matter? Outsiders might stereotype Texans as rednecks, but I've actually found Houstonians and many other Texans to be quite civilized compared to many people in other areas of the country.

You might want to get yourself updated some... it's not the 1800's anymore.

3975. Re: Skin effect - a follow up.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 22:43:26 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <4nkvuucv2b46l5v3b9c302k069s5l345su@4ax.com>
Source record: 129913

On Thu, 05 Dec 2002 14:19:28 -0800, Bart Rowlett
<BHRowlett@raytheon.com> wrote:

>
>The propagation below the surface is that of a very heavily damped wave (-54.6
>dB/wavelength) with a remarkably short wavelength of 2*pi skin depths.
>
>Take a look at Kevin Schmidt's excellent derivation of skin effect in good
>conductors at:
>
>http://fermi.la.asu.edu/w9cf/skin/
>
>bart
>wb6hqk

Hi Bart,

In contrast to one assertion made here, this is obviously a matter of science (not to speak of math). One point of confusion appears to be an effort to force a very thin foil of conductor to both act as part of a transmission line (a la coax shield) and to allow free and unfettered radiation THROUGH the foil (like I said, the genesis of this was typically confusing with ambiguities, mixed messages and fuzzy goals).

If we discard that noise as immaterial, then it would be useful for you to perhaps give us an encapsulation of the math that would serve for a conductor, in this form factor (to reduce issues of sidedeness and linked fields) of less than one skin depth. A short answer like the attenuation in dB should suffice. Roy likened it to being transparent, but I find that unsatisfactory because all metals are transparent - to varying degrees correlated to thickness.

The one, obvious, killer to that dyn-o-mite application is that if it is a poor skin depth candidate, it must also be a poor conductor (most of the metalized mylars used to shield require a drain wire to actually carry the burden of current over the length of the shield).

73's
Richard Clark, KB7QHC

3976. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 23:05:44 UTC
From: k1bqt@aol.com
Message-ID: <20021205180544.21030.00009903@mb-fx.aol.com>
Source record: 129914

>With one hand already holding a cell phone, it would seem they would have to learn to drive with their knees...<

Who needs guns? Distracted drivers packing cell phones killed over 2600 Americans last year. Any statiastics on how many of those vile weapons of mass destruction were outfitted with fractal antennas??

Rick K1BQT

3977. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 23:58:59 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <asop60$tl8q6$1@ID-140397.news.dfncis.de>
Source record: 129915
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"Wes Stewart" <n7ws@#arrl.net> wrote in message
news:1gjvuu0r0s8uqa3p98sdu8q0m8uvteod1n@4ax.com...
> On Thu, 5 Dec 2002 17:06:31 -0000, "Brian Reay"
> <brian.reay@bigfoot.com> wrote:
>
> | "Wes Stewart" <n7ws@#arrl.net> wrote in message
> |news:j8suuu0867kmrvk47rkr4t4uns42iop1o9@4ax.com...
> | >
> |> Let's forget the line loss for the moment and deal with the 5W you
> |> claim are incident on the load:
> |>
> |
> |The line loss was the bit I was trying to demostrate- maybe if you check
the
> |thread.
>
> Oh I have. It was you that first introducted the 3 dB line loss.
>

Aghh! Yes, I know. To indicate that the power could be dissipated in other
places than the load- ie in the line. Which is why I didn't what to ignore
it. I usually find that ignoring something you are trying to demonstrate is
an unproductive approach.

I think you are arguing for arguing sake.

73

Brian

3978. Re: Problems With EDZ Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-05 23:59:15 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DEEC16B.51BC9778@townsqr.com>
Source record: 129916

Bill, if you're impatient like me and want to try it before your order arrives you can make a choke balun from several turns of coax (8-10) coiled into a fairly tight bunch near the far end of the coax. Makes a pretty effective RF choke.

Dick

"William M. Bickley" wrote:

> Dick:
>
> I've ordered a W9INN remote balun, and will try to use that in combination
> with a minimum length of coax. Am going to try to get the outboard end of
> the antenna up a bit higher (off the trees), too, but have yet to figure out
> precisely how.
>
> I guess this beautiful Johnson Matchbox will go unused a while longer....
>
> Bill W2ET
>
> "Dick Carroll" <dixie@townsqr.com> wrote in message
> news:3DED7F0A.6A20B2C2@townsqr.com...
> >
> >
> > It appears from his original message that his "balanced antenna" really
> isn't
> > balanced at all, given that one side of it touches pine tree limbs. That
> causes
> > unbalance will surely cause common mode radiation on the twin lead which
> *will*
> > induce into the house AC wiring as the feedline transits through the house
> to the
> > shack.
> >
> > I'd try a piece of good coax long enough to reach well outside the
> house, with
> > a good choke balun installed just before it transitions to the ladderline.
> >
> > Dick
> >

3979. need mic wiring help

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 00:41:47 UTC
From: DAVE & SHANNA CRASE <crase1@alltel.net>
Message-ID: <fnSH9.22$iT6.50559@news.alltel.net>
Source record: 129917

need mic wiring to wire a kenwood mc60 to a icom v-8000
can some one please help
crase1@alltel.net
kc8urb@yahoo.com

3980. Re: need mic wiring help

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 00:50:23 UTC
From: W6DKN <w6dkn-nospam-@qsl.net>
Message-ID: <aoSH9.25559$EY.25042@fe01>
Source record: 129918

"DAVE & SHANNA CRASE" <crase1@alltel.net> wrote in message
news:fnSH9.22$iT6.50559@news.alltel.net...
> need mic wiring to wire a kenwood mc60 to a icom v-8000
> can some one please help
> crase1@alltel.net
> kc8urb@yahoo.com
>
>

take a look here ... http://bellsouthpwp.net/k/d/kd5eis/MC60.htm . Should
be plain enough to adapt to your particular rig...

73 de W6DKN

3981. Re: ARRL antenna book editions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 01:24:07 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3df001d2_2@news1.prserv.net>
Source record: 129819

Actually, our understanding of the theory has changed, with the availability
of high speed computing. Several of the assumptions which had to be made in
early days due to inability to correctly model things such as lossy earth
have proven to be exactly backwards.

The second practical matter is that recent editions use materials which are
actually available now. A lot of stuff we used to use is getting diffcult
to find.

The point another answer makes about the software is very valid also.

--
Crazy George
Remove NO and SPAM from return address

"Sean Harding" <jkm93ska@temp.seanh.net> wrote in message
news:f49c48db.0212051223.49c5d1c4@posting.google.com...
> I'm looking to pick up the ARRL Antenna Book to learn more about how
> antennas work and possibly do some simple homemade antenna projects.
> My first project would probably be an 800MHz antenna for a scanner,
> but I have an interest in learning about all kinds of antennas (so I'm
> not looking just for instructions on how to do that specific project).
>
> How much does it matter which edition of the book I get? The 19th ed.
> goes for $24-30 new, and I have seen older editions for under $10. The
> basic science doesn't seem to likely to change from edition to
> edition. So what is the real difference? I'm willing to pay for the
> newest edition if there's a good reason to do so; I just want to be
> sure I'm not throwing money away.
>
> Thanks.
>
> sean

3982. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 01:48:06 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <kjvvuu4cbgur0lsksoob312bintgek353s@4ax.com>
Source record: 129820
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Thu, 5 Dec 2002 23:58:59 -0000, "Brian Reay"
<brian.reay@bigfoot.com> wrote:

| "Wes Stewart" <n7ws@#arrl.net> wrote in message
|news:1gjvuu0r0s8uqa3p98sdu8q0m8uvteod1n@4ax.com...
|> On Thu, 5 Dec 2002 17:06:31 -0000, "Brian Reay"
|> <brian.reay@bigfoot.com> wrote:
|>
|> | "Wes Stewart" <n7ws@#arrl.net> wrote in message
|> |news:j8suuu0867kmrvk47rkr4t4uns42iop1o9@4ax.com...
|> | >
|> |> Let's forget the line loss for the moment and deal with the 5W you
|> |> claim are incident on the load:
|> |>
|> |
|> |The line loss was the bit I was trying to demostrate- maybe if you check
|the
|> |thread.
|>
|> Oh I have. It was you that first introducted the 3 dB line loss.
|>
|
|Aghh! Yes, I know. To indicate that the power could be dissipated in other
|places than the load- ie in the line. Which is why I didn't what to ignore
|it. I usually find that ignoring something you are trying to demonstrate is
|an unproductive approach.

But all you have done is inject another factor before you have grasped
the point made by all of the other correspondents, who actually
understand the original proposition.

I dare say almost all of the regular participants in this group
(r.r.a.a.) are completely aware of the effects of line loss and don't
need a lecture from you about it.
|
|
| I think you are arguing for arguing sake.

Quite the contrary. I am trying to get you to see and/or admit your
mistakes. It was you that stated, "...the last thing you need is
someone confusing the technical stuff they are learning!"

Here, for once, we are in total agreement.

Now, let me pose a simple question for you that requires no more than a yes or no answer:

In a 50 ohm system does a 25 +j0 load reflect 50% of the power incident on that load?

[ ] Yes

[ ] No

When we get this cleared up, we can move forward.

3983. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 01:51:38 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF002AA.2080907@ieee.org>
Source record: 129821

Rick Littlefield wrote:
>>With one hand already holding a cell phone, it would seem they would
>> have to learn to drive with their knees...<
>
> Who needs guns? Distracted drivers packing cell phones killed over 2600
> Americans last year. Any statiastics on how many of those vile weapons of mass
> destruction were outfitted with fractal antennas??

I've often wondered, why is talking on a cell phone all that different
from talking on a ham radio? Do hams have wrecks while talking on a
ham radio? Do hams have wrecks while talking on a cell phone?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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3984. Re: ARRL antenna book editions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 01:54:47 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF00367.2060901@ieee.org>
Source record: 129822

Crazy George wrote:
> Actually, our understanding of the theory has changed, with the availability
> of high speed computing.

One thing that has changed in the past few years - the ARRL doesn't
like conjugate matches any longer. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3985. A Very Useful URL

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 01:57:36 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF00410.5080003@ieee.org>
Source record: 129823

I stumbled across a very useful URL today. Try
http://www.newwaveinstruments.com and click on "RF Resources".
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3986. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 01:59:44 UTC
From: tdonaly@aol.com
Message-ID: <20021205205944.26037.00000554@mb-fi.aol.com>
Source record: 129825

>
>>With one hand already holding a cell phone, it would seem they would
>have to learn to drive with their knees...<
>
>Who needs guns? Distracted drivers packing cell phones killed over 2600
>Americans last year. Any statiastics on how many of those vile weapons of
>mass
>destruction were outfitted with fractal antennas??
>
>Rick K1BQT
>

If you want to take the cell phones away from people around here you'll
have to pry them from their cold, dead, fingers.
73,
Tom Donaly

3987. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 01:59:57 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <2410vusdclsj4pp3aouu009f3jokjc4h5a@4ax.com>
Source record: 129824

On 05 Dec 2002 23:05:44 GMT, k1bqt@aol.com (Rick Littlefield) wrote:

|>With one hand already holding a cell phone, it would seem they would
|have to learn to drive with their knees...<
|
|Who needs guns? Distracted drivers packing cell phones killed over 2600
|Americans last year. Any statiastics on how many of those vile weapons of mass
|destruction were outfitted with fractal antennas??

All of them.

3988. Re: ARRL antenna book editions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 02:03:24 UTC
From: Sean Harding <jkm93ska@temp.seanh.net>
Message-ID: <jkm93ska-32B8F3.18032405122002@news.sharding.net>
Source record: 129826

In article <3df001d2_2@news1.prserv.net>,
"Crazy George" <munschNO@attglobal.net.SPAM> wrote:

> Actually, our understanding of the theory has changed, with the availability
> of high speed computing. Several of the assumptions which had to be made in
> early days due to inability to correctly model things such as lossy earth
> have proven to be exactly backwards.
>
> The second practical matter is that recent editions use materials which are
> actually available now. A lot of stuff we used to use is getting diffcult
> to find.

Thanks. That makes a lot of sense. I'll just go ahead and pick up the
newest edition.

I presume the software is Windows or DOS software, which won't do my Mac
and Unix household much good, but you never know!

Thank again for the info.

sean

3989. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 02:10:47 UTC
From: I Smac <Smac61yourpanties@hotmail.com>
Message-ID: <trecnUpWO7CFmm2gXTWcow@comcast.com>
Source record: 129827
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Thanks everyone for taking the time to answer my question(s)
I wonder if anyone could point out the error in my thinking,
and hence the reason for my original post.

I will lessen the severity of the example to help focus my question:

I have a VHF FM radio deflecting a Bird wattmeter to 100W forward
and I observe 10W reflected. (radio>jumper>meter>feedline>load)

Coax losses aside, If 90W is produced by the source and 90W is dissipated
by the load, where does the 10W come from?

I'm having a problem with conservation of energy, and obviously
must be missing something.

Thanks,
Smac

3990. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 02:28:10 UTC
From: dplatt@radagast.org
Message-ID: <uv02pqr6gjgv54@corp.supernews.com>
Source record: 129828

In article <3DF002AA.2080907@ieee.org>,
OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:

>> Who needs guns? Distracted drivers packing cell phones killed over 2600
>> Americans last year. Any statiastics on how many of those vile weapons of mass
>> destruction were outfitted with fractal antennas??
>
>I've often wondered, why is talking on a cell phone all that different
>from talking on a ham radio? Do hams have wrecks while talking on a
>ham radio? Do hams have wrecks while talking on a cell phone?

Part of it, at least, is the issue of dialing. A lot of people use ordinary, compact handheld cellphones in their car. Making a call on one of these is difficult to do with one hand, and pretty much requires that you take your eyes off of the road for several seconds to dial. I read one letter lately from a guy who observed a cellphone driver slowing down in the middle of the freeway - the driver was "steering" with his elbows, had both hands on his phone (one to hold and one to punch buttons) and was looking at the phone rather than at the road.

SMS messaging is probably making matters even worse, since people are now getting into the habit of "reading their email" on a tiny screen at 65 MPH, or even trying to type out a reply while driving.

I suspect that hams _are_ at some increased additional risk when they talk on a mobile while driving... especially when operating the controls on the rig. However, the control mechanisms on a mobile are more likely to be designed to be operated while driving - larger, capable of being operated without being looked at (at least for the volume and squelch knobs), and there's a lot less "dialing" involved since most of us probably tend to have two or three favorite repeater channels pre-programmed on the rig, and don't try to key in frequencies manually while in motion.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3991. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 02:45:03 UTC
From: fractenna@aol.com
Message-ID: <20021205214503.06713.00000231@mb-dd.aol.com>
Source record: 129829

>If you want to take the cell phones away from people around here you'll
>have to pry them from their cold, dead, fingers.
>73,
>Tom Donaly
>

If you knew someone who died while using a cell phone, with cruise control on
wet pavement, you might be a tad bit more charitable.

I do.

73,
Chip N1IR

3992. Re: Aluminum in San Diego area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 02:51:52 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0212051851.352c784f@posting.google.com>
Source record: 129830

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DEB8495.3070103@ieee.org>...
> Stahr wrote:
> > Could somebody tell me where, in the San Diego area, I can find some
> > aluminum to build a simple 10m dipole?
>
> The large hardware stores around here carry aluminum tubing.

Gotta watch that Cecil, that stuff is usually junk-level soft material
intended for easy working vs. strength. He oughta stick with the
industrial sources and ask for "the good stuff", 6061T6, etc.

w3rv

3993. Balcony Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 03:05:23 UTC
From: H Johnson <classy-hjohnson@classy-daystardev.dyndns.org>
Message-ID: <v140vukkffhlffp9rlkl1eiq4ai41f1sdt@4ax.com>
Source record: 129831

I am considering using the antenna described by SM0VPO at
http://w1.859.telia.com/~u85920178/antennas/balcant1.htm and
and attaching this to one of the posts on my 10x10x6 dog kennel with
ground radials buried about 1" below the surface (actually I think the
square piping on the ground should help as well for a ground plane I
hope). I would think that this would be a good place as well because
it will be about 50-75 feet away from the house. Also installing a
remote antenna switch will allow me to select the band I want to use.

The overall length of the antenna described is about 17 feet. Should
I raise the antenna higher since it will be essentially a ground
mounted vertical?

- H. Johnson

Best Regards,
Howard Johnson

==========
Howard Johnson
Senior Development Engineer
@fax, Inc, and TAC Systems,Inc.
4620 Commercial Drive
Huntsville, AL 35816
Voice: (256) 721-1976 Fax: (256) 721-0242
==========

3994. Re: ARRL antenna book editions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 03:07:57 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <EBTwPYFobEmvSmY=WSsB549vglXw@4ax.com>
Source record: 129832

Sean Harding <jkm93ska@temp.seanh.net> wrote:

>
>I presume the software is Windows or DOS software, which won't do my Mac
>and Unix household much good, but you never know!

On the other hand, it gives you an excuse to scrounge around and pick up an old
Windows 95 or 98 computer at your local PC recycler :-)

Bob
k5qwg
>
>Thank again for the info.
>
>sean

3995. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 03:14:07 UTC
From: dan <danlx@execpc.com>
Message-ID: <3df015ad$0$1423$272ea4a1@news.execpc.com>
Source record: 129833

On Thu, 05 Dec 2002 19:51:38 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Rick Littlefield wrote:
>>>With one hand already holding a cell phone, it would seem they would
>>> have to learn to drive with their knees...<
>>
>> Who needs guns? Distracted drivers packing cell phones killed over 2600
>> Americans last year. Any statiastics on how many of those vile weapons of mass
>> destruction were outfitted with fractal antennas??
>
>I've often wondered, why is talking on a cell phone all that different
>from talking on a ham radio? Do hams have wrecks while talking on a
>ham radio? Do hams have wrecks while talking on a cell phone?
Hi Cam,
Most hams are probably not afraid to drop the mike when necessary
while most people are too afraid to drop or not concentrate on that
cell phone and the oh so important person on the other end.

I talk in the mobile often and it never distracts me from my driving.
Of course I have seen one person on a cell holding the phone, the
wheel, the pad of paper and the pencil they were trying to write with!
Oh well.
Dan
N9JBF

I've rambled enough, back to the rocking chair. ZZZZZZZZZ
Remove left x for e-mail reply.

3996. Re: ARRL antenna book editions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 03:19:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv05plghjbcje0@corp.supernews.com>
Source record: 129834

Somewhere around the 14th or 15th Edition, then-editor Jerry Hall, K1TD, completely re-did the whole Antenna Book. He pulled out inaccurate stuff which had crept in over the years, and included a lot of new and accurate information. The Antenna Book about doubled in thickness when this was done, so you can pretty easily tell a pre-overhaul edition from an after-overhaul edition. Since then, corrections have been made to information found to be inaccurate or unclear, but the changes haven't been nearly as drastic. I do recommend that you get a recent version, but if you don't want to shell out the money for a new one (a tremendous bargain even at the new price), I highly recommend that you at least get one that was issued after Jerry's overhaul.

Roy Lewallen, W7EL

Sean Harding wrote:
> I'm looking to pick up the ARRL Antenna Book to learn more about how
> antennas work and possibly do some simple homemade antenna projects.
> My first project would probably be an 800MHz antenna for a scanner,
> but I have an interest in learning about all kinds of antennas (so I'm
> not looking just for instructions on how to do that specific project).
>
> How much does it matter which edition of the book I get? The 19th ed.
> goes for $24-30 new, and I have seen older editions for under $10. The
> basic science doesn't seem to likely to change from edition to
> edition. So what is the real difference? I'm willing to pay for the
> newest edition if there's a good reason to do so; I just want to be
> sure I'm not throwing money away.
>
> Thanks.
>
> sean

3997. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 03:49:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv07iaau55271d@corp.supernews.com>
Source record: 129836
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

The 10 W was put into the line in the first few nanoseconds after you applied power. Let's take the extreme and easily analyzed case of a lossless half wavelength 50 ohm line that's open at the far end. You turn on your transmitter, and it doesn't immediately know that the line is open at the far end. It merrily dumps 100 watts into the line, which it can't tell from a 50 ohm resistor. On the line are 100 watts forward and zero reverse power. The voltage and current waves arrive at the far end and reflect, arriving back at the input after a round trip. There, they encounter the signal still being applied from the source, resulting a complete re-reflection at the input end of the line. At that moment, the apparent impedance seen by the source jumps from 50 ohms to infinity. (What it sees looks like another source producing exactly the same voltage as it is, so current flow from the source ceases.) The source quits putting any power into the line since it's now looking into an apparent open circuit, but the re-reflection provides exactly the same voltage and current for the forward wave that were formerly provided by the source. So the forward wave, initially generated by the source, is now being furnished entirely by the re-reflected reverse wave. On the line, you've got 100 watts forward and 100 watts reverse, forever (remembering that our line is lossless). If the line were 100 ns long (one way), the transmitter would have had to provide 100 watts for 200 ns, a total of 20 microjoules of energy, until the reflection got back after initially applying power. That's where the energy on the line came from. Any time after the line is charged (that is, after the initial reflection hits the source), we can disconnect the source without any effect on what's happening on the line. The 20 microjoules of energy is bouncing back and forth on the line, and a magical lossless directional wattmeter inserted anywhere along the line will read 100 watts forward and 100 watts reverse. If you put a 50 ohm load on one end of the line, you'd get 100 watts into the load for 200 ns as the line discharges. (That, incidentally, is exactly the way they used to make radar pulses, although it was DC rather than RF applied to the line. A thyratron was used as the switch to charge a line -- usually a lumped element substitute --, which was then discharged into a magnetron. The reflected wave turned the thyratron off.) If you put any other load with finite resistance on the end of the line, you'd still get 20 uJ out, but at a different rate (that is, less power for a longer time).

Roy Lewallen, W7EL

I Smac wrote:
> Thanks everyone for taking the time to answer my question(s)
> I wonder if anyone could point out the error in my thinking,
> and hence the reason for my original post.

>
> I will lessen the severity of the example to help focus my question:
>
> I have a VHF FM radio deflecting a Bird wattmeter to 100W forward
> and I observe 10W reflected. (radio>jumper>meter>feedline>load)
>
> Coax losses aside, If 90W is produced by the source and 90W is dissipated
> by the load, where does the 10W come from?
>
> I'm having a problem with conservation of energy, and obviously
> must be missing something.
>
> Thanks,
> Smac
>
>
>

3998. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 03:52:18 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv07nf2ukoip78@corp.supernews.com>
Source record: 129837

I was thinking that the subject matter didn't match the subject title at all. But on reflection, they're a perfect fit: "Fractal debate" is a perfect description of the discussion.

Roy Lewallen, W7EL

3999. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 03:57:24 UTC
From: richardharrison@webtv.net
Message-ID: <28141-3DF02024-202@storefull-2311.public.lawson.webtv.net>
Source record: 129839

Smac wrote:
"Coax losses aside, if 90W is produced by the source and 90W is
dissipated by the load. where does the 10W come from?"

Smac`s Bird wattmeter manual says. "Power delivered to and dissipated in
a load is given by:
Watts into Load = Wf - Wr

So, 90W = 100W - 10W

Wf is the sum of 90W +10W = 100W
100W is the sum of the 90 watts being produced and consumed plus the 10
watts just circulating in the system. Were there zero loss in the coax,
the reflected 10W would only have to be supplied initially. The power
required to make up the loss incurred of each reflected power round trip
in the coax is probably too small to sense as separate from the load
power.

Best regards, Richard Harrison, KB5WZI

4000. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 04:13:18 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF023DE.3010807@ieee.org>
Source record: 129838
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

I Smac wrote:
> Thanks everyone for taking the time to answer my question(s)
> I wonder if anyone could point out the error in my thinking,
> and hence the reason for my original post.
>
> I will lessen the severity of the example to help focus my question:
>
> I have a VHF FM radio deflecting a Bird wattmeter to 100W forward
> and I observe 10W reflected. (radio>jumper>meter>feedline>load)
>
> Coax losses aside, If 90W is produced by the source and 90W is dissipated
> by the load, where does the 10W come from?
>
> I'm having a problem with conservation of energy, and obviously
> must be missing something.

Your SWR is 1.9:1. Your load is accepting 90% of the incident power
and reflecting 10% of the incident power. The 10W is energy generated
by the source but not accepted by the load, i.e. the generator has
generated more power than has been accepted by the load. Those conditions
happen during the transient buildup to steady state.

If you want to visualize what happens, consider a one second long lossless
transmission line. After one second, the T-line contains 90 joules. After
two seconds, the T-line contains 99 joules, ... after 'n' seconds, the T-line
contains 110 joules at steady-state.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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4001. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 04:18:58 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <uv098jjc72g0f6@corp.supernews.com>
Source record: 129840
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Dee D. Flint wrote:

> Your radio is actually producing the 100 watts measured as "forward power."
> The 10 watts "reflected power" is going back into the radio.
>
> Dee Flint, N8UZE

Its most likely not going 'into' the radio but instead being
re-reflected again in the forward direction...or a least a substantial
portion of it.

-Bill

4002. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 04:22:57 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF02621.2080102@ieee.org>
Source record: 129841
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Dee D. Flint wrote:
> Your radio is actually producing the 100 watts measured as "forward power."
> The 10 watts "reflected power" is going back into the radio. Thus only 90
> watts (i.e. 100-10) is being delivered to the feedline. Depending on the
> feedline loss, something less than this will be delivered to the load.
>
> This is too much reflected power and you can potentially damage your radio.

The SWR is only 1.9:1 and can be considered a reasonable match. My IC-756PRO
doesn't start folding back until the reflected power reaches about 15W.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4003. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 04:29:25 UTC
From: richardharrison@webtv.net
Message-ID: <28143-3DF027A5-26@storefull-2311.public.lawson.webtv.net>
Source record: 129846

Dee Flint N8UZE wrote:
"This is too much reflected power (10 watts out of 100 watts of forward power) and you can potentially damage your radio."

I don`t know your radio, but I`ve seen and worked with 100`s of VHF radios and don`t know of any that would be uncomfortable with 10% of the incident power reflected. Check your spec. before you panic.

Best regards, Richard Harrison, KB5WZI

4004. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 04:32:40 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF036A8.FE6171DE@townsqr.com>
Source record: 129842

Tdonaly wrote:

> >
> >Mark Keith wrote:
> >
> >tdonaly@aol.com (Tdonaly) wrote in message
> >> I guess in a place like Texas a man needs a gun in order to make sure he
> >> sees his next birthday. It's different in other parts of the U.S. where
> >people
> >>
> >> are more on the civilized side.
> >
> >
> >
> >No, there is no real difference at all
> >
> >
> > Sure there's a difference, Mark. In Texas, as in other places with concealed
> >carry
> >laws, the owlhoots aren't the only ones carrying, and don't think the baddies
> >don't
> >know it. Or soon find out. As someone said, where anyone is likely to be
> >packing heat
> >people are *very* polite to each other.
> >
> > I have a brother who lives in Texas who told me not long ago, as we
> >discussed this
> >subject, that there was a recent case where a hoodlum showed up in a
> >restaurant and
> >stuck a gun in the cashier's face, whereupon TWO patrons stood up and
> >plugged him.
> >Don't think you'll see that on the Left coast. And you'll see it far less
> >often in
> >Texas in the future, too. They do eventually get the word.
> >
>
> Having a gun didn't help my wife's father who was gunned down in a robbery
> in 1968. It also didn't do anything for the armored car guards who were
> recently plugged in Oakland.You guys who feel more secure carrying a piece of
> iron strapped under your arms or hanging from your hips ought to realize that,
> in a shootout, all parties are likely to get ventilated.

The only guarantee that "equality" buys is that you at least have a chance, and
that the need will be less likely when the crooks know they don't automatically
have the upper hand. The statistics on this are clear- where privately owned guns

are common, violent crime is definitely less so. The crooks don't dare be so bold, and being cowards they really don't relish being ventilated themselves.

I agree with Mark - Packing a gun everywhere would be much too much of a burden and responsibility for most of us to want to keep up with on any continuous basis. No question about it, any weapon is a very demanding responsibility. But there are times and places one can't feel the least bit secure without one, for very good reasons.

We can wish it was a more perfect world and that such situations didn't exist. That won't make the baddies act nice. Yes, sometimes both parties get "ventilated". Can't say that's any worse than only one, since the "one" would have been the victim, and at least he was able to take out the perp too. Seen that happen already, to an offduty police officer who was the victim of a carjacking. Both he and the perp died. But the previous carjacking in that same city ended with the brutal execution murders of two college girls who were in the car. That's better? A third girl, shot and left for dead, survived to testify against the two perps. THEY got 'life' when they shoulda been fried. No doubt they'll be on the street again in a few years. Helps to have a "ethnic" jury.

Your choices are to submit to the likely drugcrazed robber/rapist/whatever, and hope against hope he won't decide to "leave no witnesses", common these days since it helps assure there will be no prosecution - or defend yourself.
Failure to defend oneself just doesn't make sense. Might as well let Al Queda do it to us, it all comes out the same.

4005. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 04:35:44 UTC
From: I Smac <Smac61yourpanties@hotmail.com>
Message-ID: <3gednbJtVcGMtG2gXTWcoQ@comcast.com>
Source record: 129843
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"OC_CAM's Razor" wrote...
> Your SWR is 1.9:1. Your load is accepting 90% of the incident power
> and reflecting 10% of the incident power. The 10W is energy generated
> by the source but not accepted by the load, i.e. the generator has
> generated more power than has been accepted by the load. Those conditions
> happen during the transient buildup to steady state.

So your saying that my radio produces 100W
and my load dissipates 90W ?

Smac

4006. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 04:41:25 UTC
From: Harold Burton <hwburton@swbell.net>
Message-ID: <VTVH9.1372$0B5.992766208@newssvr12.news.prodigy.com>
Source record: 129845

"Tdonaly" <tdonaly@aol.com> wrote in message
news:20021205205944.26037.00000554@mb-fi.aol.com...
> If you want to take the cell phones away from people around here you'll
> have to pry them from their cold, dead, fingers.

I think thats already happening frequently.

4007. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 04:41:49 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF038CD.89BCD908@townsqr.com>
Source record: 129844

Richard Clark wrote:

> On 05 Dec 2002 14:45:41 GMT, tdonaly@aol.com (Tdonaly) wrote:
>
> > in a shootout, all parties are likely to get ventilated.
> >73,
> >Tom Donaly, KA6RUH
>
> All Hail Bush!
>
> It should also be pointed out, it is usually the first one to pull the
> trigger that wins. I am sure the loser is glad to see (from on high)
> the prize is a ride on Sparky for five minutes. Given the high degree
> of arming in Texas, and the equally high degree of sending folks to
> the chamber; that argues an airtight case for the warm snuggly feeling
> of security. If you feel a little chill, we will light up another
> convict and things will be OK again.
>
> It will no doubt grieve the sniper-huggers that
> "Federal agents yesterday raided the Tacoma gun store that was the
> last legal stop for a rifle later used in a multistate crime spree
> linked to East Coast sniper suspect John Allen Muhammad.
> ...
> "and sold 'off the books.'"
> ...
> "There appears to be a large number of guns sold off the books..."
>
> Duh, with 300 guns a year average going out the back door to satisfied
> customers, why would a criminal want to steal one? When the owner
> reports these missing items each year, does someone have to shoot a
> dozen people in Washington D.C. to make a connection for the Feds?
> Does Arthur Anderson do the books for the Feds' reporting system?

"But Sir, what we REALLY need is some more laws controlling all this gun traffic.... " quoth Charlie Shumer, Toady Kennedy, Hilarious Clintoon et al...
"Better yet, just ban all guns, that'll solve it!" Right!

Might try taking care of those laws already booked. More that are unenforced just add to the problem and give rise to false expectations as did the last several dozen.

4008. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 04:42:40 UTC
From: "Dee D. Flint" <deehays@qix.net>
Message-ID: <4VVH9.6105$4j5.2999143@newssvr28.news.prodigy.com>
Source record: 129835
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"I Smac" <Smac61yourpanties@hotmail.com> wrote in message
news:trecnUpWO7CFmm2gXTWcow@comcast.com...
> Thanks everyone for taking the time to answer my question(s)
> I wonder if anyone could point out the error in my thinking,
> and hence the reason for my original post.
>
> I will lessen the severity of the example to help focus my question:
>
> I have a VHF FM radio deflecting a Bird wattmeter to 100W forward
> and I observe 10W reflected. (radio>jumper>meter>feedline>load)
>
> Coax losses aside, If 90W is produced by the source and 90W is dissipated
> by the load, where does the 10W come from?
>
> I'm having a problem with conservation of energy, and obviously
> must be missing something.
>
> Thanks,
> Smac

Your radio is actually producing the 100 watts measured as "forward power." The 10 watts "reflected power" is going back into the radio. Thus only 90 watts (i.e. 100-10) is being delivered to the feedline. Depending on the feedline loss, something less than this will be delivered to the load.

This is too much reflected power and you can potentially damage your radio. You need to match the impedance of the feedline+load to the impedance of your radio. Perhaps your antenna is too long or too short but either way you need to fix this.

Dee Flint, N8UZE

4009. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 04:46:58 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF03A03.B41A6BDF@townsqr.com>
Source record: 129847

Richard Clark wrote:

> Given the high degree
> of arming in Texas,

I dunno, Rich, I've spent a couple months in Texas this year and so far I haven't seen anyone yet that I could tell was armed other than some cops. Wonder where all the guns are? The "wild west" it isn't. You suppose those people who are packing are actually doing sensible things with their hardware, and normalcy actually reigns superior to some of the places where the owlhoots know they have the upper hand?

Dick

4010. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 05:01:21 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF03D62.7642BCAA@townsqr.com>
Source record: 129848

Arrow146 wrote:

> << As someone said, where anyone is likely to be packing heat
> people are *very* polite to each other. >>
>
> If the Law required every Vehicle to contain a loaded firearm, would people
> drive different ?
> they're certainly
>

Maybe a more realistic question would be "where any vehicle may contain a firearm.....". Actually my experience with Texas drivers is that they are more courteous that most. The almost have to be, the traffic is awful in the cities. If they weren't courteous one might sit for hours waiting to pull into traffic. As it is people routinely yield.

I have yet to see any place that has concealed carry law to have a problem with it. It just doesn't seem to happen. Most people have sufficient common sense, and with the "filters" in place to keep unstable people and crooks from getting the permits, the laws just don't cause problems.

4011. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 05:17:50 UTC
From: Earth Wolf <"Earth Wolf"@telusplanet.net>
Message-ID: <3DF0331B.90300@telusplanet.net>
Source record: 129849

Fractenna wrote:

>I'm not the one to present the 'arguments';-)
>
That's precisely the problem.

--
In accordance with a first aspect of the present invention, there is provided a transportation facilitation device including a circular rim, a bearing in which a hollow cylindrical member is rotatable about a rod situated within the hollow cylindrical member, and a series of connecting members connecting the circular rim with the hollow cylindrical member to maintain the circular rim and the hollow cylindrical member in substantially fixed relation, wherein the rod is positioned on an axis perpendicular to the plane of the circular rim, and substantially central of the circular rim.

Abstract from John Keogh's successful 2001 application for an Australian patent (Innovation Patent #2001100012) for the "Circular transportation facilitation device" aka "wheel".

4012. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 05:24:21 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF042C5.C68FF937@townsqr.com>
Source record: 129850

Art Unwin KB9MZ wrote:

> Dick Carroll <dixie@townsqr.com> wrote in message
news:<3DEEEEAB.19DDF1C7@townsqr.com>...
> > Wes Stewart wrote:
> >
> > > On 4 Dec 2002 14:48:36 -0800, nm5k@wt.net (Mark Keith) wrote:
> > >
> > > |aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message Everybody knows that
illegals are not deported now
> > > |> or even reported by the police so certainly none of the 'illegals' are
> > > |> down trodden today.
> > > |
> > > |Not the case here. INS does sweeps of likely hangout places regularly here.
> > > |IE: labor force pickup spots, etc. If they get caught, they go back to Mexico.
> snip>
> > > This country is nutty as a fractal antenna.
> >
> > None of this is new stuff either. I recall from the mid-80's when I took a call from a
state trooper saying he
> > was detaining a van load of illegal Mexican aliens at roadside. He requested I contact
INS at Kansas City for
> > instructions on their disposal. The reply from INS: "Turn them loose". Which is exactly
what we did.
> >
> > Dick
>
> On the other side of the coin the U.S. has been extremely lucky. The
> ever increasong group of Islam followers in the U.S. have not formed
> cells to combat
> the assaults by Jews and Christians, even tho we force all to pay
> taxes for use against Islam. In Illinois the State have just changed
> tax dispersement rules so it can borrow a few million to send out for
> the fight against Islam and for a Greater Israel Yet we have not had
> the religeous ethnic clashes that occur elsewhere and in general they
> appear to be good citizens despite the growing number of attacks. On
> the other hand we are seeing mounting violence by those that come from
> Christian countries !
> So as was the question earlier......Is this Country nutty or what ?
> Since the World knows where missiles are made is it unthinkable that
> we will eventually see them in use here by visitors?
> I suppose this can be classed as whining if we cry when it happens at
> home.
> Art

Art, seems you have forgotten something - September 11, 2001 and all it's implications.

4013. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 05:34:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv0dm5ncqpki4b@corp.supernews.com>
Source record: 129851
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

No, it's not going back into the radio. It's bouncing back and forth in the line. My favorite example is a 141.4 volt RMS voltage source connected to an open circuited half wavelength line through a 50 ohm resistor. Within a few nanoseconds of turning the source on, there's 100 watts forward power and 100 watts reverse power in the line, the 50 ohm resistor dissipates nothing, and the current into and out of the source are zero; it neither furnishes nor dissipates power.

It's not reverse power that can damage a rig. What causes damage is operating into an impedance it's not designed for.

Roy Lewallen, W7EL

Dee D. Flint wrote:
>
> Your radio is actually producing the 100 watts measured as "forward power."
> The 10 watts "reflected power" is going back into the radio. Thus only 90
> watts (i.e. 100-10) is being delivered to the feedline. Depending on the
> feedline loss, something less than this will be delivered to the load.
>
> This is too much reflected power and you can potentially damage your radio.
> You need to match the impedance of the feedline+load to the impedance of
> your radio. Perhaps your antenna is too long or too short but either way
> you need to fix this.
>
> Dee Flint, N8UZE
>
>

4014. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 05:47:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv0eeig7erk6f8@corp.supernews.com>
Source record: 129852

Let's suppose I connect my rig through a half wavelength of 450 ohm line to a 50 ohm resistive load. My rig sees 50 ohms, and is just as happy as it would be feeding a dummy load; it can't tell the difference.

But if the transmitter is putting out 100 watts, the forward power on the transmission line is about 278 watts and the reverse power is 178. The load is dissipating all 100 watts put out by the transmitter (we're assuming negligible line loss here).

So what does reflected power have to do with whether the transmitter is happy? It can't tell the difference between a dummy load, a 50 ohm transmission line with 100 watts forward and zero reverse power, or the 450 ohm line in the example, with 278 watts forward and 178 reverse.

Roy Lewallen, W7EL

Richard Harrison wrote:
> Dee Flint N8UZE wrote:
> "This is too much reflected power (10 watts out of 100 watts of forward
> power) and you can potentially damage your radio."
>
> I don`t know your radio, but I`ve seen and worked with 100`s of VHF
> radios and don`t know of any that would be uncomfortable with 10% of the
> incident power reflected. Check your spec. before you panic.
>
> Best regards, Richard Harrison, KB5WZI
>

4015. Any cb radio stores in Llano or brady

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 06:28:23 UTC
From: Recordking@Hotmail.com
Message-ID: <e8d89b3f.0212052228.6007fd60@posting.google.com>
Source record: 129853

I live in Houston and tommorrow I am making a road trip to midland. I
am wondering if their is a cb radio store in Llano or brady not radio
shack their mobile antenna selection is ok. If not are their any cb
radio stores from brady midland. If their are any what are their
store hours and where are the located. I might get some good cbing
out in
west texas.

4016. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 07:50:42 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <3ml0vuc51ioafaf0rid2748d1oi2oddvmn@4ax.com>
Source record: 129855

On Fri, 06 Dec 2002 04:46:58 GMT, Dick Carroll <dixie@townsqr.com>
wrote:

>
>
>Richard Clark wrote:
>
>> Given the high degree
>> of arming in Texas,
>
>I dunno, Rich, I've spent a couple months in Texas this year and so far I
>haven't seen anyone yet that I could tell was armed other than some cops.
>Wonder where all the guns are? The "wild west" it isn't. You suppose those
>people who are packing are actually doing sensible things with their hardware,
>and normalcy actually reigns superior to some of the places where the owlhoots
>know they have the upper hand?
>
>Dick

Hi Dick,

D'ya think all the killings were committed by bad manners? NYC would
be a ghost town if that heavy calibre were swung around.

73's
Richard Clark, KB7QHC

4017. Re: Disruptive Technologies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 08:06:52 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asplqk$c00$1@slb3.atl.mindspring.net>
Source record: 129856

Chip:

Have a look at...

http://www.furukawa.co.jp/english/what/antenna021001_e.htm

Now that's disruptive!

--
Peter K1PO
Indialantic By-the-Sea, FL

"Fractenna" <fractenna@aol.com> wrote in message
news:20021204211533.21094.00008631@mb-fx.aol.com...
> Hi P.O!
>
> I asked the XYL if she had the HBR issue with the first discussion of
> 'disruptive technologies'. Of course, she had it: its in a 1995 ish.
Author Joe
> Bower and Clay Christiansen.
>
> 73,
> Chip N1IR
>
>

4018. Re: A Very Useful URL

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 08:13:15 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <aspm6j$4cg$1@slb9.atl.mindspring.net>
Source record: 129857

Neat collection of "on point" URL's, thanks Cec!

--
Peter K1PO
Indialantic By-the-Sea, FL.

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DF00410.5080003@ieee.org...
> I stumbled across a very useful URL today. Try
> http://www.newwaveinstruments.com and click on "RF Resources".
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4019. Re: A Very Useful URL

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 08:13:44 UTC
From: samsvl@nlr.nl
Message-ID: <Xns92DC5DE1BB574samsvlnlrnl@137.17.128.14>
Source record: 129858

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in
news:3DF00410.5080003@ieee.org:

> http://www.newwaveinstruments.com

You're absolutely right !!

4020. Re: Disruptive Technologies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 11:22:05 UTC
From: fractenna@aol.com
Message-ID: <20021206062205.01527.00000191@mb-cr.aol.com>
Source record: 129859

>Chip:
>
>Have a look at...
>
>http://www.furukawa.co.jp/english/what/antenna021001_e.htm
>
>Now that's disruptive!
>

Too lossy.

Its an inverted F design with insufficient height for good 900 Mhz performance.

Injection molding is not a good manufacturing engineering practice for S-band:-)

I have some really great fractalized inverted F's there Peter. Ready to buy in quantity?

73,
Chip N1IR

4021. Re: Fractal Debate -- *OT*

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 12:16:09 UTC
From: "Copper.net" <davidw@copper.net>
Message-ID: <jy0I9.18734$5P3.1135276@newsfeed.slurp.net>
Source record: 129860

Hi, Art, and all interested:

Get a reliable copy of the Koran, and read Sura 9, the 'crusade sura', in which, inter alii, the antagonism of Islam to all other religions is declared, all but Mohammedans excluded from Mecca and rites of pilgrimage, idolaters menaced with slavery a/o slaughter, war declared on Christians and Jews until they are humbled and pay tribute ...

This pastoral idyll was often read on the field, before battle.

September 11th is the anniversary of a major defeat of the Mohammedans, at the hands of the Christians, several centuries ago, when the Mohammedans were once again threatening to take over Europe by force of arms. IIRC, in July 1683, the Grand Vizier Kara Mustapha, led his Turkish troops to Vienna and laid siege against the city. On September 11, 1683, a decisive battle was fought before the city walls. After an initial setback, Poland's great military leader, and later king, John Sobieski, with his forces, stormed the enemy camp, and routed its army.

IMO, the date of the assault on the US was no accident. Saddam moved his 'announcement' up one day in the same vein of thought.

73, Dave, N3HE

4022. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 12:24:11 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <HF0I9.9886$rv5.1382767@news20.bellglobal.com>
Source record: 129861

"Dick Carroll"
> "But Sir, what we REALLY need is some more laws
> controlling all this gun traffic.... "

The recent Canadian experience:
http://cbc.ca/storyview/CBC/2002/12/03/auditor021203
This news is from just two days ago.

Now I'm going to head over to the alt.guns newsgroup to see if anyone wants
to discuss the details of the mechanisms of EM radiation... Sigh...

4023. Re: Disruptive Technologies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 12:26:18 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF0A5AC.E2B33270@townsqr.com>
Source record: 129862

Cheez.....looks like Chipster is climbing onto the bandwagon...as the caboose.

"Peter O. Brackett" wrote:

> Chip:
>
> Have a look at...
>
> http://www.furukawa.co.jp/english/what/antenna021001_e.htm
>
> Now that's disruptive!
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL
>
> "Fractenna" <fractenna@aol.com> wrote in message
> news:20021204211533.21094.00008631@mb-fx.aol.com...
> > Hi P.O!
> >
> > I asked the XYL if she had the HBR issue with the first discussion of
> > 'disruptive technologies'. Of course, she had it: its in a 1995 ish.
> Author Joe
> > Bower and Clay Christiansen.
> >
> > 73,
> > Chip N1IR
> >
> >

4024. Re: Any cb radio stores in Llano or brady

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 13:16:41 UTC
From: Harold Burton <hwburton@swbell.net>
Message-ID: <Zq1l9.330$IT6.331064418@newssvr11.news.prodigy.com>
Source record: 129863

"DJboutit" <Recordking@Hotmail.com> wrote in message
news:e8d89b3f.0212052228.6007fd60@posting.google.com...
> I live in Houston and tommorrow I am making a road trip to midland. I
> am wondering if their is a cb radio store in Llano or brady not radio
> shack their mobile antenna selection is ok. If not are their any cb
> radio stores from brady midland. If their are any what are their
> store hours and where are the located. I might get some good cbing
> out in
> west texas.

Just in case no one can cite you a good CB shop on your planned route you might want to try a Loves truckstop. Every Loves I've been in seems to have the equivalent of a fairsized CB shop in it, with radios, antennae, and accessories. I'm sure a roadtrip of the extent you've planned will take you by several of them.

4025. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 13:23:18 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF0A4C6.4010206@ieee.org>
Source record: 129864
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

I Smac wrote:
> "OC_CAM's Razor" wrote...
>
>>Your SWR is 1.9:1. Your load is accepting 90% of the incident power
>>and reflecting 10% of the incident power. The 10W is energy generated
>>by the source but not accepted by the load, i.e. the generator has
>>generated more power than has been accepted by the load. Those conditions
>>happen during the transient buildup to steady state.
>
> So your saying that my radio produces 100W
> and my load dissipates 90W ?

No, during the transient buildup to steady-state, not all the power
produced by your transmitter makes it to the load. Standing waves
require a certain magnitude of extra energy. That amount of energy
is not available for any other purpose since it is being "used" to
achieve the steady-state standing wave status. Once steady-state has
been reached, the transmitter continues to output 90 watts, the load
continues to accept 90 watts, and a certain magnitude of energy is
"stored" in the transmission line. The higher the SWR, the greater
is the magnitude of energy needed to support the standing waves.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4026. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 13:25:17 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF0A53D.50603@ieee.org>
Source record: 129865

Dick Carroll wrote:
> I dunno, Rich, I've spent a couple months in Texas this year and so far I
> haven't seen anyone yet that I could tell was armed other than some cops.
> Wonder where all the guns are?f

Mine is under my T-shirt in the small of my back.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4027. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 13:57:11 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <T02I9.19615$5P3.1156052@newsfeed.slurp.net>
Source record: 129866

Practical in-line wattmeters such as the Bird are not quite as perfect as described below. The directivity spec on the wattmeter element(s) when its output is perfectly terminated in the Zo of the system (50 ohms, typ) is about 26dB -- an apparent ~1.1 VSWR.

So if the system termination itself has a 26dB return loss, the meter could read anything from 1.0000...VSWR (infinite return loss) to 1.152 VSWR (23dB return loss), rather than the true ~1.1 VSWR of the termination.

The reflected power wattmeter reading is the net result of the relative magnitudes and phases of the true reflected power mixing with what leaks across the imperfect sampling element from the forward power in the system.

R. Fry, CPBE

"Richard Harrison" <richardharrison@webtv.net> wrote
>
> The Bird wattmeter takes a sample of voltage across the coax and the
> current in the coax. It scales the two samples to equal quantities.
>
> The incident wave has voltage and current in-phase. The reflected wave
> has voltage and current 180-degrees out-of-phase.
>
> Thus the reflected wave samples cancel with the slug pointed to measure
> forward power.
>
> In the reverse power direction, polarity of the voltage and current
> samples are inverted. So the forward power samples cancel and the
> reverse power samples add in-phase and register on the meter.
>
> The idea is simple and workes well due to craftsmanship and calibration.

4028. Re: Balcony Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 14:13:31 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0212060613.2e6c85c0@posting.google.com>
Source record: 129867

Hi Howard,
I re-posted your question to http://ds.primasoft.bg/hhhmb/list.php?f=2
, Harry SM0VPO will surely answer you there.

73 de Ivan OK1SIP

4029. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 14:17:36 UTC
From: richardharrison@webtv.net
Message-ID: <12608-3DF0B180-27@storefull-2316.public.lawson.webtv.net>
Source record: 129868

Smac wrote:
"So you`re saying my radio produces 100W and my load dissipates 90W?"

Bird says:
"Power delivered to AND dissipated in a load is given by:
Watts into Load = Wf - Wr"
In the case above:
90 watts = 100watts - 10 watts
The equation balances ok. This asumes coax loss can be neglected when it is very small.

Power delivered to the load is close enough to the power delivered by the transmitter. It`s 90W in the example given.

The 10W rejected by the load adds to the 90W produced by the transmitter on re-reflection at the transmitter output. This produces 100W of forward power.

On first reflection from the load, 10% of the forward power had its phase between volts and amps shifted by 180-degrees. On re-reflection at the transmitter output, this re-reflected power had its phase between volts and amps shifted by an additional 180-degrees. Phase shift now totals 360-degrees and the re-reflected power has its volts and amps back in-phase and it is merged with the newly emerging power from the transmitter to make up the 100W of forward power.

If the transmitter can only deliver a tiny bit of power over 90W, it may take several round trips of reflected power to eliminate the incremental power required to set up the circulating 10W of reflected power. But at over 100,000 miles per second, the build up to steady-state is faster than a blink of an eye.

10 watts of the total forward power is not currently being delivered by the transmitter. It was delivered by the transmitter, but some time ago. The transmitter is only delivering the 90 watts indicated by the difference between forward and reflected powers.

Best regards, Richard Harrison, KB5WZI

4030. Corvette Antenna Mount

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 14:56:48 UTC
From: Stan <svs6920@home.com>
Message-ID: <QU2I9.261387$WL3.88569@rwcrnsc54>
Source record: 129769

Any ideas? Looking for a C5 (1997 to 2003 yr) Corvette antenna mount to a handle the 3/8 X 24 thread type antenna,

Thank you
Stan

4031. Re: Oh swami of differential metals . . .

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 15:12:02 UTC
From: richardharrison@webtv.net
Message-ID: <17815-3DF0BE42-15@storefull-2314.public.lawson.webtv.net>
Source record: 129771

Sylvan Butler wrote:
"Seems improbable (that dissimilar metals don`t loosen a Nicopress grip)."

Nicopress grips a steel screwdriver shank with a large aluminum alloy sleeve crimped-on as a handle before your eyes at trade shows as a gift to you to prove its permanence. Never heard of one losing its grip regardless of abuse. Mine is intact after decades.

I`ve erected countless shortwave broadcast antennas using thousands of Nicopress sleeves to clamp large copper and Copperweld cables, stranded and solid. Also used them on steel guy cables to support antenna curtains and radio towers. Never had a sleeve failure. Unrelated cable failures, maybe. Sleeves no.

Nicopress sleeves are also used on fiber ropes. Most aricraft control cables use them. All dissimilar metals and they are faultless.

Best regards, Richard Harrison, KB5WZI

4032. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 15:37:39 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asqg82$r97$1@knossos.btinternet.com>
Source record: 129770
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Dear Brian,

Regardless of line and load impedances and what the swr meter may be reading, if the line is sensibly lossless then all the power output from the transmitter must be dissipated in the load. Where else is the power to go?

How can a professional possibly disagree with such a simple and obvious statement?

Reg, G4FGQ

4033. Re: Disruptive Technologies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 16:00:13 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asqhi4$r9h$1@slb9.atl.mindspring.net>
Source record: 129772

Chip:

[snip]
"> I have some really great fractalized inverted F's there Peter. Ready to
buy in
> quantity?
>
> 73,
> Chip N1IR
[snip]

Yes, I'm ready to buy, what is your plant capacity?

--
Peter K1PO
Indialantic By-the-Sea, FL

4034. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 16:05:55 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asqhsq$5cd$1@slb6.atl.mindspring.net>
Source record: 129773
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Cecil:

[snip]
> achieve the steady-state standing wave status. Once steady-state has
> been reached, the transmitter continues to output 90 watts, the load
> continues to accept 90 watts, and a certain magnitude of energy is
> "stored" in the transmission line. The higher the SWR, the greater
> is the magnitude of energy needed to support the standing waves.
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

By George, I think you've got it!

What? No more *reflected power* sloshing back and forth longitudinally
along the line between the ends, just pure *stored energy* sloshing back
and forth transversally *across* the line between the distributed
capacitance
and inductance of the line, like in a tank circuit.

Neat, now we can do away with all of that re-reflection of power gobbledy
gook.

--
Peter K1PO
Indialantic By-the-Sea, FL

4035. Re: Antenna switch

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 16:17:40 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92DC69D1AFD39michalkunyahoocom@128.233.3.7>
Source record: 129775

Hmm I'm not sure how a printer switch would work with antennas and what would it it's signal loss. I thinking of a device which is connected to the computer by printer cable and which has inputs for different antennas on one side and on the other side a single output to the radio.

Bob Miller <bxmillerSpamNot@texas.net> wrote in news:AZfvPWuqWAF8S1IwIiQwXXaAw9H1@4ax.com:

4036. Re: OT..TV antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 16:19:39 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92DC6A27D1E3Amichalkunyahoocom@128.233.3.7>
Source record: 129776

I'm reading your message using x-news and there is an eye icon in the left upper corner of the message. What does it mean? How can I put an icon there?

4037. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 16:29:27 UTC
From: tdonaly@aol.com
Message-ID: <20021206112927.22931.00000218@mb-bg.aol.com>
Source record: 129774

>
>Richard Clark wrote:
>
>> Given the high degree
>> of arming in Texas,
>
>I dunno, Rich, I've spent a couple months in Texas this year and so far I
>haven't seen anyone yet that I could tell was armed other than some cops.
>Wonder where all the guns are? The "wild west" it isn't. You suppose those
>people who are packing are actually doing sensible things with their
>hardware,
>and normalcy actually reigns superior to some of the places where the
>owlhoots
>know they have the upper hand?
>
>Dick
>

What's an owlhoot?
73,
Tom Donaly, KA6RUH

4038. Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 16:47:42 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <Kw4I9.20896$5P3.1193649@newsfeed.slurp.net>
Source record: 129777

RE: Other (deep) threads here on this topic

Suggest that the list below outlines the main factors determining the ratio of forward and reflected power in any RF tx+antenna system.

A. The net, operating source impedance of the transmitter
B. The Zo of the transmission line to the antenna
C. The impedance match of the antenna to the transmission line
D. The attenuation of the transmission line at the operating frequency
E. The electrical length of the transmission line (i.e., its exact number of wavelengths)

Items D and E usually have little affect in HF amateur radio situations, but are important at VHF and above.

Two theoretical scenarios for an FM/TV broadcast station (my background)...

1. If item B = item C, then whatever transmitter power that is injected into the sending end of the transmission line surviving its loss is radiated. Power reflected from the antenna back into the line is zero, and the VSWR on the line is infinitely low. Items A and E are irrelevant for this consideration.

2. If item B does NOT equal item C, then the antenna will reflect power back to the source. Standing waves will occur on the transmission line.

a. If item A = item B, then the reflected power is totally absorbed by the transmitter.

b. If item A does NOT equal item B, then the reflected power from the antenna NOT absorbed by the transmitter will mix with the forward power being generated at that time by the transmitter. Therefore the net output power of the tx at that time will depend on the magnitudes and phases of the two (forward) waveforms. The phase of the re-reflected component at the tx will be largely a function of the electrical length of the transmission line to the antenna; the magnitude will be largely a function of the impedance matches at both ends of the line, and line loss.

Item 2b above is the (almost) universal practical case. Broadcast transmitter sources can have a return loss varying from <1dB for some tube amplifiers to ~20dB for some solid-state PAs.

Hopefully this adds something useful to the posts on this topic.

Richard Fry, CPBE

4039. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 17:00:43 UTC
From: tdonaly@aol.com
Message-ID: <20021206120043.22931.00000219@mb-bg.aol.com>
Source record: 129778

>
>Arrow146 wrote:
>
>> << As someone said, where anyone is likely to be packing heat
>> people are *very* polite to each other. >>
>>
>> If the Law required every Vehicle to contain a loaded firearm, would people
>> drive different ?
>> they're certainly
>>
>
>Maybe a more realistic question would be "where any vehicle may contain a
>firearm.....". Actually my experience with Texas drivers is that they are
>more courteous that most. The almost have to be, the traffic is awful in the
>cities. If they weren't courteous one might sit for hours waiting to pull
>into
>traffic. As it is people routinely yield.
>
> I have yet to see any place that has concealed carry law to have a problem
>with it. It just doesn't seem to happen. Most people have sufficient common
>sense, and with the "filters" in place to keep unstable people and crooks
>from
>getting the permits, the laws just don't cause problems.
>

This thread is off topic and should be continued on another newsgroup if it's
continued at all. If people want to believe that a hot pistol next to their
skin
will preserve their lives, that's fine. Hopefully, they'll never find out any
different. The other myth, that allowing everyone to carry a concealed weapon
will make society safer is proved to be a lie every day in the poorer sections
of
large cities where there are lots of concealed weapons and also lots of
killings.
My own opinion is that gun laws won't decrease the murder rate much. In
China, people have found they can kill each other very efficiently with
dynamite and rat poison. However, the religious assumptions of some
groups, that universal gun ownership will decrease crime and safeguard
civil liberties are just that: dogma without any basis in fact.
73,
Tom Donaly, KA6RUH

4040. Re: Disruptive Technologies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 18:01:51 UTC
From: fractenna@aol.com
Message-ID: <20021206130151.10320.00008698@mb-mv.aol.com>
Source record: 129779

>
>Chip:
>
>[snip]
>"> I have some really great fractalized inverted F's there Peter. Ready to
>buy in
>> quantity?
>>
>> 73,
>> Chip N1IR
>[snip]
>
>Yes, I'm ready to buy, what is your plant capacity?
>
>--
>Peter K1PO
>Indialantic By-the-Sea, FL
>
\

Depends on when you need them, and pricing.

73,
Chip N1IR

4041. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 18:16:42 UTC
From: dan <danlx@execpc.com>
Message-ID: <3df0e93a$0$1432$272ea4a1@news.execpc.com>
Source record: 129780

On 06 Dec 2002 17:00:43 GMT, tdonaly@aol.com (Tdonaly) wrote:

>>
>>Arrow146 wrote:
>>
>>> << As someone said, where anyone is likely to be packing heat
>>> people are *very* polite to each other. >>
>>>
>>> If the Law required every Vehicle to contain a loaded firearm, would people
>>> drive different ?
>>> they're certainly
>>>
>>
>>Maybe a more realistic question would be "where any vehicle may contain a
>>firearm.....". Actually my experience with Texas drivers is that they are
>>more courteous that most. The almost have to be, the traffic is awful in the
>>cities. If they weren't courteous one might sit for hours waiting to pull
>>into
>>traffic. As it is people routinely yield.
>>
>> I have yet to see any place that has concealed carry law to have a problem
>>with it. It just doesn't seem to happen. Most people have sufficient common
>>sense, and with the "filters" in place to keep unstable people and crooks
>>from
>>getting the permits, the laws just don't cause problems.
>>
>
>This thread is off topic and should be continued on another newsgroup if it's
>continued at all. If people want to believe that a hot pistol next to their
>skin
>will preserve their lives, that's fine. Hopefully, they'll never find out any
>different. The other myth, that allowing everyone to carry a concealed weapon
>will make society safer is proved to be a lie every day in the poorer sections
>of
>large cities where there are lots of concealed weapons and also lots of
>killings.
>My own opinion is that gun laws won't decrease the murder rate much. In
>China, people have found they can kill each other very efficiently with
>dynamite and rat poison. However, the religious assumptions of some
>groups, that universal gun ownership will decrease crime and safeguard
>civil liberties are just that: dogma without any basis in fact.
>73,
>Tom Donaly, KA6RUH
And the drivel you post is different how? Ya, sure it is.

Dan
N9JBF

I've rambled enough, back to the rocking chair. ZZZZZZZZZ
Remove left x for e-mail reply.

4042. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 18:30:49 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <hmo1vuoa0ja5247f2e3j6sdl32v1snipn2@4ax.com>
Source record: 129781

On Fri, 6 Dec 2002 10:47:42 -0600, "Richard Fry" <rfry@adams.net>
wrote:

|RE: Other (deep) threads here on this topic
|
|Suggest that the list below outlines the main factors determining the ratio
|of forward and reflected power in any RF tx+antenna system.
|
|A. The net, operating source impedance of the transmitter

Let's pause here for a moment.

With a lossless line, the ratio of forward to reflected power is
uniquely determined by the mismatch between the line Zo and the load
Z. If the line has loss the ratio will vary, increasing with increased
distance from the load, however; the source impedance has nothing to
do with it.

|B. The Zo of the transmission line to the antenna
|C. The impedance match of the antenna to the transmission line
|D. The attenuation of the transmission line at the operating frequency
|E. The electrical length of the transmission line (i.e., its exact number
|of wavelengths)
|
|Items D and E usually have little affect in HF amateur radio situations, but
|are important at VHF and above.
|
|Two theoretical scenarios for an FM/TV broadcast station (my background)...
|
|1. If item B = item C, then whatever transmitter power that is injected
|into the sending end of the transmission line surviving its loss is
|radiated. Power reflected from the antenna back into the line is zero, and
|the VSWR on the line is infinitely low. Items A and E are irrelevant for
|this consideration.

A always is.

|
|2. If item B does NOT equal item C, then the antenna will reflect power
|back to the source. Standing waves will occur on the transmission line.

Correct.
|
| a. If item A = item B, then the reflected power is totally absorbed by
|the transmitter.

Correct.
|
| b. If item A does NOT equal item B, then the reflected power from the
|antenna NOT absorbed by the transmitter will mix with the forward power
|being generated at that time by the transmitter. Therefore the net output
|power of the tx at that time will depend on the magnitudes and phases of the
|two (forward) waveforms. The phase of the re-reflected component at the tx
|will be largely a function of the electrical length of the transmission line
|to the antenna; the magnitude will be largely a function of the impedance
|matches at both ends of the line, and line loss.

Which is a complicated way of saying that with a given load Z, the
load on the transmitter varies with line length. Thus, without
retuning, the transmitter output may vary as the line length changes.

But none of this affects the *ratio* of forward to reflected power.

|
|Item 2b above is the (almost) universal practical case. Broadcast
|transmitter sources can have a return loss varying from <1dB for some tube
|amplifiers to ~20dB for some solid-state PAs.
|
|Hopefully this adds something useful to the posts on this topic.
|
|Richard Fry, CPBE
|

4043. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 18:54:06 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <ufKcnRj7FehSbG2gXTWcqg@comcast.com>
Source record: 129782

Richard,

Scan down to 11/16/2002 and pick Reflected Power. You will find everything
you never wanted to know about reflected power.
Tam/WB2TT
"Richard Fry" <rfry@adams.net> wrote in message
news:Kw4I9.20896$5P3.1193649@newsfeed.slurp.net...
> RE: Other (deep) threads here on this topic
>
> Suggest that the list below outlines the main factors determining the
ratio
> of forward and reflected power in any RF tx+antenna system.
>
> A. The net, operating source impedance of the transmitter
> B. The Zo of the transmission line to the antenna
> C. The impedance match of the antenna to the transmission line
> D. The attenuation of the transmission line at the operating frequency
> E. The electrical length of the transmission line (i.e., its exact number
> of wavelengths)
>
> Items D and E usually have little affect in HF amateur radio situations,
but
> are important at VHF and above.
>
> Two theoretical scenarios for an FM/TV broadcast station (my
background)...
>
> 1. If item B = item C, then whatever transmitter power that is injected
> into the sending end of the transmission line surviving its loss is
> radiated. Power reflected from the antenna back into the line is zero,
and
> the VSWR on the line is infinitely low. Items A and E are irrelevant for
> this consideration.
>
> 2. If item B does NOT equal item C, then the antenna will reflect power
> back to the source. Standing waves will occur on the transmission line.
>
> a. If item A = item B, then the reflected power is totally absorbed by
> the transmitter.
>
> b. If item A does NOT equal item B, then the reflected power from the
> antenna NOT absorbed by the transmitter will mix with the forward power
> being generated at that time by the transmitter. Therefore the net output
> power of the tx at that time will depend on the magnitudes and phases of

the
> two (forward) waveforms. The phase of the re-reflected component at the
tx
> will be largely a function of the electrical length of the transmission
line
> to the antenna; the magnitude will be largely a function of the impedance
> matches at both ends of the line, and line loss.
>
> Item 2b above is the (almost) universal practical case. Broadcast
> transmitter sources can have a return loss varying from <1dB for some tube
> amplifiers to ~20dB for some solid-state PAs.
>
> Hopefully this adds something useful to the posts on this topic.
>
> Richard Fry, CPBE
>
>

4044. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 19:52:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv200436md2sd6@corp.supernews.com>
Source record: 129783

Have you read the posting I've made several times now, and included in my "food for thought" essays (ftp://eznec.com/pub/food_for_thought/), where I show a line with 100 watts forward power, 100 watts reverse power, and *no* dissipation in the transmitter's source resistor, even with a perfect match between the transmitter and the antenna? Any statement about the reverse power being absorbed or dissipated by the source resistance has got to be able to explain this. Please show how that example is explained by your statement (a).

Roy Lewallen, W7EL

Richard Fry wrote:
> RE: Other (deep) threads here on this topic
>
> Suggest that the list below outlines the main factors determining the ratio
> of forward and reflected power in any RF tx+antenna system.
>
> A. The net, operating source impedance of the transmitter
> B. The Zo of the transmission line to the antenna
> C. The impedance match of the antenna to the transmission line
> D. The attenuation of the transmission line at the operating frequency
> E. The electrical length of the transmission line (i.e., its exact number
> of wavelengths)

> . . .

> a. If item A = item B, then the reflected power is totally absorbed by
> the transmitter.

> . . .

4045. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 19:57:22 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF10122.2040504@ieee.org>
Source record: 129784
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Peter O. Brackett wrote:
> What? No more *reflected power* sloshing back and forth longitudinally
> *along* the line between the ends, just pure *stored energy* sloshing back
> and forth transversally *across* the line between the distributed
> capacitance and inductance of the line, like in a tank circuit.

Peter, you've got the energy in the wave confused with the carriers of the wave. Do water molecules move along with the ocean waves? No, but the energy in the ocean wave rides the water molecules sometimes from coast to coast. The water doesn't slosh back and forth but the waves travel back and forth. The water travels primarily up and down. Have you never overlooked a beach where the big waves were coming in and the small waves were going out transparent to each other? In a length of transmission line with constant Z0, the forward wave is transparent to the reflected wave.

It is impossible for forward and reflected waves to affect each other unless they encounter an impedance discontinuity where reflections and/or interference occurs. The energy in the wave crashing on the beach is being carried by water molecules that were there close to the beach all the time. Something just gave those molecules enough energy to retreat from your ankle level and then crash on your head.

If you are saying the electron carriers don't slosh back and forth, I would tend to agree with you. Electrons certainly travel much, much slower than the speed of light wave energy being carried by the electrons.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4046. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 19:59:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv20dlg6buhbb3@corp.supernews.com>
Source record: 129785

Wes, how do you resolve this with the example I've posted several times now where an open circuited line has 100 watts of forward power, 100 watts of reverse power, and no dissipation in the source resistance?

I also posted an example yesterday where a 100 watt transmitter feeds a 50 ohm load through a half wavelength of 450 ohm line, resulting in 278 watts forward and 178 watts reverse on the line. Yet the source dissipation is exactly the same if you replace the 450 ohm line with a 50 ohm line, with zero reflected power, or a line of any other impedance.

In neither of these cases is the reflected power absorbed by the load. So is it only absorbed by the load sometimes and not always? If only sometimes, what are the necessary conditions?

Roy Lewallen, W7EL

Wes Stewart wrote:
> On Fri, 6 Dec 2002 10:47:42 -0600, "Richard Fry" <rfry@adams.net>
> wrote:

> . . .
> |
> | a. If item A = item B, then the reflected power is totally absorbed by
> |the transmitter.
>
> Correct.
>. . .

4047. Re: Antenna switch

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 20:03:51 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <kwHxPRveTjM=MeI=NnxH4LLHjKXM@4ax.com>
Source record: 129787

Michalkun <no.spam@nospam.com> wrote:

>Hmm I'm not sure how a printer switch would work with antennas and what
>would it it's signal loss. I thinking of a device which is connected to
>the computer by printer cable and which has inputs for different antennas
>on one side and on the other side a single output to the radio.

All the antenna switches I've seen -- from Alpha Delta and others -- are controlled by a manual switch. And because they are rated for high power, that's the reason for their higher cost.

You might check some of the military surplus dealers, but they usually charge an arm and a leg for anything good...

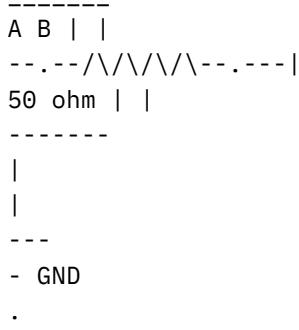
Or, maybe you can build something of your own...

Bob
k5qwg
>
>
>Bob Miller <bxmillerSpamNot@texas.net> wrote in
>news:AZfvPWuqWAF8S1IwIiQwXXaAw9H1@4ax.com:

4048. Characterizing a commercial trap

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 20:05:41 UTC
From: nat.gurumoorthy@ubicom.com
Message-ID: <41325e56.0212061205.77307fca@posting.google.com>
Source record: 129786

I would like to characterize a commercial trap. Would the
following circuit work. A sine wave generator is hooked
up between A and Gnd. I use a 3 channel scope to monitor
Voltage between A-B B-GND and A-GND. The voltage drop
across the the 50 ohm will give me the current. Voltage
drop across the trap divided by the current gives me
|Z|. I can look at the phase shift to know if it is
Inductive or Cpacitive.
Questions: 1) Would this work?
2) Is there a simpler way to do it?
3) Are there any limitations to this method?
4) What are the possible error sources
to watch out for?



Regards
Nat AB6SJ

4049. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 20:17:20 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asr0kg$o32$1@knossos.btinternet.com>
Source record: 129788

> > Suggest that the list below outlines the main factors determining the
ratio
> > of forward and reflected power in any RF tx+antenna system.
> >
> > A. The net, operating source impedance of the transmitter.

==========

Is this a printing's error ?

4050. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 20:31:59 UTC
From: Eric Oyen - N7ZZT <eric.oyen@cox.net>
Message-ID: <pan.2002.12.06.13.33.10.737.10354@cox.net>
Source record: 129789

hell0 OM,
you know most of the folks over at the "fractenna" shop appear to be
nothing more than glorified technicians to me. They spout big words, but
thats all.

Hell, I've yet to see nathan cohen or chip or any of the others published
in the IEEE Journal. Until that happens, I'm not likely to believe
anything they have to say on "fractal antennas".

otherwise, the debate is a lively one and I look forward to reading up on
it in future posts.

DE N7ZZT (Eric Oyen)
phoenix, arizona

In article <3DEF647B.2050500@telusplanet.net>, "Earth Wolf" <"Earth
Wolf"@telusplanet.net> wrote:

> Ad hominem attacks such as this are usually a clear indication of a
> pseudo-scientist or crackpot at work.
>
> Who or what Peter works for is irrelevant to the strength/weakness of
> his arguments, and equally irrelevant to the strength/weakness of yours.
>

--
the difference between intelligence and stupidity is that intelligence
has its limits.

4051. Re: Disruptive Technologies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 20:52:32 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <asr2m8$di0$1@slb2.atl.mindspring.net>
Source record: 129790

No you don't understand what I asked.

I meant, what is your maximum plant capacity, given that I can meet your
price and
the deliveries were to start immediately. [January 1 would be fine.]

How many can you produce per week/month?

Would they be "drop in" replacements for the Fuji units?

--
Peter K1PO
Indialantic By-the-Sea, FL

"Fractenna" <fractenna@aol.com> wrote in message
news:20021206130151.10320.00008698@mb-mv.aol.com...
> >
> >Chip:
> >
> >[snip]
> >"> I have some really great fractalized inverted F's there Peter. Ready
to
> >buy in
> >> quantity?
> >>
> >> 73,
> >> Chip N1IR
> >[snip]
> >
> >Yes, I'm ready to buy, what is your plant capacity?
> >
> >--
> >Peter K1PO
> >Indialantic By-the-Sea, FL
> >
> \
>
> Depends on when you need them, and pricing.
>
> 73,
> Chip N1IR

4052. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 21:45:13 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <uv26jg7i0ert94@corp.supernews.com>
Source record: 129791

```
the site indicates that permission is required?
is there another site?
tnx
hank
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:uv200436md2sd6@corp.supernews.com...
> Have you read the posting I've made several times now, and included in
> my "food for thought" essays (ftp://eznec.com/pub/food_for_thought/),
> where I show a line with 100 watts forward power, 100 watts reverse
> power, and *no* dissipation in the transmitter's source resistor, even
> with a perfect match between the transmitter and the antenna? Any
> statement about the reverse power being absorbed or dissipated by the
> source resistance has got to be able to explain this. Please show how
> that example is explained by your statement (a).
>
> Roy Lewallen, W7EL
>
> Richard Fry wrote:
> > RE: Other (deep) threads here on this topic
> >
> > Suggest that the list below outlines the main factors determining the
ratio
> > of forward and reflected power in any RF tx+antenna system.
> >
> > A. The net, operating source impedance of the transmitter
> > B. The Zo of the transmission line to the antenna
> > C. The impedance match of the antenna to the transmission line
> > D. The attenuation of the transmission line at the operating frequency
> > E. The electrical length of the transmission line (i.e., its exact
number
> > of wavelengths)
>
> > . . .
>
> > a. If item A = item B, then the reflected power is totally absorbed
by
> > the transmitter.
>
> > . . .
>
```

4053. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 22:07:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv2be3msmmbn85@corp.supernews.com>
Source record: 129793

Hm, is anyone else encountering a problem? I just clicked the link in the posting below, and went there with no problem. No permission is required, and if there's some problem with the site I'd like to know so I can fix it.

You might try going to http://eznec.com, and clicking the "FTP Site" link near the bottom. That'll take you to the /pub directory, where you should see food_for_thought/.

Roy Lewallen, W7EL

Henry Kolesnik wrote:
> the site indicates that permission is required?
> is there another site?
> tnx
> hank
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:uv200436md2sd6@corp.supernews.com...
>
>>Have you read the posting I've made several times now, and included in
>>my "food for thought" essays (ftp://eznec.com/pub/food_for_thought/),
>>where I show a line with 100 watts forward power, 100 watts reverse
>>power, and *no* dissipation in the transmitter's source resistor, even
>>with a perfect match between the transmitter and the antenna? Any
>>statement about the reverse power being absorbed or dissipated by the
>>source resistance has got to be able to explain this. Please show how
>>that example is explained by your statement (a).
>>
>>Roy Lewallen, W7EL
>>
>>Richard Fry wrote:
>>
>>>RE: Other (deep) threads here on this topic
>>>
>>>Suggest that the list below outlines the main factors determining the
>>
> ratio
>
>>>of forward and reflected power in any RF tx+antenna system.
>>>
>>>A. The net, operating source impedance of the transmitter
>>>B. The Zo of the transmission line to the antenna
>>>C. The impedance match of the antenna to the transmission line
>>>D. The attenuation of the transmission line at the operating frequency
>>>E. The electrical length of the transmission line (i.e., its exact

>>
> number
>
>>>of wavelengths)
>>
>>>. . .
>>
>>> a. If item A = item B, then the reflected power is totally absorbed
>>
> by
>
>>>the transmitter.
>>
>> > . . .
>>
>
>
>

4054. Re: Disruptive Technologies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 22:33:24 UTC
From: fractenna@aol.com
Message-ID: <20021206173324.24667.00000508@mb-ch.aol.com>
Source record: 129792

>
>No you don't understand what I asked.
>
>I meant, what is your maximum plant capacity, given that I can meet your
>price and
>the deliveries were to start immediately. [January 1 would be fine.]
>
>How many can you produce per week/month?
>
>Would they be "drop in" replacements for the Fuji units?
>
>

Three weeks set up; 4-6 weeks delivery. Quantities 100,000 per month.

Somewhat slower for larger volume.

73,
Chip N1IR

4055. Re: Characterizing a commercial trap

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 22:34:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv2d0i98ncre76@corp.supernews.com>
Source record: 129798

That test should give you reasonably good results, provided that A-B isn't a whole lot smaller than A or B. Even good scopes don't have very good common mode rejection in A-B mode, especially at high frequencies, unless you're using a scope or plugin specifically designed for differential measurements. So you'll probably need to increase the value of the series resistor quite a bit. Try with a few values and see if you get about the same results for Z.

Roy Lewallen, W7EL

Nat Gurumoorthy wrote:
> I would like to characterize a commercial trap. Would the
> following circuit work. A sine wave generator is hooked
> up between A and Gnd. I use a 3 channel scope to monitor
> Voltage between A-B B-GND and A-GND. The voltage drop
> across the the 50 ohm will give me the current. Voltage
> drop across the trap divided by the current gives me
> |Z|. I can look at the phase shift to know if it is
> Inductive or Cpacitive.
> Questions: 1) Would this work?
> 2) Is there a simpler way to do it?
> 3) Are there any limitations to this method?
> 4) What are the possible error sources
> to watch out for?
>
> _______
> A B | |
> --.--/\/\/\/\--.---| Trap|
> 50 ohm | |
> -------
> |
> |
> ---
> - GND
> .
>
> Regards
> Nat AB6SJ

4056. Re: Aluminum in San Diego area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 23:15:12 UTC
From: Stahr <w6nycthetrash@earthlink.net>
Message-ID: <4caI9.8328$kz2.854450@newsread1.prod.itd.earthlink.net>
Source record: 129794

Much thanks to Richard KF6KE, he had a line on aluminum in San Diego.

If you are looking for some, call:

Handy Metalmart
1540 McKinley Ave
National City, CA
619-474-3379

The stuff I got was 3/4 inch OD with 1/8 inch wall. Kinda' heavy for
antenna work, but OK for a single 10m dipole.

Best 73 de:
Dennis Stahr - W6NYC

http://www.qsl.net/w6nyc/
Take out "the trash" when return emailing

"Stahr" <w6nycthetrash@earthlink.net> wrote in message
news:UMKG9.408$hM3.69800@newsread2.prod.itd.earthlink.net...
> Could somebody tell me where, in the San Diego area, I can find some
> aluminum to build a simple 10m dipole?
>
> Thank you
> --
>
> 73 de:
> Dennis Stahr - W6NYC
>
> http://www.qsl.net/w6nyc/
> Take out "the trash" when return emailing
>
>
>
>

4057. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 23:20:19 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <3DF130B3.D8AF8ED3@uci.edu>
Source record: 129797

OC_CAM's Razor wrote:
>
> Peter O. Brackett wrote:
> > What? No more *reflected power* sloshing back and forth longitudinally
> > *along* the line between the ends, just pure *stored energy* sloshing back
> > and forth transversally *across* the line between the distributed
> > capacitance and inductance of the line, like in a tank circuit.

> Peter, you've got the energy in the wave confused with the carriers of
> the wave.

I don't think he has that confused.

> Do water molecules move along with the ocean waves? No, but
> the energy in the ocean wave rides the water molecules sometimes from
> coast to coast. The water doesn't slosh back and forth but the waves
> travel back and forth. The water travels primarily up and down. Have you
> never overlooked a beach where the big waves were coming in and the small
> waves were going out transparent to each other? In a length of transmission
> line with constant Z0, the forward wave is transparent to the reflected wave.

> It is impossible for forward and reflected waves to affect each other
> unless they encounter an impedance discontinuity where reflections and/or
> interference occurs. The energy in the wave crashing on the beach is
> being carried by water molecules that were there close to the beach all
> the time. Something just gave those molecules enough energy to retreat
> from your ankle level and then crash on your head.

Excellent.

> If you are saying the electron carriers don't slosh back and forth, I
> would tend to agree with you. Electrons certainly travel much, much
> slower than the speed of light wave energy being carried by the electrons.

He might also have been saying that power doesn't slosh back and forth.
;-)

jk

4058. Balun question, please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 23:20:27 UTC
From: Stahr <w6nycthetrash@earthlink.net>
Message-ID: <%gaI9.8335$kz2.855117@newsread1.prod.itd.earthlink.net>
Source record: 129796

Got my aluminum for the 10m dipole, also got some RG8x.

I'm wondering if I should make a choke balun by winding about 7 turns of the coax near the antenna?

I read some on the web that say you shouldn't do that with RG8x, especially if you will be running more than 100w. I hope to do a max of 400w, and am now concerned about coiling the coax.

Do I need the balun for a single band 10m dipole, or should I just forget the balun?

Help is always appreciated...

Bless & 73 de:
Dennis Stahr - W6NYC

http://www.qsl.net/w6nyc/
Take out "the trash" when return emailing

4059. Re: OT..TV antenna advice

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 23:21:04 UTC
From: gmz79@aol.comnospam
Message-ID: <20021206182104.24960.00009742@mb-mp.aol.com>
Source record: 129795

Best antenna you can afford, get it as high as you can, mast mounted amp close
to antenna as possible,good quality low loss feedline, or satellite and the
sports channels, they can be addicting
however, particularly speedvision if your a race fan.
Greg Z
to thine own sound be true

4060. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-06 23:36:10 UTC
From: k1bqt@aol.com
Message-ID: <20021206183610.02917.00000275@mb-cq.aol.com>
Source record: 129799

>...so far I haven't seen anyone yet that I could tell was armed<

In most jurisdictions, any person permitted to carry a firearm may be charged with public brandishment, criminal threatening, or even worse--should it become obvious to his (her) fellow citizens that he (she) is carrying. To walk as an armed citizen among fellow members of the public, one has a civil and moral obligation to keep the firearm concealed at all times--and a to know the law well--especially as it applies to defensive vs. offensive acts. In the US, odds are you'll never see anyone "carrying". Unlike those murerous cellphone thugs clogging our sidewalks and highways!

Rick K1BQT

4061. Re: Balun question, please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 00:10:46 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF13C86.61A69C89@cwis.net>
Source record: 129800

Stahr,
Winding a choke with RG-8x shouldn't be a problem, just
don't wind it too tight. If you force it into too small of
a diameter coil it could cause 'migration' (center conductor
moves toward the shield). A fairly 'loose' coil should work
fine.
'Doc

4062. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 00:25:50 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <4662vukt36fs51p3a7r3oqftdru18d3k4v@4ax.com>
Source record: 129801

On Fri, 06 Dec 2002 11:59:48 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

|Wes, how do you resolve this with the example I've posted several times
|now where an open circuited line has 100 watts of forward power, 100
|watts of reverse power, and no dissipation in the source resistance?
|
|I also posted an example yesterday where a 100 watt transmitter feeds a
|50 ohm load through a half wavelength of 450 ohm line, resulting in 278
|watts forward and 178 watts reverse on the line. Yet the source
|dissipation is exactly the same if you replace the 450 ohm line with a
|50 ohm line, with zero reflected power, or a line of any other impedance.
|
|In neither of these cases is the reflected power absorbed by the load.
|So is it only absorbed by the load sometimes and not always? If only
|sometimes, what are the necessary conditions?

A = B

Where:

A is a generator with a good source match (Zg). For example Richard
Fry's solid-state amplifier with 20 dB return loss. In transmitters
this is often accomplished by using quadrature couplers with the
fourth port port terminated in a matched load, or at microwave,
isolators (terminated circulators). Reflected power is "dumped" into
this load. (But you know that <g>)

B is a transmission line with Zo equal to Zg.

I can see where this is not the usual ham radio case and the source Z
can be different from the Z looking back into the source. It is
however, what I was envisioning Richard Fry meant. (Comes from too
many years in a labortory where good source match is a requirement for
making good measurements of VSWR.)

Wes

4063. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 00:51:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv2l1948tlqu49@corp.supernews.com>
Source record: 129803

Ok, here's a case for consideration.

A = a generator consisting of a Thevenin source: a voltage source with a 50 ohm series resistor. This is a good model of a laboratory signal generator of the type used for HF measurements. I'll make the open circuit voltage 141.4 volts RMS, which is the voltage of the voltage source.

B = a lossless 50 ohm half wavelength transmission line.

This is, wouldn't you agree, a situation where there's a perfect match at the input to the cable?

First let's terminate the line with a 50 ohm load. The load will dissipate 100 watts. The reverse power on the line is zero. The dissipation in the source resistor is 100 watts. So here we have a situation where there's no reverse power, and the source resistor is dissipating 100 watts. The voltage source is producing the 200 watts being dissipated by the two resistors.

Now open circuit the line. We find that the forward power is still 100 watts. The reverse power is 100 watts. There is no load to dissipate power. The source is delivering no power. The source sees an open circuit. The dissipation in the source resistor is zero.

Now, here's a case where clearly there's a perfect match between the source and the transmission line. There's 100 watts of reverse power on the line. Yet the source resistor is dissipating nothing. At least for the simplest case I can think of, a Thevenin source driving a matched line, the reverse power clearly isn't being absorbed or dissipated by the source resistor. In fact, when the reverse power went from zero to 100 watts, the source resistor dissipation went from 100 watts to zero.

If you put an isolator between the source and the line, it's a somewhat different story. Then, the source sees 50 ohms even when the line is opened at the far end. Consequently, the voltage source continues to produce 200 watts of power. 100 watts is dissipated in the source resistor and 100 in the isolator termination. I suppose it would be fun for some folks to argue whether the 100 watts dissipated by the source resistor is reverse power, whether the 100 watts dissipated by the isolator termination is the reverse power, or whether both are simply the the power being produced by the source. In fact, when you disconnect the line altogether, there's no longer any reverse power. And the dissipation in the source resistor stays at 100 watts and the isolator resistor at 100 watts. This makes it difficult to justify the need for reverse power to produce dissipation in the isolator termination. A simple explanation based entirely on load resistance will suffice, and

it'll accurately predict the isolator termination dissipation regardless
of line impedance or the amount of reverse power on the line. For
example, if we connect the isolator to a 450 ohm half wavelength line
terminated in 50 ohms, we'll have 278 watts forward and 178 reverse on
the line, yet the isolator termination resistor will have zero
dissipation. This is easily explained if you entirely ignore the reverse
power and simply look at how the termination dissipation varies with
load impedance. That holds true for *any* kind of steady state source,
including an isolator or Thevenin source.

The notion that reverse power is absorbed or dissipated by the load is a
myth, based on misunderstanding of the phenomena involved. It's very
easy to provide any number of examples to show it's simply not true.

Roy Lewallen, W7EL

Wes Stewart wrote:
> On Fri, 06 Dec 2002 11:59:48 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> |Wes, how do you resolve this with the example I've posted several times
> |now where an open circuited line has 100 watts of forward power, 100
> |watts of reverse power, and no dissipation in the source resistance?
> |
> |I also posted an example yesterday where a 100 watt transmitter feeds a
> |50 ohm load through a half wavelength of 450 ohm line, resulting in 278
> |watts forward and 178 watts reverse on the line. Yet the source
> |dissipation is exactly the same if you replace the 450 ohm line with a
> |50 ohm line, with zero reflected power, or a line of any other impedance.
> |
> |In neither of these cases is the reflected power absorbed by the load.
> |So is it only absorbed by the load sometimes and not always? If only
> |sometimes, what are the necessary conditions?
>
> A = B
>
> Where:
>
> A is a generator with a good source match (Zg). For example Richard
> Fry's solid-state amplifier with 20 dB return loss. In transmitters
> this is often accomplished by using quadrature couplers with the
> fourth port port terminated in a matched load, or at microwave,
> isolators (terminated circulators). Reflected power is "dumped" into
> this load. (But you know that <g>)
>
> B is a transmission line with Zo equal to Zg.
>
> I can see where this is not the usual ham radio case and the source Z
> can be different from the Z looking back into the source. It is
> however, what I was envisioning Richard Fry meant. (Comes from too
> many years in a labortory where good source match is a requirement for

> making good measurements of VSWR.)
>
>
> Wes

4064. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 01:35:59 UTC
From: richardharrison@webtv.net
Message-ID: <12608-3DF1507F-101@storefull-2316.public.lawson.webtv.net>
Source record: 129802

Richard Fry, CPBE wrote:
"If item A (transmitter source impedance) = item B (transmission line Zo), then the reflection is totally absorbed by the transmitter."

Jump start a down car battery from a good battery. There is little to no chance charge will flow from the lower charged battery into the battery with the higher charge.

Try to stuff the reflected wave back into the transmitter and you face a similar problem.

Best regards, Richard Harrison, KB5WZI

4065. hello

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 01:55:16 UTC
From: VA3ATD <a.duffy@sympatico.ca>
Message-ID: <3DF15504.5030600@sympatico.ca>
Source record: 129804

Hello out there

I haven't heard form everyone for a couple of weeks and I am wondering
if everything is all right. I trust every one and Aunty are well.

ttfn
Tony

--
73, Tony
VA3ATD
London, Ontario
"Imagination and Ingenuity are the only limits" AD

4066. Re: Opinions on TH7-DXX vs. Cushcraft X7

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 02:06:50 UTC
From: Charter News Server <charternewsserver@charternewsserver.kom>
Message-ID: <uv2lvssj8fqvdd@corp.supernews.com>
Source record: 129805

Force12, the ONLY way to go....

"Ramon" <kp4tr@hotmail.NOSPAM.com> wrote in message
news:F4CG9.263241$fa.5285501@twister.tampabay.rr.com...
> You can check out the reviews at www.eham.net/reviews. I installed a
> Cushcraft X7 about 2 months ago and I am extremely satisfied with it's
> performance. It's installed at 50 feet. It can even be used in 12M and 17M
> with a tuner.
>
> I know nothing of the TH7-DXX.
>
> 73!
>
>
> "Hobbes" <hobbestg@voicenet.com> wrote in message
> news:3DEA7746.5B8@voicenet.com...
> > Dear Group,
> >
> > I will be putting up a beam at my new QTH shortly. Before I moved, for a
> > number of years I used a TH6-DXX at 55 ft. and was satisfied with its
> > performance. I am trying to decide if I should go with a new TH7-DXX,
> > which would be very similar to my old beam, or one of the Cushcraft X7
> > beams, which I know very little about. Either antenna will again be
> > installed at 55 ft. Any opinions on which one you would go with?
> > Thanks and 73
> >
> > Ed K2ZE
> >
>
>

4067. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 02:35:52 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <68dI9.9702$mj2.1575413@news20.bellglobal.com>
Source record: 129806

"Richard Harrison"
> Jump start a down car battery from a good battery.
> There is little to no chance charge will flow from the
> lower charged battery into the battery with the higher
> charge. Try to stuff the reflected wave back into the
> transmitter and you face a similar problem.

Assume that the jumper cables are really, really long - so long that their electrical length is comparable to the period of a normal 'jump start' (say about 1 minute). They are also perfectly lossless.

Assume (please - just for a minute) that 'launching' the boost down the cable is sufficient effort (a very, very low-Z set of jumper cables) that it significantly discharges the first battery. Obviously a rather wimpy little battery (almost like a capacitor); fully charged but very low amp-hours.

Assume that the guy with the dead battery suddenly decides to leave, taking his dead battery with him and leaving his end of the jumper cables disconnected.

So there is a significant pulse of DC traveling down the cable heading towards an open circuit. Obviously it will reflect and head back up towards the now-discharged source battery.

Will any of the energy go back inside the battery ? Will the recently discharged battery gat a little boost from its own former glory ?

I've twisted your 'jump start' example back around to something closer to RF. Apologies.

Steady state analysis need not apply - this is a transient event.

Obviously, if the source battery wasn't extremely wimpy, then...
...it's difficult to toss a bucket of water into a broken watermain.

4068. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 02:42:49 UTC
From: richardharrison@webtv.net
Message-ID: <9475-3DF16029-139@storefull-2317.public.lawson.webtv.net>
Source record: 129808

Reg Edwards, G4FGQ wrote:
"---factors determining the ratio of forward and reflected power in any
RF tx + antenna system.
A. The net, operating source resistance of the transmitter."

"Is this a printing`s error?"

Must be.

Forward and reflected power RATIO, like SWR is affected only by the
mismatch between Zo and the load.

I have a Bird slide rule with an example:
"Set Reflected Power at Forward Power.
Example:
Pf = 5W
Pr = 1W
VSWR = 2.6
Return loss = 7.0 dB
Match Efficiency = 80%
Reflection Coefficient = 0.45"

Source impedance was not involved in any of the determinations above.
(The 5W was a given, as was the 1W.)

Best regards, Richard Harrison, KB5WZI

4069. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 02:57:03 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asro1ulg1@knossos.btinternet.com>
Source record: 129807

> A = a generator consisting of a Thevenin source:

==========

Wot is a Thevenin ? Does it matter ? We are only poor amateurs ? ;o)

4070. Re: a shortened BEAM ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 03:20:47 UTC
From: rckchp@comcast.net
Message-ID: <6dc33f40.0212061920.5ccd6cd6@posting.google.com>
Source record: 129809

Look here, an article about a homebrew "hexbeam" for 17 meters. It is definitely shorter than a full size 17 meter beam :

http://ireland.iol.ie/~bravo/ahexbeam.htm

4071. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 03:59:43 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF1806E.598DB49C@townsqr.com>
Source record: 129810

Richard Clark wrote:

> On Fri, 06 Dec 2002 04:46:58 GMT, Dick Carroll <dixie@townsqr.com>
> wrote:
>
> >
> >
> >Richard Clark wrote:
> >
> >> Given the high degree
> >> of arming in Texas,
> >
> >I dunno, Rich, I've spent a couple months in Texas this year and so far I
> >haven't seen anyone yet that I could tell was armed other than some cops.
> >Wonder where all the guns are? The "wild west" it isn't. You suppose those
> >people who are packing are actually doing sensible things with their hardware,
> >and normalcy actually reigns superior to some of the places where the owlhoots
> >know they have the upper hand?
> >
> >Dick
>
> Hi Dick,
>
> D'ya think all the killings were committed by bad manners?

Not at all, nearly all are committed by ex-convict previous offenders out on parole or otherwise set free by some bleeding heart. Most are multiple offenders who should be on ice permanently. Instead they're freed repeatedly to prey on the public, while citizens who insist on their right to self protection are assigned the blame!

OBTW, did you know that the US Supreme Court once ruled that the police have no duty to protect individuals, rather only the public as a whole? That ruling came after a case where a woman had been threatened and pleaded for police protection which was denied. She was killed, and her heirs sued the police, with that ruling resulting. Remember what the police did in the LA riots? They split, knowing they were outnumbered big time. It was "every man for himself", as it will be next time.

Not that it matters, we couldn't afford to pay the taxes required to keep us all in police protection. I worked with the police for 30 years and I can tell you that the main job of police is to deal with the aftermath. There are far too few of them to prevent much crime against individuals, it almost never happens. Their primary functions are to investigate and try to bring the perp to justice. Sorry about the victim, nothing we can do for him now.

Next someone will say "If we didn't have so many guns then the criminals couldn't get them either", making it necessary to remind seemingly sensible people that when we can't stop the importation of many tons of illegal substances our chances of stopping a black market in weaponry destined for the same criminal destination is slim to none. We haven't even began to address the sieve-like borders which allow all those millions of illegal aliens of every stripe virtually free access to our soil. I suppose since we're doing so good a job of keeping them out we can also keep them from bringing in firearms as they come, for sale illicitly as a ready source of cash. Right. Since the guns will be illegal the illegals won't bring them.
Got it. We also haven't addressed the tens of thousands of shipping containers coming into the country each and every day, UNINSPECTED. *One* of each ten thousand is actually opened and checked. Of course we can depend on no contraband coming inside those. Right. And just the other day our President signed an order allowing Mexican trucks to freely travel US highways, coast to coast. You suppose there's no problem there either? You really think any serious percentage will ever be checked on entry? US customs -the grunts on the line- will laugh at the very idea. They're much more overwhelmed than the police.

Anyone who thinks guns in the hands of criminals can be stopped by eliminating them from private ownership is a wildeyed dreamer, and unfortunately there are a lot of them around. All that can happen is for the average law abiding citizen to be branded an outlaw for owning his own protection - if we allow the clueless liberals to have their way with us. Does anyone REALLY believe that's the American way? Not in the America I live in. That means that some subversive element wants a change that isn't in the best interest of the individual citizen, under the guise of helping "protect" him. That sort of protection I don't need. My own is much more effective, in every way.

4072. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 04:07:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv30ga4fn6f2af@corp.supernews.com>
Source record: 129814
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

No, after the initial few nanoseconds, his radio produces 90 watts and
the load receives 90 watts.

Roy Lewallen, W7EL

Dee D. Flint wrote:
> "I Smac" <Smac61yourpanties@hotmail.com> wrote in message
> news:3gednbJtVcGMtG2gXTWcoQ@comcast.com...
>
>>"OC_CAM's Razor" wrote...
>>
>>>Your SWR is 1.9:1. Your load is accepting 90% of the incident power
>>>and reflecting 10% of the incident power. The 10W is energy generated
>>>by the source but not accepted by the load, i.e. the generator has
>>>generated more power than has been accepted by the load. Those
>>
> conditions
>
>>>happen during the transient buildup to steady state.
>>
>>So your saying that my radio produces 100W
>>and my load dissipates 90W ?
>>
>>Smac
>
>
> Not quite. Your radio produces 100W but your load receives 90W.
>
> Dee Flint, N8UZE
>
>

4073. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 04:37:50 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF1895E.FB68A145@townsqr.com>
Source record: 129811

Tdonaly wrote:

The other myth, that allowing everyone to carry a concealed weapon

> will make society safer is proved to be a lie every day in the poorer sections
> of
> large cities where there are lots of concealed weapons and also lots of
> killings.

Tom, looks like that pretty well describes your serious misapprehension of this entire subject. In those areas the people carrying all the concealed weapons are the very people who would be- and now are- legally banned from even owning or possessing them, much less carrying them concealed. Most are now armed illegally since there are almost universally laws prohibiting gun ownership by felons, as well as for possessing firearms with intent to use them to violate the law. Those armed persons you note pay no attention to laws or they wouldn't have guns now.

Those are the people - intercity minorities, helped by others who evidently believe as you do- who barely voted down the concealed carry referendum in my home state. They don't want law abiding citizens arming themselves, they want to keep that all for themselves! Ordinary citizens carrying concealed firearms would present a serious threat to their activities and livelihoods!

>
> My own opinion is that gun laws won't decrease the murder rate much.

That has been the basic experience where guns have been banned. In fact Statistics reveal the violent crime rate has virtually always risen. .

> , the religious assumptions of some
> groups, that universal gun ownership will decrease crime and safeguard
> civil liberties are just that: dogma without any basis in fact.

Again, universal gun ownership is not an objective, it's the RIGHT to it that is at stake. No one wants to live in a nation where everyone needs to arm himself for protection, that's way off the screen for almost everyone. We DO live in a nation where many need to, now. Should they be prohibited by law from protecting themselves, their families and property? I think not. And I know that despite everything, a great many people do quietly arm themselves for protection, and intend to do so in the future, whatever the law, feeling that their survival is primary. I feel fortunate that I don't need to include myself in that group, but I certainly side with their philosophy. In our free country surely everyone has a right to provide for his own personal protection.

I agree, that's more than enough on the subject. But it's not a simple one, as some think..

4074. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 04:57:09 UTC
From: richardharrison@webtv.net
Message-ID: <9476-3DF17FA5-45@storefull-2317.public.lawson.webtv.net>
Source record: 129815

Reg Edwards, G4FGQ wrote:
"Wot is a Thevenin?"

We could go to the books for the conditions of linearity etc required for validity, but in general, a Thevenin`s equivalent generator behaves as an open circuit voltage at its terminals which is delivered through a series internal impedance which is not limited to a resistor but may include a reactance. This internal impedance can be measured with all voltage sources shorted.

Magnitude of the impedance can usually be measured as the ratio of the open circuit voltage divided by the short circuit current.

Terman knows all and tells all in his 1955 opus starting on page 74. I probably haven`t read it in almost 50 years. I probably should have before responding, but I was lazy.

Best regards, Richard Harrison, KB5WZI

4075. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 05:43:46 UTC
From: tdonaly@aol.com
Message-ID: <20021207004346.27633.00005033@mb-mr.aol.com>
Source record: 129816

>
>Reg Edwards, G4FGQ wrote:
>"Wot is a Thevenin?"
>
>We could go to the books for the conditions of linearity etc required
>for validity, but in general, a Thevenin`s equivalent generator behaves
>as an open circuit voltage at its terminals which is delivered through a
>series internal impedance which is not limited to a resistor but may
>include a reactance. This internal impedance can be measured with all
>voltage sources shorted.
>
>Magnitude of the impedance can usually be measured as the ratio of the
>open circuit voltage divided by the short circuit current.
>
>Terman knows all and tells all in his 1955 opus starting on page 74. I
>probably haven`t read it in almost 50 years. I probably should have
>before responding, but I was lazy.
>
>Best regards, Richard Harrison, KB5WZI
>

Reg knows full well wot is a Thevenin.
Tom Donaly, KA6RUH

4076. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 05:48:37 UTC
From: Brenda Ann <brendad@shinbiro.com>
Message-ID: <ass0i1$70f$1@news1.kornet.net>
Source record: 129817
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

For those that don't seem to understand the concept...

Load = anything that is attached to your TX. Your antenna is (or should be) the PRIMARY load, but also a part of the total load are the coax (losses and VSWR), ground system, connectors, etc. All of these actually represent a fairly complex series/parallel load to the output of the TX.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:uv30ga4fn6f2af@corp.supernews.com...
> No, after the initial few nanoseconds, his radio produces 90 watts and
> the load receives 90 watts.
>
> Roy Lewallen, W7EL
>
> Dee D. Flint wrote:
> > "I Smac" <Smac61yourpanties@hotmail.com> wrote in message
> > news:3gednbJtVcGMtG2gXTWcoQ@comcast.com...
> > >
> >>"OC_CAM's Razor" wrote...
> >>
> >>>Your SWR is 1.9:1. Your load is accepting 90% of the incident power
> >>>and reflecting 10% of the incident power. The 10W is energy generated
> >>>by the source but not accepted by the load, i.e. the generator has
> >>>generated more power than has been accepted by the load. Those
> >>
> > > conditions
> > >
> >>>happen during the transient buildup to steady state.
> >>
> >>So your saying that my radio produces 100W
> >>and my load dissipates 90W ?
> >>
> >>Smac
> > >
> > >
> > > Not quite. Your radio produces 100W but your load receives 90W.
> > >
> > > Dee Flint, N8UZE
> > >
> > >
>

4077. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 05:51:57 UTC
From: "Dee D. Flint" <deehays@qix.net>
Message-ID: <10gl9.6549$4j5.3150661@newssvr28.news.prodigy.com>
Source record: 129812

For VHF, I would be concerned if it were this high at the middle of the band as it is apt to be higher at either or both ends of the band and that could start getting into an area of risk.

Dee Flint, N8UZE

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:28143-3DF027A5-26@storefull-2311.public.lawson.webtv.net...
> Dee Flint N8UZE wrote:
> "This is too much reflected power (10 watts out of 100 watts of forward
> power) and you can potentially damage your radio."
>
> I don`t know your radio, but I`ve seen and worked with 100`s of VHF
> radios and don`t know of any that would be uncomfortable with 10% of the
> incident power reflected. Check your spec. before you panic.
>
> Best regards, Richard Harrison, KB5WZI
>

4078. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 05:53:25 UTC
From: "Dee D. Flint" <deehays@qix.net>
Message-ID: <p1gl9.6551$4j5.3150774@newssvr28.news.prodigy.com>
Source record: 129813
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"I Smac" <Smac61yourpanties@hotmail.com> wrote in message
news:3gednbJtVcGMtG2gXTWcoQ@comcast.com...
>
> "OC_CAM's Razor" wrote...
> > Your SWR is 1.9:1. Your load is accepting 90% of the incident power
> > and reflecting 10% of the incident power. The 10W is energy generated
> > by the source but not accepted by the load, i.e. the generator has
> > generated more power than has been accepted by the load. Those
conditions
> > happen during the transient buildup to steady state.
>
> So your saying that my radio produces 100W
> and my load dissipates 90W ?
>
> Smac

Not quite. Your radio produces 100W but your load receives 90W.

Dee Flint, N8UZE

4079. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 06:14:23 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF191BF.9090307@ieee.org>
Source record: 129818

Richard Harrison wrote:
> Jump start a down car battery from a good battery. There is little to no
> chance charge will flow from the lower charged battery into the battery
> with the higher charge.
>
> Try to stuff the reflected wave back into the transmitter and you face a
> similar problem.

What would happen if two tsunamis going opposite directions met
in the middle of the ocean?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4080. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 06:19:02 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF192D6.6040903@ieee.org>
Source record: 129719

Reg Edwards wrote:
>>A = a generator consisting of a Thevenin source:
>
> Wot is a Thevenin ? Does it matter ? We are only poor amateurs ? ;o)

Isn't trying to figure out what goes on inside a Thevenin box against
the rules?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4081. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 06:22:03 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF1938B.5090509@ieee.org>
Source record: 129720

Dick Carroll wrote:
> Anyone who thinks guns in the hands of criminals can be stopped by eliminating
> them from private ownership is a wildeyed dreamer, ...

Witness England with a rapidly rising crime rate.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4082. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 06:28:18 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF19502.8080700@ieee.org>
Source record: 129721
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Dee D. Flint wrote:
> "I Smac" <Smac61yourpanties@hotmail.com> wrote in message
>>So your saying that my radio produces 100W
>>and my load dissipates 90W ?
>
> Not quite. Your radio produces 100W but your load receives 90W.

Under steady-state conditions with a lossless transmission line,
generated power = power to the load = forward power - reflected power.
90W = 90W = 100W - 10W
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4083. Re: Foward power question ARRRRGH

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 07:13:07 UTC
From: Bill M <"exray\\@n-o- .caribe.net>">
Message-ID: <uv37qvj78gjb92@corp.supernews.com>
Source record: 129722

Dee D. Flint wrote:
> For VHF, I would be concerned if it were this high at the middle of the band
> as it is apt to be higher at either or both ends of the band and that could
> start getting into an area of risk.
>
> Dee Flint, N8UZE

By the same token it is equally apt to go lower.
But that misses the whole point. Its not a question of reflected power re-entering the radio and causing problems. The output stage of your garden variety VHF solid state radio is working at a very low output impedance and by virtue of whatever output tuning circuitry it finds a 50 ohm load as the one to transform correctly back to the transistor...ie, the desireable current draw of the transistor is based on a 50-ohm load.
Stray from that and the collector current is going to be unhappy and bad things can happen...thats why they have the limiting circuitry and if thats working properly there shouldn't be any particular risk of damage. Its not the 'reflected power' thats the culprit...its the mismatch to the output circuit. Playing around with oddball speakers on a car stereo gives the same result for the same reason.

-BM

4084. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 07:25:36 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <fs43vugqefm7k1lmper1ob29g3efna80p1@4ax.com>
Source record: 129723

On Fri, 06 Dec 2002 16:51:33 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Ok, here's a case for consideration.
>
>A = a generator consisting of a Thevenin source: a voltage source with a
>50 ohm series resistor. This is a good model of a laboratory signal
>generator of the type used for HF measurements. I'll make the open
>circuit voltage 141.4 volts RMS, which is the voltage of the voltage source.
>
>B = a lossless 50 ohm half wavelength transmission line.
>

Hi Roy,

It is unfortunate that you have violated your own rule about the utility of a Thevenin argument in a matching argument. It does not work as a proof as much as you might like to portray it. It is seductively simple, but as Einstein once said, "keep it simple, but not too simple."

I will use the exact same scenario you have chosen and "prove" the opposite to show NEITHER argument is true as a proof of reflected power.

For those who have their hymnals ready, please turn to Terman, Norton's Theorem (footnote on page 75 of Terman's 4th edition) and sing along.

Thevenin and Norton circuits are interchangeable and wholly indifferentiable from the outside (you cannot tell which is which without going inside the black box). The Norton equivalent of a Thevenin source is simply the substitution of a constant current source for the Thevenin constant voltage source, and the translation of the internal resistance from a voltage series to a current parallel circuit.

So, we simply move the internal 50 Ohm resistor you have already specified across a constant current generator and attach the same transmission line and the same external 50 Ohm load. In this configuration we find EXACTLY the same voltage across the external load and by necessity, the same current through the load, and the same dissipation of heat as before.

By this arrangement, the constant current generator MUST supply a constant 2.828A to arrive at the same load conditions presented in the Thevenin model you offered. Nothing has changed at the terminals: the

load exhibits a dissipation of 100W with 70.71V across those same terminals.

We remove that load, just as you did, and all can confirm that the terminal voltage rises to EXACTLY the same potential found in the Thevenin model, 141.4V. The two models to this point are totally indifferentiable.

Now I violate Norton, just as you had violated Thevenin, by looking inside the box and observing the power being dissipated by the internal resistor and find in glaring contrast to your own finding that the internal resistor must now pass 2.828A through it (wholly in keeping with the property of a constant current generator) and that resistor which in the loaded configuration formerly dissipated the SAME 100W as the external resistor, now dissipates 400W - not your zero Watts. Thus, by your own logic, reflected power is real and has been proven by the same paradigm.

Thus, we are presented with conflicting evidence using the exact same components or their cross-equivalents (consult Terman to confirm).

Your proof is no more valid than mine, hence the failure of the argument's due entirely to those same aforementioned violations.

However, to examine this against the reality of life, SWR presents a hazard to equipment that your argument denies. An open, constant voltage source will not harm itself (barring poor engineering implementation) and this alone flies in the face of common experience with a transmitter driving an open circuit. In such a condition, the circuit has every chance of failing and due to heat (which your model does not offer in distinct contrast to reality) be it of conduction (Iï¿½R thermal run-away) or a high voltage arc (which either opens a connection, or leads to a short that again brings thermal run-away).

Further, the choice of a Thevenin model over a Norton model does not conform to design characteristics (the Norton model is almost a direct analog of today's solid state finals). Notably, a Norton model is inefficient in that it always dissipates power (once you've violated the black box to observe it) regardless of load. However, so does every common solid state transmitter in use by the majority of readers here.

I have often challenged folks here to monitor the current drain of their rig in the unexcited, but key-down condition to observe that baseline of lost power - it is considerable and easily accounts for 30 to 60% of the best condition that can be arranged with a full drive at key-down. In other words, most common solid state transmitters rarely exhibit 50, 60 or even 70% efficiency and this more closely aligns with the Norton model than it does with a Thevenin model.

This does not mean that our rigs are Norton sources, it also does not mean that our rigs are Thevenin sources. The simple fact of the matter is they are not linear and do not qualify in either regard.

But for practical purposes they do come close if we conspire to arrange our experiments. That has not happened here for either of us as both arguments are artificial, are in conflict (which violates equivalency, again consult Terman) and prove nothing.

73's
Richard Clark, KB7QHC

4085. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 07:51:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv3dlhn98sn8d5@corp.supernews.com>
Source record: 129724

I see that my main sin was to call the combination of a voltage source and series resistor a Thevenin source.

So let me retract that and call it a Lewallen source. Unlike Terman's Thevenin, I won't feel violated if you look inside my source. Perhaps that will allow you to see the point I was trying to make.

I do take issue with your "proof", however, and claiming to have "proved the opposite" of what I showed. I showed a single case in which the reverse power is not dissipated in the source resistance. It only takes the single example to prove that reverse power isn't dissipated in the source resistance. No number of examples showing a correlation between reverse power and dissipation will "prove the opposite" in the face of the single example to the contrary. I have shown a simple case where reverse power can't possibly be being dissipated in the source, even when it's perfectly matched to the line. Therefore, carefully constructed arguments nothwithstanding, I've shown that the reverse power isn't necessarily dissipated in the source resistance.

And, for that matter, I don't see that you've shown at all that the source of the power being dissipated by the resistor in your example is the reflected power. With the open circuited line attached and in steady state, you have 100 watts of reverse power on the line, and 200 watts being dissipated in the shunt source resistance. When you disconnect the line from the source, the resistor is still dissipating 200 watts, but there's no reverse power to furnish any of it. And the 100 watts of reverse power is still on the line. So we've changed the reverse power seen by the resistor from 100 watts to zero watts without any effect on its dissipation. How is it that this proves that reverse power is dissipated by the source or invalidates my example?

Roy Lewallen, W7EL

Richard Clark wrote:
> On Fri, 06 Dec 2002 16:51:33 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>Ok, here's a case for consideration.
>>
>>A = a generator consisting of a Thevenin source: a voltage source with a
>>50 ohm series resistor. This is a good model of a laboratory signal
>>generator of the type used for HF measurements. I'll make the open
>>circuit voltage 141.4 volts RMS, which is the voltage of the voltage source.
>>
>>B = a lossless 50 ohm half wavelength transmission line.

>>
>
>
>
> Hi Roy,
>
> It is unfortunate that you have violated your own rule about the
> utility of a Thevenin argument in a matching argument. It does not
> work as a proof as much as you might like to portray it. It is
> seductively simple, but as Einstein once said, "keep it simple, but
> not too simple."
>
> I will use the exact same scenario you have chosen and "prove" the
> opposite to show NEITHER argument is true as a proof of reflected
> power.
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> For those who have their hymnals ready, please turn to Terman,
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> sing along.
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> Thevenin and Norton circuits are interchangeable and wholly
> indifferentiable from the outside (you cannot tell which is which
> without going inside the black box). The Norton equivalent of a
> Thevenin source is simply the substitution of a constant current
> source for the Thevenin constant voltage source, and the translation
> of the internal resistance from a voltage series to a current parallel
> circuit.
>
> So, we simply move the internal 50 Ohm resistor you have already
> specified across a constant current generator and attach the same
> transmission line and the same external 50 Ohm load. In this
> configuration we find EXACTLY the same voltage across the external
> load and by necessity, the same current through the load, and the same
> dissipation of heat as before.
>
> By this arrangement, the constant current generator MUST supply a
> constant 2.828A to arrive at the same load conditions presented in the
> Thevenin model you offered. Nothing has changed at the terminals: the
> load exhibits a dissipation of 100W with 70.71V across those same
> terminals.
>
> We remove that load, just as you did, and all can confirm that the
> terminal voltage rises to EXACTLY the same potential found in the
> Thevenin model, 141.4V. The two models to this point are totally
> indifferentiable.
>
> Now I violate Norton, just as you had violated Thevenin, by looking
> inside the box and observing the power being dissipated by the
> internal resistor and find in glaring contrast to your own finding
> that the internal resistor must now pass 2.828A through it (wholly in

> keeping with the property of a constant current generator) and that
> resistor which in the loaded configuration formerly dissipated the
> SAME 100W as the external resistor, now dissipates 400W - not your
> zero Watts. Thus, by your own logic, reflected power is real and has
> been proven by the same paradigm.
>
> Thus, we are presented with conflicting evidence using the exact same
> components or their cross-equivalents (consult Terman to confirm).
>
> Your proof is no more valid than mine, hence the failure of the
> argument's due entirely to those same aforementioned violations.
>
> However, to examine this against the reality of life, SWR presents a
> hazard to equipment that your argument denies. An open, constant
> voltage source will not harm itself (barring poor engineering
> implementation) and this alone flies in the face of common experience
> with a transmitter driving an open circuit. In such a condition, the
> circuit has every chance of failing and due to heat (which your model
> does not offer in distinct contrast to reality) be it of conduction
> (Iï¿½R thermal run-away) or a high voltage arc (which either opens a
> connection, or leads to a short that again brings thermal run-away).
>
> Further, the choice of a Thevenin model over a Norton model does not
> conform to design characteristics (the Norton model is almost a direct
> analog of today's solid state finals). Notably, a Norton model is
> inefficient in that it always dissipates power (once you've violated
> the black box to observe it) regardless of load. However, so does
> every common solid state transmitter in use by the majority of readers
> here.
>
> I have often challenged folks here to monitor the current drain of
> their rig in the unexcited, but key-down condition to observe that
> baseline of lost power - it is considerable and easily accounts for 30
> to 60% of the best condition that can be arranged with a full drive at
> key-down. In other words, most common solid state transmitters rarely
> exhibit 50, 60 or even 70% efficiency and this more closely aligns
> with the Norton model than it does with a Thevenin model.
>
> This does not mean that our rigs are Norton sources, it also does not
> mean that our rigs are Thevenin sources. The simple fact of the
> matter is they are not linear and do not qualify in either regard.
> But for practical purposes they do come close if we conspire to
> arrange our experiments. That has not happened here for either of us
> as both arguments are artificial, are in conflict (which violates
> equivalency, again consult Terman) and prove nothing.
>
> 73's
> Richard Clark, KB7QHC

4086. where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 09:35:47 UTC
From: richie_r1ch@hotmail.com
Message-ID: <6ec14ee2.0212070135.4d0177e9@posting.google.com>
Source record: 129725

I have an old yagi antenna on the roof and I want to start using it.
It came with the house.

It looks very similar to this one:
http://www.channelmaster.com/layout_graphics/3014%20Antenna.jpg

I want to run a coax cable "the type used for catv" from the antenna
to my tv. The problem is I can't seem to find any places where a cable
would be connected. Do I just strip it and wrap it around any element?
Where does the middle wire go? and where would the braided wire that
sorrounds it go?

thanks

4087. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 11:42:59 UTC
From: gmz79@aol.comnospam
Message-ID: <20021207064259.21791.00000185@mb-ce.aol.com>
Source record: 129726

Thats not a yagi, it's a log periodic.
youll need a matching transformer (ratshack),
connect to the posts found on the longest straight element.
Greg Z
to thine own sound be true

4088. Re: Balun question, please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 12:29:53 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <5RII9.7838$903.7499@nwrddc02.gnilink.net>
Source record: 129727

for 10 Meters, 7 turns is too many. More like 4 turns on a 4.5" form.

'73 KI4Z
"Stahr" <w6nycthetrash@earthlink.net> wrote in message
news:%gaI9.8335$kz2.855117@newsread1.prod.itd.earthlink.net...
> Got my aluminum for the 10m dipole, also got some RG8x.
>
> I'm wondering if I should make a choke balun by winding about 7 turns of
the
> coax near the antenna?
>
> I read some on the web that say you shouldn't do that with RG8x,
especially
> if you will be running more than 100w. I hope to do a max of 400w, and am
> now concerned about coiling the coax.
>
> Do I need the balun for a single band 10m dipole, or should I just forget
> the balun?
>
> Help is always appreciated...
>
> Bless & 73 de:
> Dennis Stahr - W6NYC
>
> http://www.qsl.net/w6nyc/
> Take out "the trash" when return emailing
>
>
>
>

4089. Re: Balun question, please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 12:34:40 UTC
From: "Thomas C. Sefranek" <WA1RHP@ARRL.net>
Message-ID: <AVII9.9258$kz2.949003@newsread1.prod.itd.earthlink.net>
Source record: 129728

Mark Hall <mark.hall34@verizon.net> wrote in message
news:5RlI9.7838$903.7499@nwrddc02.gnilink.net...
> for 10 Meters, 7 turns is too many. More like 4 turns on a 4.5" form.

Why do you say 7 is too many?
Except for cable attenuation, more turns is better!

>
> '73 KI4Z
> "Stahr" <w6nycthetrash@earthlink.net> wrote in message
> news:%gaI9.8335$kz2.855117@newsread1.prod.itd.earthlink.net...
> > Got my aluminum for the 10m dipole, also got some RG8x.
> >
> > I'm wondering if I should make a choke balun by winding about 7 turns of
> the
> > coax near the antenna?
> >
> > I read some on the web that say you shouldn't do that with RG8x,
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> > if you will be running more than 100w. I hope to do a max of 400w, and
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> > Bless & 73 de:
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> > Take out "the trash" when return emailing
> >
> >
> >
> >
>
>
>

4090. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 13:23:10 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asssnu$i57$1@knossos.btinternet.com>
Source record: 129729

>
> "Is this a printing`s error?"
>
> Must be.
>
> Forward and reflected power RATIO, like SWR is affected only by the
> mismatch between Zo and the load.
>
> I have a Bird slide rule with an example:
> "Set Reflected Power at Forward Power.
> Example:
> Pf = 5W
> Pr = 1W
> VSWR = 2.6
> Return loss = 7.0 dB
> Match Efficiency = 80%
> Reflection Coefficient = 0.45"
>
> Source impedance was not involved in any of the determinations above.
==========

And simultaneously, bang goes the conjugate match !

4091. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 13:47:34 UTC
From: "J. Keith Carter" <j.keith.carter@sympatico.ca>
Message-ID: <3DF1FBF6.D95A32A9@sympatico.ca>
Source record: 129730

Log Periodic antennas are usually fed at the shortest element end. Am I missing something? Keith, VE3JKC.

greg z wrote:

> Thats not a yagi, it's a log periodic.
> youll need a matching transformer (ratshack),
> connect to the posts found on the longest straight element.
> Greg Z
> to thine own sound be true

4092. Re: Balun question, please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 13:59:07 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <assurg02mj6@enews4.newsguy.com>
Source record: 129733

"Thomas C. Sefranek" <WA1RHP@ARRL.net> wrote in message
news:AVlI9.9258$kz2.949003@newsread1.prod.itd.earthlink.net...
>
> Mark Hall <mark.hall34@verizon.net> wrote in message
> news:5RlI9.7838$903.7499@nwrddc02.gnilink.net...
> > for 10 Meters, 7 turns is too many. More like 4 turns on a 4.5" form.
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> Why do you say 7 is too many?
> Except for cable attenuation, more turns is better!
>
> >
> > '73 KI4Z
> > "Stahr" <w6nycthetrash@earthlink.net> wrote in message
> > news:%gaI9.8335$kz2.855117@newsread1.prod.itd.earthlink.net...
> > > Got my aluminum for the 10m dipole, also got some RG8x.
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> > > I'm wondering if I should make a choke balun by winding about 7 turns
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> > the
> > > coax near the antenna?
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> > > I read some on the web that say you shouldn't do that with RG8x,
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> > > Help is always appreciated...
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> > > Bless & 73 de:
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> > >
> > > http://www.qsl.net/w6nyc/
> > > Take out "the trash" when return emailing

increasing the number of turns increases the interwinding capacitance. at
high frequencies this reduces the impedance of the choke. see some actual
data on http://www.k1ttt.net/technote/airbalun.html near the bottom of the
page. note that at 28mhz the 6 turn on 4.24" form has about 3 times the

impedance of the 12 turn one. also that 4 turns on 6.625" form has about double the impedance of 8 turns on the same form... and very importantly note that bunching the turns up instead of making a neat single layer reduces the impedance by a factor of 10! at 28mhz making it virtually useless at 10m while it is actually better below 7mhz.

4093. Re: Corvette Antenna Mount

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 14:08:42 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DF200DA.8050504@tampabay.rr.com>
Source record: 129731

hey stan
i dont have a vette but my mercery sable has a plastic trunk lid and
rear fenders so what i did is
i went to the website for hamstick antennas and they make a license
plate mount and basically what it is is a stainless steel plate the same
size as your license plate with a tab that sticks out either the top or
bottom which has a 3/8 24 thread mount on it and what you do is run a
ground wire from the mount to the frame somewhere close
it sells for i think $45 but it works well
i think there website is www.hamstick.com then click on products then
the mount button
good luck

Stan wrote:
> Any ideas? Looking for a C5 (1997 to 2003 yr) Corvette antenna mount to a
> handle the 3/8 X 24 thread type antenna,
>
> Thank you
> Stan
>
>

4094. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 14:10:10 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <6jnI9.47433$hK4.4170349@bgtnsc05-news.ops.worldnet.att.net>
Source record: 129732

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:uv3dlhn98sn8d5@corp.supernews.com...

>>

Hi Roy,

In an earlier post you made the following statement:

>>
"The notion that reverse power is absorbed or dissipated by the load is a
myth, based on misunderstanding of the phenomena involved. It's very
easy to provide any number of examples to show it's simply not true."
>>

I think you need to be careful in how you make this statement and in what you imply by it. I think a more correct statement would be that the internal source power dissipation does not necessarily increase (or decrease) by an amount equal to the reflected power. In implying that reflected power is "not absorbed" or "not dissipated" by the source, many people presume that the only thing that can happen to the reflected power is that it must be re-reflected. If the source impedance is equal to the Zo of the transmission line, there will simply be no re-reflected power (voltage and current).

So, what happens to the reflected power? The problem in understanding the answer to this question is that we try to perform the transmission line/circuit analysis with power. The transmission line/circuit analysis must be performed with voltage and current.

The more technically correct statement in this problem is that the reflected voltage and current are delivered to the source. The internal source power dissipation is simply a function of the forward and rearward voltage and current developed across the source impedance.

Consider a simple example.

Let's assume that we have a 100 V source with a 50 ohm source impedance connected to a 50 ohm, 1 WL line terminated with a 50 ohm load. The steady state voltage across the source impedance is 50 V, the steady state voltage across the load is 50 V. The power dissipated in the source impedance and the load is 50 W. (I'm using |V|^2/R to determine P) The forward power in the line is 50 W and the reflected power is 0 W.

Now let's consider the situation where the line is terminated with an impedance such that the reflected power is 50 W. What is the total power dissipated in the souce impedance? The power dissipated in the source

impedance will range between 0 W and 200 W as direct function of the phase of the reflected voltage and current.

The total voltage delivered to the source impedance will be equal to V = Vforward - Vreflected. Vforward is the forward voltage delivered to the source impedance by the 100 V source voltage. Vforward will always be 50 V in this example. Vreflected is simply the reflected voltage.

Specific Examples:

V = Vforward - Vreflected

Short Circuit Termination: Vreflected = -50V; V = 50 - (-50) = 100 V. P = 200 W

Open Circuit Termination: Vreflected = +50V; V = 50 - (+50) = 0 V. P = 0 W

Load = 0 + j50 ohms: Vreflected = +j50; V = 50 - (+j50) = 50 - j 50. P = 100 W

We could come up with a number of examples to demonstrate these concepts.

If the source impedance is equal to Zo, there will be no re-reflected power. However, stating that the reflected "power" is delivered to the source is only valid in understanding that it is the reflected voltage and current that are delivered to the source.

The steady state power dissipated in the source is simply a direct function of the steady state forward and rearward voltages developed in the source.

In all cases, the levels of reflected voltage and current (therefore power) at the source are a direction of the source impedance reflection coefficient.

A similar analysis works if the source impedance is not equal to 50 ohms.

Steve VE9SRB

4095. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 14:21:13 UTC
From: k1bqt@aol.com
Message-ID: <20021207092113.02004.00000006@mb-cv.aol.com>
Source record: 129734

>Witness England with a rapidly rising crime rate.<

Don't forget Aussie land. While a republic may represent a superb form of government, it's always been a little too messy for the feint of heart and folks serious control issues. Same could be said for this newsgroup, where some appear to want tort lawyers to regulate what participants may say to each other.

But its worse. I hear some people even live in situations were the neighbors dictate what antennas may put up. You call that a life?

Rick K1BQT

4096. FT 920 , Versa tunner 5 4-trade

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 14:57:11 UTC
From: Oris <orisnospam@dirtball.com>
Message-ID: <3DF207BA.8040904@dirtball.com>
Source record: 129735

Hello
I have a FT 920 with the AM filter and FM board. The FT 920 is 100 watts HF + 6 Meters. It has a Auto tunner and the MC 100 Desk Mic. I also Have the 3 KW Roller Inductor Antenna Tuner. They are in good shape I will trade both for a FT 990 or a FT 1000.. I have been using the FT 920 as a backup rig.
If you have a FT 1000D I will add a Henry Radio 2KD-5 Amplifier to the deal. 100 watts in gets you about 1000 watts out. It has new caps and a pair of Emac 3-500. It is wired for Single Phase 240. The same voltage that runs your dryer and electric range. I am will to travel 100 miles from Athens GA. Drop me a email so we can work out the deal.
oris@dirtball.com
Happy Holidays
73 and thanks for reading
Oris
N4CND
http://www.dirtball.com

4097. MFJ-1762 hairpin details

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 15:04:37 UTC
From: Adam 9A4QV <alicajic.adam@pu.hinet.hr>
Message-ID: <ast2kg$79mn$1@as201.hinet.hr>
Source record: 129736

Hello,

Does anybody have MFJ-1762, 3 elements yagi 50mhz, hairpin dimensions
(hairpin dimensions & wire diameter). Thanks in advance

Adam, 9a4qv

4098. fm antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 15:04:45 UTC
From: netvision <erez_rz@netvision.net.il>
Message-ID: <ast2ni$l6d$1@news2.netvision.net.il>
Source record: 129737

I hope I am in the right place and I really hope some one can help me.

I am quite a fan of FM radio stations but the problem is that poor reception is better then what I have where I live.

can someone recommend a good antenna or reciver or amplifier in a decent price .

thank you

4099. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 15:58:43 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF21AB3.6090104@ieee.org>
Source record: 129738

VE9SRB wrote:
> The steady state power dissipated in the source is simply a direct function
> of the steady state forward and rearward voltages developed in the source.

Why do you present only voltage and ignore current? Voltage and current are
in phase in the forward wave and 180 degrees out of phase in the reflected wave.
Thus, no matter what the phase, as long as the energy in the forward wave and
the energy in the reflected wave remain constant, the current will rise when
the voltage falls and vice versa. The transmitter not only has over-voltage
protection. It also has over-current protection.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4100. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 17:05:55 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <TTpI9.47628$hK4.4189529@bgtnsc05-news.ops.worldnet.att.net>
Source record: 129740

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DF21AB3.6090104@ieee.org...
> VE9SRB wrote:
> > The steady state power dissipated in the source is simply a direct
function
> > of the steady state forward and rearward voltages developed in the
source.
>
> Why do you present only voltage and ignore current? Voltage and current
are
> in phase in the forward wave and 180 degrees out of phase in the reflected
wave.

Hi Cecil,

The statement was made from the perspective that the analysis could be done knowing only the voltage and source impedance. The analysis could also be done knowing only the current and the source impedance. I figured it would be understood that if one knew V and Z, I and P could be determined. At the same time, if one knew I and Z, V and P could be determined. As long as you maintain the correct relationships between forward and rearward voltage or forward and rearward current, either reference would work fine.

It is also important to be clear on which direction (forward or rearward) one defines for a "+V" versus a "-V" and a "+I" versus a "-I". This is important in understanding whether to "add" or "subtract" the forward and rearward voltages and currents to determine the total voltage and current.

In making the following statement:

"Now let's consider the situation where the line is terminated with an impedance such that the reflected power is 50 W. What is the total power dissipated in the souce impedance? The power dissipated in the source impedance will range between 0 W and 200 W as direct function of the phase of the reflected voltage and current."

More to your point, I should have been more precise in the last sentence as follows:

The power dissipated in the source impedance will range between 0 W and 200 W as direct function of the relative phase between the forward and rearward voltages and/or the relative phase between the forward and rearward currents.

Steve VE9SRB

4101. Re: Disruptive Technolgies

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 17:27:30 UTC
From: Robert Fanfant <fanfant1@attbi.com>
Message-ID: <6cqI9.152563$GR5.43008@rwcrnsc51.ops.asp.att.net>
Source record: 129741

Another good example of disruptive technology is a "Girls Gone Wild" video
tape. ;-)

-rob

"dan" <danlx@execpc.com> wrote in message
news:3dee3d94$0$1408$272ea4a1@news.execpc.com...
> On Wed, 04 Dec 2002 09:49:02 -0600, OC_CAM's Razor
> <Cecil.A.Moore@ieee.org> wrote:
>
> >Peter O. Brackett wrote:
> >> But fractal antennas, disruptive?
> >>
> >> An interesting approach to linear loading, but not disruptive, perhaps
the
> >> fractal geometry disrupts the continuity of their elements, but...
> >
> >Peter, you have to admit fractal antennas have disrupted r.r.a.a. :-)
> Hi Cam,
> I have to disagree. Fractal antennas have not disrupted anything. It
> is the Mr. Buffoon, pounding his own chest, threatening legal revenge
> and well, just being Mr. Buffoon, that has caused a disruption on
> r.r.a.a.! Even if the fractal crap brings him millions, he will still
> be Mr. Buffoon when he looks in the mirror. There is no place Mr.
> Buffoon can go to hide his Mr. Buffoon reputation. I almost feel
> sorry for him, NOT.
> Dan
> N9JBF
>
> I've rambled enough, back to the rocking chair. ZZZZZZZZZ
> Remove left x for e-mail reply.

4102. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 17:33:40 UTC
From: richardharrison@webtv.net
Message-ID: <2451-3DF230F4-215@storefull-2315.public.lawson.webtv.net>
Source record: 129742

Reg, G4FGQ wrote:
(Source impedance was not involved in any of the determinations above.)
"And simultaneously bang goes the conjugate match!"

Yes, but only because the 5W forward and 1W reflected were givens. Were the match to the transmitter better or poorer, we likely would have had more or less than these powers. If the load on the coax is unchanged, 20% of the incident power at the load gets reflected.

Best regards, Richard Harrison, KB5WZI

4103. Re: fm antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 17:53:59 UTC
From: "Dee D. Flint" <deehays@qix.net>
Message-ID: <XAqI9.6832$4j5.3224366@newssvr28.news.prodigy.com>
Source record: 129739

The Radio Shack discone antenna is an easy to assemble omni-directional antenna. Put it together per the instructions and mount it as high as you can, preferably outdoors.

I believe they also sell FM antennas that are basically dipoles. Again mount it as high as you can. For example, near the ceiling is better than near the floor.

Dee Flint, N8UZE

"netvision" <erez_rz@netvision.net.il> wrote in message news:ast2ni$l6d$1@news2.netvision.net.il...
> I hope I am in the right place and I really hope some one can help me.
>
> I am quite a fan of FM radio stations but the problem is that poor reception
> is better then what I have where I live.
>
> can someone recommend a good antenna or reciver or amplifier in a decent
> price .
>
> thank you
>
>

4104. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 18:39:17 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212071039.3217d840@posting.google.com>
Source record: 129743

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DF1938B.5090509@ieee.org>...
> Dick Carroll wrote:
> > Anyone who thinks guns in the hands of criminals can be stopped by eliminating
> > them from private ownership is a wildeyed dreamer, ...
>
> Witness England with a rapidly rising crime rate.

This "England " bit is somewhat of a distortion
Rapidly rising crime rate, what does that mean in actual comparable
statistics?
Is it because of 'guns'? Is it as bad as it is in the U.S.?
Are crimes mainly from non ethnic groups since all countries are now
wide open to those from other countries? (Gang warefare seems to
contribute to a lot of deaths in the U.S.)
Does England have the same rate of accidental killings or crimes of
passion
that prevail where guns are easily obtainable for "defense purposes?
How many policemen have been shot and killed by those that carry guns?
Many criminals will carry a baseball bat to accomplish acts of
violence rather than take the chance of increased sentences incurred
by carrying a gun.
The situation or discussion regarding the carrying of arms is fine but
clogging the discussion by bringing England into it is just not
relevent.
Art

4105. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 18:42:03 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF240FB.EE5E3A8B@cwis.net>
Source record: 129744

Greg,
Actually, all elements of a LPA are fed, all
elements are 'active'. Depending on who made the
antenna, the feed point could be almost anywhere.
'Doc

4106. Re: Balun question, please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 18:43:30 UTC
From: "Thomas C. Sefranek" <WA1RHP@ARRL.net>
Message-ID: <mjrI9.9607$kz2.996742@newsread1.prod.itd.earthlink.net>
Source record: 129745

```
Take 2 turn of coax.
What is the interwinding capacitance?
(Distance and dielectric)
Add another turn (in series)
Does the end to end capacitance increase?
It's like saying capacitors in series add.

David Robbins <k1ttt@arrl.net> wrote in message
news:assurg02mj6@enews4.newsguy.com...
>
> "Thomas C. Sefranek" <WA1RHP@ARRL.net> wrote in message
> news:AVlI9.9258$kz2.949003@newsread1.prod.itd.earthlink.net...
> >
> > Mark Hall <mark.hall34@verizon.net> wrote in message
> > news:5RlI9.7838$903.7499@nwrddc02.gnilink.net...
> > > for 10 Meters, 7 turns is too many. More like 4 turns on a 4.5" form.
> >
> > Why do you say 7 is too many?
> > Except for cable attenuation, more turns is better!
> >
> > >
> > > '73 KI4Z
> > > "Stahr" <w6nycthetrash@earthlink.net> wrote in message
> > > news:%gaI9.8335$kz2.855117@newsread1.prod.itd.earthlink.net...
> > > > Got my aluminum for the 10m dipole, also got some RG8x.
> > > >
> > > > I'm wondering if I should make a choke balun by winding about 7
turns
> of
> > > the
> > > > coax near the antenna?
> > > >
> > > > I read some on the web that say you shouldn't do that with RG8x,
> > especially
> > > > if you will be running more than 100w. I hope to do a max of 400w,
> and
> > am
> > > > now concerned about coiling the coax.
> > > >
> > > > Do I need the balun for a single band 10m dipole, or should I just
> > forget
> > > > the balun?
> > > >
> > > > Help is always appreciated...
```

> > > >
> > > > Bless & 73 de:
> > > > Dennis Stahr - W6NYC
> > > >
> > > > http://www.qsl.net/w6nyc/
> > > > Take out "the trash" when return emailing
>
> increasing the number of turns increases the interwinding capacitance.
at
> high frequencies this reduces the impedance of the choke. see some actual
> data on http://www.k1ttt.net/technote/airbalun.html near the bottom of the
> page. note that at 28mhz the 6 turn on 4.24" form has about 3 times the
> impedance of the 12 turn one. also that 4 turns on 6.625" form has about
> double the impedance of 8 turns on the same form... and very importantly
> note that bunching the turns up instead of making a neat single layer
> reduces the impedance by a factor of 10! at 28mhz making it virtually
> useless at 10m while it is actually better below 7mhz.
>
>
>
>
>
>

4107. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 18:45:43 UTC
From: Earth Wolf <"Earth Wolf"@telusplanet.net>
Message-ID: <3DF241E2.7060305@telusplanet.net>
Source record: 129746

I've looked at the Fractal Antenna web site and can find nothing on there which gives any explanation of how this antenna works, or why it's supposedly superior to any other technology.

I looked up one of the patents they hold, but like many patents, it is devoid of any actual information about how the technology works. Unfortunately, this isn't anything new - for years, the US Patent Office has issued patents for things that simply don't work, or at least don't work very well.

I think there was a guy who invented the "Rubik's Cube", years before Professor Rubik did. His version of the cube used rubber bands which got twisted up inside and wore out very quickly. Nevertheless, he was able to sue the American manufacturers of the Rubik's Cube for millions of dollars, even though they didn't use any of his technology, just the idea (which Rubik came up with independently).

Moral: if you have an invention, patent it - even if it doesn't work. If some genius later on manages to find a way to make it work, you can sue him for "patent infringement". But I digress.

The only supposedly technical paper I can find describing this technology is now available as a reprint - for the paltry sum of $25 US. The fact that Dr. Cohen seems to think that a technical paper he wrote 7 years ago for Communications Quarterly is worthy of such collector status makes me question his understanding of the scientific method. I can buy the entire set of Communications Quarterly magazine from 1990 to 1999 on CD-ROM for $39.95, for crying out loud (http://www.radio-ware.com/books/ar-cdcq.htm) assuming it's the same Communications Quarterly. If it is, then it does not appear to me to be a refereed journal.

I read the first page of the reprinted article (that's available for free) but it contains nothing of substance, except what I consider a mistake near the bottom of the page, where Dr. Cohen states "Constructions of 'classic' (Euclidean) geometry have dominated [continued on next page, which I don't have]". If he's saying that constructions of Euclidean geometry have dominated antenna design, this is no more relevant than saying they've dominated table manufacturing; most tables are circular, square, rectangular, or occasionally triangular. But I don't think the principles of Euclidean geometry have much to do with antenna design, beyond pointing out that every physical object must have a shape, and some shapes are better suited to antenna construction than others.

Eric Oyen - N7ZZT wrote:

>hell0 OM,
>you know most of the folks over at the "fractenna" shop appear to be
>nothing more than glorified technicians to me. They spout big words, but
>thats all.
>
>Hell, I've yet to see nathan cohen or chip or any of the others published
>in the IEEE Journal. Until that happens, I'm not likely to believe
>anything they have to say on "fractal antennas".
>
>otherwise, the debate is a lively one and I look forward to reading up on
>it in future posts.
>
>DE N7ZZT (Eric Oyen)
>phoenix, arizona
>
>In article <3DEF647B.2050500@telusplanet.net>, "Earth Wolf" <"Earth
>Wolf"@telusplanet.net> wrote:
>
>>Ad hominem attacks such as this are usually a clear indication of a
>>pseudo-scientist or crackpot at work.
>>
>>Who or what Peter works for is irrelevant to the strength/weakness of
>>his arguments, and equally irrelevant to the strength/weakness of yours.
>>
>
>

--
In accordance with a first aspect of the present invention, there is provided a transportation facilitation device including a circular rim, a bearing in which a hollow cylindrical member is rotatable about a rod situated within the hollow cylindrical member, and a series of connecting members connecting the circular rim with the hollow cylindrical member to maintain the circular rim and the hollow cylindrical member in substantially fixed relation, wherein the rod is positioned on an axis perpendicular to the plane of the circular rim, and substantially central of the circular rim.

Abstract from John Keogh's successful 2001 application for an Australian patent (Innovation Patent #2001100012) for the "Circular transportation facilitation device" aka "wheel".

4108. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 19:33:45 UTC
From: gmz79@aol.comnospam
Message-ID: <20021207143345.26370.00008748@mb-ft.aol.com>
Source record: 129747

>Greg,
> Actually, all elements of a LPA are fed, all
>elements are 'active'. Depending on who made the
>antenna, the feed point could be almost anywhere.
> 'Doc

I agree,however the original post was about a uhf/vhf/fm antenna
with a link to the antenna in question and going by my 40plus years of
experience that antenna is fed at the longest uhf element (straight) unless of
course you decide to split the uhf/vhf sections to two downleads. He was, by
the way wanting to know where to hook the coax,and since it obiously didn't
have a 300^&75^ x-former to attach his 75^ coax I sent him to Rat shack.
Greg Z
to thine own sound be true

4109. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 19:52:07 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <Hjsl9.11362$903.3611@nwrddc02.gnilink.net>
Source record: 129748

If that's a 20M Log Periodic, that's one Killer tower you have there.

"greg z" <gmz79@aol.comnospam> wrote in message
news:20021207143345.26370.00008748@mb-ft.aol.com...
> >Greg,
> > Actually, all elements of a LPA are fed, all
> >elements are 'active'. Depending on who made the
> >antenna, the feed point could be almost anywhere.
> > 'Doc
>
> ----------
> I agree,however the original post was about a uhf/vhf/fm antenna
> with a link to the antenna in question and going by my 40plus years of
> experience that antenna is fed at the longest uhf element (straight)
unless of
> course you decide to split the uhf/vhf sections to two downleads. He was,
by
> the way wanting to know where to hook the coax,and since it obiously
didn't
> have a 300^&75^ x-former to attach his 75^ coax I sent him to Rat shack.
> Greg Z
> to thine own sound be true

4110. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 20:05:13 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF25479.7070303@ieee.org>
Source record: 129749

VE9SRB wrote:
> The power dissipated in the source impedance will range between 0 W and 200
> W as direct function of the relative phase between the forward and rearward
> voltages and/or the relative phase between the forward and rearward
> currents.

So we have a key down ham transmitter that sees a virtual open circuit. Are you saying it won't dissipate any power while it maintains the standing waves? Ever try that with an unprotected transmitter? I forgot to hook the antenna up to my ARC-5 one time and burned up the 1625's. You are mistakenly allowing your model to try to dictate reality instead of the other way around. There is no possible way to maintain standing waves on a transmission line without dissipating power in the source. Most ham transmitters will fold back when looking into an open circuit for the purpose of keeping them from burning themselves up. Your model does NOT correspond to reality.

If you can set such an experiment up on the bench, you can demonstrate standing waves without a power source. Have you patented your magic energy machine yet? I've got a picture of it on my web page at: http://www.qsl.net/w5dxp/magic.gif
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4111. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 20:13:27 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <g8i4vuoks602k3o2240fivcc6iraj0bc7n@4ax.com>
Source record: 129750

On Fri, 06 Dec 2002 23:51:54 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>I see that my main sin was to call the combination of a voltage source
>and series resistor a Thevenin source.

Hi Roy,

You can say that again.

>
>So let me retract that and call it a Lewallen source. Unlike Terman's
>Thevenin, I won't feel violated if you look inside my source. Perhaps
>that will allow you to see the point I was trying to make.

This simply casts the issue back into what constitutes a Lewallen
voltage source (as distinct from the over-all Lewallen source). You
are simply crafting the scope after the fact to fit the argument.
Problem is the remainder of your apologia then goes to assume your
retraction and you argue that as a defense against my comments. Is
this Zen archery?

>
>I do take issue with your "proof", however, and claiming to have "proved
>the opposite" of what I showed.

Roy, that is NOT what I said:
>> I will use the exact same scenario you have chosen and "prove" the
>> opposite to show NEITHER argument is true as a proof of reflected
>> power.
And I did not isolate that to one simple escape clause, but reinforced
it continually:
>> Now I violate Norton, just as you had violated Thevenin,
or
>> Your proof is no more valid than mine, hence the failure of the
>> argument's due entirely to those same aforementioned violations.

You may have an issue, but you do not address it except in terms that
I have clearly qualified, admitted to, and dismissed. Restating my
own admission, without attribution does not qualify as an argument
against me and it certainly does not qualify as new testimony from
you.

> I showed a single case in which the
>reverse power is not dissipated in the source resistance. It only takes
>the single example to prove that reverse power isn't dissipated in the
>source resistance.

And this is different from my counter proof that clearly employs the same logic? You have been shown a single case that denies your logic. The logic does not hold and THAT has been demonstrated.

>
>And, for that matter, I don't see that you've shown at all that the
>source of the power being dissipated by the resistor in your example is
>the reflected power.

Again, nothing in my post suggests I was offering a proof of reflected power as I have admitted IT DOES NOT many times. Ascribing such motives to me to leverage an argument does not compel.

You were entirely right to confess to your sin, but expecting contrition from me for it is as poor logic as where you started. Learn to separate the criticism of the logic/proof from an attack on the topic being offered.

73's
Richard Clark, KB7QHC

4112. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 20:22:44 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF25894.2070306@ieee.org>
Source record: 129751

Art Unwin KB9MZ wrote:
> This "England " bit is somewhat of a distortion.

Art, maybe you are just not up to date.

Headlines from British papers tell the story:

"Handgun crime soars despite Dunblane ban"ï¿½ "Police move to tackle huge rise in crime"ï¿½ "London gun murders tripled in 2001"ï¿½ "Steep rise in violent crime"ï¿½ "Top gangs getting more guns, warn police" ... "Handgun crime up despite ban"ï¿½ "Gun crime rise in London"ï¿½ "Gun crime trebles as weapons and drugs flood British cities."

The London Evening Standard reported on Dec. 19, 2001, "Gun crime in London is rocketing, with increases of almost 90 percent in some firearms offenses, Scotland Yard reported today. New figures show London murders with guns increased by 87 percent in the first eight months of the year compared with the same period last year."
--
cheers, CAM http://www.qsl.net/w5dxp

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4113. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 20:24:34 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <b4m4vugqdv5qen3juhv1m5i10kuel1i5ac@4ax.com>
Source record: 129752

On Sat, 07 Dec 2002 00:14:23 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:
>
>What would happen if two tsunamis going opposite directions met
>in the middle of the ocean?

Hi Cecil,

The same effect as though a Radio Moscow transmission met a VOA
transmission in the middle of the ï¿½ther. Unfortunately, in times past
we've been offered scenarios where the ï¿½ther has been replaced with a
hybrid ring and that somehow changes things.

73's
Richard Clark, KB7QHC

4114. Re: Balun question, please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 20:25:46 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF2594A.6060601@ieee.org>
Source record: 129753

Thomas C. Sefranek wrote:
> Take 2 turn of coax.
> What is the interwinding capacitance?
> (Distance and dielectric)
> Add another turn (in series)
> Does the end to end capacitance increase?
> It's like saying capacitors in series add.

Are you familiar with self resonance in mobile
antenna loading coils?
--
cheers, CAM http://www.qsl.net/w5dxp

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4115. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 20:34:45 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF25B65.3020506@ieee.org>
Source record: 129754

Richard Clark wrote:
> On Sat, 07 Dec 2002 00:14:23 -0600, OC_CAM's Razor
> <Cecil.A.Moore@ieee.org> wrote:
>
>>What would happen if two tsunamis going opposite directions met
>>in the middle of the ocean?
>
> The same effect as though a Radio Moscow transmission met a VOA
> transmission in the middle of the ï¿½ther.

Exactly. Forward waves and reflected waves are transparent to each other until they encounter a real impedance discontinuity at which point their reflections can cause wave interference between their components.
--
cheers, CAM http://www.qsl.net/w5dxp

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4116. help with 70 cm beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 20:49:38 UTC
From: Whovian <smitty@gallifrey.zzn.com>
Message-ID: <Xns92DDA15A14CB9smittygallifreyzznco@216.168.3.44>
Source record: 129755

Hi all, I would like to build a 70 cm multi element beam but I don't know how long to make the driver and elements or how far apart they should be spaced. I was hoping that someone here could help me out.

thanx

4117. COAX types and performance

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 21:02:24 UTC
From: adam.white@sbcglobal.net
Message-ID: <3df2542a.264773964@news.dallas.sbcglobal.net>
Source record: 129756

Being new to the HAM game, living quite some distance from the nearest supplier of HAM components, and being tight on cash all encourage me to do as much homework as possible before buying items to build my HAM setup. Most recently I've been looking at COAX cable and I dug up the following statistics (listed in order): dB attenuation per 100 ft. at 10 Mhz, dB attenuation per 100 ft. at 50 Mhz, Impedence, Max operational Voltage, and price per foot at a local supplier.

Belden RG-8/U (#9913): 0.40, 0.9, 300, n/a
Belden RG-8/x (#9258): 0.90, 2.1, 300, $0.19 ***
Belden RG-58/U Type (#9201): 1.10, 2.5, 1400, $0.22.
Belden RG-213/U QPL (#8267): 0.55, 1.3, 3700, $0.55
Times Microwave LRM-240 ultraflex: n/a, 1.9, n/a, $0.47
*** Note: I'm assuming this is what is commonly called 8x-mini ???

I'm wondering how significant to me and my little application the various specifications will be -- I plan to use a little (less than 100 feet) COAX as feedline for a 20m dipole. I understand the importance of attenuation, but it appears to me that the attenuation for ANY of these cables on such a short run would not be a problem. But I'd like your thoughts on this. The price difference between any of these options is not really significant (difference between $20 and $40) ... but now that I've started looking at these stats, my curiosity is aroused.

And what about that "max operational voltage" number? Is that significant for a standard HF transceiver running no more than 1500 watts?

There's also the question of shielding. I did not include the spec's on shielding. Would the shielding on any of these cables be problematic for me?

A final question: I noticed that some COAX has a single conductor and some of it has multiple strands. For example, the RG-8x listed above has 19 strands, while the others have only one. Aside from the price difference (stranded cables appear to me to cost about half of the amount for the same sized single-strand conductor), is there any meaningful difference between stranded conductors and single-strands?

Thanks in advance.
Adam
kd5qae

4118. Re: Balun question, please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 21:34:18 UTC
From: "Thomas C. Sefranek" <WA1RHP@ARRL.net>
Message-ID: <uPtI9.9765$kz2.1020409@newsread1.prod.itd.earthlink.net>
Source record: 129757

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
news:3DF2594A.6060601@ieee.org...
> Thomas C. Sefranek wrote:
> > Take 2 turn of coax.
> > What is the interwinding capacitance?
> > (Distance and dielectric)
> > Add another turn (in series)
> > Does the end to end capacitance increase?
> > It's like saying capacitors in series add.
>
> Are you familiar with self resonance in mobile
> antenna loading coils?

Certainly, what's your point?
I can demonstrate self resonance with ANY coil.
What was proposed was that adding LINEAR turns to a balun increased the
capacitance.
"increasing the number of turns increases the interwinding capacitance."
This is FALSE!
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
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>

--
*
| __O Thomas C. Sefranek WA1RHP@ARRL.net
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

4119. Re: Twisted-pair feedline for HF?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 21:51:43 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <P3ul9.12144$903.7511@nwrddc02.gnilink.net>
Source record: 129758

sure.. it'll work, but I don't like transmitting through an attenuator on
the way to the antenna..

'73 KI4Z

"Ken" <cprstn54zz@att.net> wrote in message
news:3de0e500.7911609@news-server.optonline.net...
> On Mon, 25 Nov 2002 09:39:17 -0500, "N4LQ" <N4LQ@igLou.com> wrote:
> >Twisted pair feeder is described in my 1937 ARRL Antenna Handbook.
Impedance
> >is about 75 ohms, affected by moisture and has more loss than coax. It
> >became the standard for telephones and door bells.
>
> The twisted-pair wiring used in networking is supposed to be
> significantly different from that used for doorbells.
>
> When I built my house in 1986, I ran three twisted-pair shielded
> communications wiring all over, mainly for 9600 baud peripheral access
> via RS-232. I was thrilled in 1997 to learn that networks coukd be
> run on twisted pair. I was less thrilled to learn that the twisted
> pair used for networking was nothing like my twisted pair.
> Apparently, the new stuff can handle 100 MHz because that is what the
> networks run at. Unless attenuation is very high, HF should be no
> problem at all.
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

4120. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 22:24:21 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <pyuI9.48120$hK4.4226152@bgtnsc05-news.ops.worldnet.att.net>
Source record: 129759

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DF25479.7070303@ieee.org...
> VE9SRB wrote:
> > The power dissipated in the source impedance will range between 0 W and
200
> > W as direct function of the relative phase between the forward and
rearward
> > voltages and/or the relative phase between the forward and rearward
> > currents.
>
> So we have a key down ham transmitter that sees a virtual open circuit.
Are you
> saying it won't dissipate any power while it maintains the standing waves?

I never said or meant to imply that a transmitter would dissipate 0 power
when connected to an open circuit.

As long as there is a closed path for current through a dissipative
impedance somewhere within the transmitter, power will be dissipated.

>I forgot to hook the antenna up to my
> ARC-5 one time and burned up the 1625's. You are mistakenly allowing your
model
> to try to dictate reality instead of the other way around. There is no
possible
> way to maintain standing waves on a transmission line without dissipating
power
> in the source.

>Most ham transmitters will fold back when looking into an open
> circuit for the purpose of keeping them from burning themselves up.

I'm aware of that.

>Your model
> does NOT correspond to reality.
>

I never said that the model I described represented a transmitter. It is
and was only intended to be a simple model for the purpose of describing
simple concepts. These concepts can be validly applied to the transmitter
if a correct and complete circuit model of the transmitter is constrcuted.

> If you can set such an experiment up on the bench, you can demonstrate
standing
> waves without a power source. Have you patented your magic energy machine
yet?

> I've got a picture of it on my web page at:
http://www.qsl.net/w5dxp/magic.gif

That's actually quite funny, however, it is not a figure from my QEX article nor does it represent the concepts associated with superposition as described in my QEX article. Fortunately, most other people on the NG probably understand the concepts of voltage and current superposition in circuit analysis.

Take care,

Steve VE9SRB

4121. vertical dipole mounting - high vs. low

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 22:40:56 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <uv4u7ponr9a89f@corp.supernews.com>
Source record: 129760

Greetings,

Surely this is an old topic. However, still interesting.

Take a vertical dipole, Force 12 Sigma 5 for example, is there benifit to mounting high - say on tower at 110 feet - versus low nnear ground.

Some say there is no benifit to mounting a vertical high, others say high is better - period.

Your thoughts?

Thanks.
Jim - KU5S

--

4122. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 22:41:15 UTC
From: tdonaly@aol.com
Message-ID: <20021207174115.01955.00000021@mb-cv.aol.com>
Source record: 129761

>
>Art Unwin KB9MZ wrote:
>> This "England " bit is somewhat of a distortion.
>
>Art, maybe you are just not up to date.
>
>Headlines from British papers tell the story:
>
>"Handgun crime soars despite Dunblane ban"… "Police move to tackle huge rise
>in crime"…
>"London gun murders tripled in 2001"… "Steep rise in violent crime"… "Top
>gangs getting
>more guns, warn police" ... "Handgun crime up despite ban"… "Gun crime rise
>in London"…
>"Gun crime trebles as weapons and drugs flood British cities."
>
>The London Evening Standard reported on Dec. 19, 2001, "Gun crime in London
>is rocketing,
>with increases of almost 90 percent in some firearms offenses, Scotland Yard
>reported
>today. New figures show London murders with guns increased by 87 percent in
>the first
>eight months of the year compared with the same period last year."
>--
>cheers, CAM http://www.qsl.net/w5dxp
>

Are you saying that the crime wave reported by British papers is caused by
UK gun laws? I suppose just passing a gun law is going to make people just
naturally want to go out and rob a liquor store. Do you think giving pistols
to
a bunch of paranoid retired guys will lower the crime rate like it's supposed
to
be doing in Texas?
73,
Tom Donaly, KA6RUH

4123. Re: COAX types and performance

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 22:58:00 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF27CF8.5030101@ieee.org>
Source record: 129762

Adam White wrote:
> I'm wondering how significant to me and my little application the
> various specifications will be -- I plan to use a little (less than
> 100 feet) COAX as feedline for a 20m dipole. I understand the
> importance of attenuation, but it appears to me that the attenuation
> for ANY of these cables on such a short run would not be a problem.
> But I'd like your thoughts on this.

Make the dipole 1/2 wavelength long and use a number of 1/2 wavelength
lengths of 450 ohm ladder-line with which to feed it at 14 cents per foot.
--
cheers, CAM http://www.qsl.net/w5dxp

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4124. Re: Balun question, please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 23:00:31 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF27D8F.5030704@ieee.org>
Source record: 129763

Thomas C. Sefranek wrote:

> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>Are you familiar with self resonance in mobile
>>antenna loading coils?
>
> Certainly, what's your point?
> I can demonstrate self resonance with ANY coil.

What's the self resonant frequency for 20 turns of coax?
--
cheers, CAM http://www.qsl.net/w5dxp

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4125. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 23:24:59 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF2834B.4090804@ieee.org>
Source record: 129764

VE9SRB wrote:
> I never said that the model I described represented a transmitter. It is
> and was only intended to be a simple model for the purpose of describing
> simple concepts. These concepts can be validly applied to the transmitter
> if a correct and complete circuit model of the transmitter is constrcuted.

So such concepts exist only in your mind and not in reality? If your concepts don't apply to amateur radio transmitters, why are you presenting them on an amateur radio newsgroup?

> That's actually quite funny, however, it is not a figure from my QEX article
> nor does it represent the concepts associated with superposition as
> described in my QEX article.

It's not a figure from your article, Steve. It only references a figure from your article. And of course it represents your concepts, Steve. You posted the equation 75W + 8.33W = 133.33W right here on this newsgroup about a year and a half ago before you published your article. You said in your article that you can take 61.24V@1.225A (75W) and combine it with 20.41V@0.408A (8.33W) to achieve 81.65V@1.63A (133.33W). That drawing is exactly what you have said diagrammed into a picture that is worth a thousand words.

Here's a quote directly from your QEX article: "In this case, the forward source power of 92.831 W combines in-phase with the re-reflected power of 0.555 W, resulting in a total forward traveling power of 107.736 W." Can you tell me any other scalar value in existence besides your magic power that can be added to obtain *greater* than the sum of the ingredients? Have you ever seen 92.831 gallons/sec combine with 0.555 gallons/sec to achieve 107.736 gallons/sec?
--
cheers, CAM http://www.qsl.net/w5dxp

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4126. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 23:32:35 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF28513.1070705@ieee.org>
Source record: 129765

Tdonaly wrote:
> Are you saying that the crime wave reported by British papers is caused by
> UK gun laws? I suppose just passing a gun law is going to make people just
> naturally want to go out and rob a liquor store.

Criminals always want to rob liquor stores. They don't do it very often
in Texas because they are likely to die. There is nothing to stop them
from doing so in England since they know the liquor store owner is probably
not armed and if the owner were to shoot them, the owner would be the one
going to jail. If you were a robber, would you rather rob an armed person
or an unarmed person?
--
cheers, CAM http://www.qsl.net/w5dxp

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4127. FS RF Transfer Relays

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 23:43:35 UTC
From: Mike Kulyk <mkulyk@optonline.net>
Message-ID: <HIvI9.8596$CU3.634@news4.srv.hcvlny.cv.net>
Source record: 129766
Cross-posted to: rec.radio.swap,rec.radio.amateur.antenna,misc.industry.electronics.marketplace,alt.ham-radio.uwave

K&L Transfer Switch TS-15-F-SMA-I-SD-DE9P-C+ (we have 6, new price was $316)

DC to 18GHz Coax Transfer Switch Failsafe Actuator with suppression diodes and indicators, 15VDC, 9 pin D sub-min interface, 0.5dB insertion loss max, Power Handling: 400W @ 100MHz, 175W @ 1GHz, 60W @ 10GHz.

$45 each

Pictures available by e-mail.

4128. Re: COAX types and performance

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 23:45:32 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF2881B.B9145154@cwis.net>
Source record: 129767

Adam,
As far as loss goes, any of the coax types you have listed should work okay. The RG-58 has the most loss so would be my third choice.
The kind of wire used for the center conductor (solid or stranded) has more bearing on how flexible the cable is rather than how well solid or stranded wires conduct. The stranded cable tends to be more flexible and a bit easier to work with.
The better the coax is shielded, the better off you are. If it's a matter of a couple of percentage points difference, I doubt if it makes a lot of difference on HF.
The maximum operating voltage tells you how much power you can run at a particular SWR. [V = SQR(SWR x Watts x Impedance)] Plug in some example numbers to that equation and see what the voltage is on your feed line. The closer the 'V' to the maximum voltage rating of the coax, the more likely you are to cause damage to the feed line (it's also smart to include a 'fudge-factor' in that max-voltage rating to give your self some safety margin).
'Doc

4129. Re: vertical dipole mounting - high vs. low

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-07 23:57:55 UTC
From: k9sqg@aol.com
Message-ID: <20021207185755.29445.00008743@mb-mg.aol.com>
Source record: 129768

What is the band or bands to which the question applies?

73s,

Evan

4130. Re: vertical dipole mounting - high vs. low

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 00:44:10 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <uv55eri7245h27@corp.supernews.com>
Source record: 129669

Hi,

This is only with respect to HF. VHF/UHF seems obvious. :-)

Thanks for pointing out the oversite.

Jim - ku5s
--

"K9SQG" <k9sqg@aol.com> wrote in message
news:20021207185755.29445.00008743@mb-mg.aol.com...
> What is the band or bands to which the question applies?
>
> 73s,
>
> Evan

4131. Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 00:56:07 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212071656.41ac05a3@posting.google.com>
Source record: 129670

Since Terman and his writings are refered to often on
this forum I grabbed a hold of Radio Engineering by Terman
to see what he had to say about properties of resonant.
circuits. What interested me was the portion titled
'Coupled circuits with Untuned Primary and Tuned Secondary.
By golly his discusssion describes exactly my antenna which
the Gurus on this forum reject! How can this be? As I look back I see
that mathematics has undergone change with the introduction of New
Math.

Is it possible that resonant circuits have undergone a similar
change at the hands of the modern Guru. He also draws the circuit
of such a coupling which exactly represents a coupled antenna
tho he gyrates more around the audio portion where the degree of
coupling between the circuits is fixed. I then looked to see what he
had to say
regarding a similar arrangement that resembled my next antenna but
with the
added use of varying coupling.
By golly he also talks of such an arrangement at length including
the critical coupling factor! Why is it that todays Gurus do not
accept what Terman states and have now come around to the point
that Termans findings now require proof.
Just to remind all of the UNWIN antenna it consists of a
random radiator like a dipole tho it may be fed differently to
the normal dipole which is normally at it's center.
This radiator can be drawn as a untuned circuit and matches that
drawing that Terman relates to. The second portion of my antenna
consists of a TUNED circuit just as Terman describes, which
also reflects a variable frequency loop antenna. This again is
exactly as shown in the fig shown by Terman.
He then goes on to discuss exactly what happens when both circuits
are tightly coupled which is the antenna I previously described.
He then goes on to describe the characteristics of such an arrangement
where the degree of coupling is changed which is exactly the path that
I am now taking by placing part of the Tuned Secondary circuit
away from the influence from variable coupling.
Would the Gurus on this forum please explain why Terman was
incorrect with respect to coupling of circuits even tho he
appeared accurate regarding the change in Q with respect to my
antenna compared to that of a loop antenna alone .
No one can be really infallable, but the modern Gurus are
suggesting exactly that in the past statements upon my antenna
which reflect Termans teachings has been subject to new

interpretation.
This posting is made because of the offer made by Roy a month
ago where he invited me to explain my antenna once again.
Roy is known to be a Guru and often referes to writings of
Terman as other Gurus do on this forum, so he as other Gurus are
well versed in "older" teachings on resonant circuits and
presumable the "new " changes in interpretation.
Best regards to all
Art Unwin KB9MZ....XG
LOOP circuyit with a variable capacitor

4132. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 01:16:13 UTC
From: tdonaly@aol.com
Message-ID: <20021207201613.23193.00010055@mb-mt.aol.com>
Source record: 129673

>
>Tdonaly wrote:
>> Are you saying that the crime wave reported by British papers is caused by
>> UK gun laws? I suppose just passing a gun law is going to make people just
>
>> naturally want to go out and rob a liquor store.
>
>Criminals always want to rob liquor stores. They don't do it very often
>in Texas because they are likely to die. There is nothing to stop them
>from doing so in England since they know the liquor store owner is probably
>not armed and if the owner were to shoot them, the owner would be the one
>going to jail. If you were a robber, would you rather rob an armed person
>or an unarmed person?
>--
>cheers, CAM http://www.qsl.net/w5dxp
>

At one time, in San Francisco, there were many, many, mom and pop grocery
stores. There were probably very few of them where the owner didn't keep a
gun behind the counter. They were held up on a regular basis and, yes, there
were robbers who were killed, but there were also store owners who met the
same fate. The point is, that stickup men are such a stupid breed
that the prospect of getting killed doesn't always enter into their
calculations.
My wife's father was killed in a holdup, but the fellows who killed him
didn't have much of a chance to enjoy the money they stole because
they were gunned down by cops a couple of days later trying to
rob another merchant. If I were a robber would I rather rob an armed person
or an unarmed person? I'd take up another profession before I'd do either.
73,
Tom Donaly, KA6RUH

4133. Re: COAX types and performance

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 01:17:42 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <v1OdnXNdeP2uAG-gXTWc3g@comcast.com>
Source record: 129672

Adam,

At 1500 W the peak voltage at 50 ohms is about 275 Volts. You should really look at the power spec, not voltage; high voltage RG58 will not take the power that corresponds to your Table. BTW, there is a version of LMR240 that is not Ultraflex. It is cheaper and lower loss than the flexible. The only thing I would not do with it is run run it around an antenna rotator. I have put a KW into it at 10-80 meters with no problems in a reasonable SWR circuit. I have also used 8X on 80 meters with a KW. The 240 is much better than the 8X for loss and shielding. Don't buy the old style 9913, if water gets in one end, it comes out the other. Note that there are several types of 9913. These are only a very small subset of RG8. RG213 is WW2 technology military RG8. Lastly, with a dipole, consider the weight.

Tam/WB2TT
"Adam White" <adam.white@sbcglobal.net> wrote in message
news:3df2542a.264773964@news.dallas.sbcglobal.net...
> Being new to the HAM game, living quite some distance from the nearest
> supplier of HAM components, and being tight on cash all encourage me
> to do as much homework as possible before buying items to build my HAM
> setup. Most recently I've been looking at COAX cable and I dug up the
> following statistics (listed in order): dB attenuation per 100 ft. at
> 10 Mhz, dB attenuation per 100 ft. at 50 Mhz, Impedence, Max
> operational Voltage, and price per foot at a local supplier.
>
> Belden RG-8/U (#9913): 0.40, 0.9, 300, n/a
> Belden RG-8/x (#9258): 0.90, 2.1, 300, $0.19 ***
> Belden RG-58/U Type (#9201): 1.10, 2.5, 1400, $0.22.
> Belden RG-213/U QPL (#8267): 0.55, 1.3, 3700, $0.55
> Times Microwave LRM-240 ultraflex: n/a, 1.9, n/a, $0.47
> *** Note: I'm assuming this is what is commonly called 8x-mini ???
>
> I'm wondering how significant to me and my little application the
> various specifications will be -- I plan to use a little (less than
> 100 feet) COAX as feedline for a 20m dipole. I understand the
> importance of attenuation, but it appears to me that the attenuation
> for ANY of these cables on such a short run would not be a problem.
> But I'd like your thoughts on this. The price difference between any
> of these options is not really significant (difference between $20 and
> $40) ... but now that I've started looking at these stats, my
> curiosity is aroused.
>
> And what about that "max operational voltage" number? Is that
> significant for a standard HF transceiver running no more than 1500
> watts?

>
> There's also the question of shielding. I did not include the spec's
> on shielding. Would the shielding on any of these cables be
> problematic for me?
>
> A final question: I noticed that some COAX has a single conductor and
> some of it has multiple strands. For example, the RG-8x listed above
> has 19 strands, while the others have only one. Aside from the price
> difference (stranded cables appear to me to cost about half of the
> amount for the same sized single-strand conductor), is there any
> meaningful difference between stranded conductors and single-strands?
>
> Thanks in advance.
> Adam
> kd5qae
>

4134. Re: fm antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 01:18:37 UTC
From: L Caracciolo <larryc@northwest.com>
Message-ID: <3DF29DED.E109C195@northwest.com>
Source record: 129671

As i recall, the FM band lies between Ch6 and CH7...so a Radio Shack TV antenna would also work. If you hv cable TV, have you tried connecting the cable to the radio?
=====

netvision wrote:

> I hope I am in the right place and I really hope some one can help me.
>
> I am quite a fan of FM radio stations but the problem is that poor reception
> is better then what I have where I live.
>
> can someone recommend a good antenna or reciver or amplifier in a decent
> price .
>
> thank you

4135. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 01:29:46 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Ms2dnU_t4tmaPW-gXTWc3w@comcast.com>
Source record: 129674

In case you are more confused, it is probably a 300 ohm balanced antenna, not meant for use with cable. There should be a couple of wing nuts or the like for connecting the 300 ohm twinlead to. To use cable, you need a 300 ohm to 75 ohm transformer, aka balun. Get the kind that has an F connector on one end, and pigtail wires on the other end. In case the nuts are missing, look for two bolts sticking out that the nuts may have been screwed on to. They will typically be an inch or two apart. Are there pieces of wire sticking out anywhere - if so, that's it.

Tam
"richie_r1ch" <richie_r1ch@hotmail.com> wrote in message
news:6ec14ee2.0212070135.4d0177e9@posting.google.com...
> I have an old yagi antenna on the roof and I want to start using it.
> It came with the house.
>
> It looks very similar to this one:
> http://www.channelmaster.com/layout_graphics/3014%20Antenna.jpg
>
> I want to run a coax cable "the type used for catv" from the antenna
> to my tv. The problem is I can't seem to find any places where a cable
> would be connected. Do I just strip it and wrap it around any element?
> Where does the middle wire go? and where would the braided wire that
> sorrounds it go?
>
> thanks

4136. Re: help with 70 cm beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 01:33:39 UTC
From: "Benjamin, KB9LFZ" <KB9LFZ@arrl.net>
Message-ID: <3df29e80$1_5@news.teranews.com>
Source record: 129683

A very good idea to get some real help and practical infomation would be is to check out the ARRL antenna handbook. I get a new one of those every two years. Very well worth the investment.

Good luck!

73 de KB9LFZ
~Benjamin

"Whovian" <smitty@gallifrey.zzn.com> wrote in message
news:Xns92DDA15A14CB9smittygallifreyzznco@216.168.3.44...
> Hi all, I would like to build a 70 cm multi element beam but I don't know
> how long to make the driver and elements or how far apart they should be
> spaced. I was hoping that someone here could help me out.
>
> thanx

4137. Re: Characterizing a commercial trap

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 01:37:45 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <C9GdneAaXrJ7PG-gXTWc3Q@comcast.com>
Source record: 129675

Nat,

Remember that V and I are complex numbers. So, if you have 1 V, and 1ma with a phase shift of 45 degrees, the impedance is 1K at -45 degrees, or 707 - j707. If you just want to measure loss, there are easier ways.

Tam/WB2TT
"Nat Gurumoorthy" <nat.gurumoorthy@ubicom.com> wrote in message news:41325e56.0212061205.77307fca@posting.google.com...
> I would like to characterize a commercial trap. Would the
> following circuit work. A sine wave generator is hooked
> up between A and Gnd. I use a 3 channel scope to monitor
> Voltage between A-B B-GND and A-GND. The voltage drop
> across the the 50 ohm will give me the current. Voltage
> drop across the trap divided by the current gives me
> |Z|. I can look at the phase shift to know if it is
> Inductive or Cpacitive.
> Questions: 1) Would this work?
> 2) Is there a simpler way to do it?
> 3) Are there any limitations to this method?
> 4) What are the possible error sources
> to watch out for?
>
> _______
> A B | |
> --.--/\/\/\/\--.---| Trap|
> 50 ohm | |
> -------
> |
> |
> ---
> - GND
> .
>
> Regards
> Nat AB6SJ

4138. 80 meter "Skywire Loop" antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 02:05:12 UTC
From: rckchp@comcast.net
Message-ID: <6dc33f40.0212071805.281d729d@posting.google.com>
Source record: 129676

I am going to try an 80 meter "Loop Skywire" antenna, as described in an article by Dave Fisher, W0MHS (he has a different call now)in the Nov 1985 issue of QST (also in some editions of ARRL Antenna Book and is available to members on the ARRL web site via search).

I'm going to try and keep it somewhat "stealthy", so I plan to use some #22 insulated wire. What I've got is a 1000' spool of twisted pair(insulated single strand tinned copper). An 80 meter loop will be approx 257.5' and it will be a bother to untwist that length, it has 1 twist every 2". Will there be any problems or "quirky" behavior if I leave it twisted.....just bare, twist and solder the ends? Also, the wires are white and orange....I'd like to soak the whole spool in black dye to make is less visable....any problems doing that? Has anyone done this? Thanks,

Rich K2CPE

4139. Re: Characterizing a commercial trap

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 02:19:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv5ehkdl6bb20f@corp.supernews.com>
Source record: 129682

What's an easy way to measure trap loss?

Roy Lewallen, W7EL

Tarmo Tammaru wrote:
> Nat,
>
> Remember that V and I are complex numbers. So, if you have 1 V, and 1ma with
> a phase shift of 45 degrees, the impedance is 1K at -45 degrees, or 707 -
> j707. If you just want to measure loss, there are easier ways.
>
> Tam/WB2TT

4140. Re: 80 meter "Skywire Loop" antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 02:22:55 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF2ACFF.902048DF@cwis.net>
Source record: 129677

Rich,
I don't think you would have any problems using the 'pair' like you said. With one of the wires being orange, you might want to 'un-twist' it to get rid of that color. I don't think you're going to have much luck dying it, or painting it. White should work out fairly 'stealthy'.
'Doc

4141. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 02:27:34 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF2AE16.F55A4796@cwis.net>
Source record: 129678

Art,
I really don't think anyone was refuting Terman. I
think it has more to do with how you relate ~your~
antenna to what Terman describes.
'Doc

4142. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 02:29:46 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <4pa5vuk7ecqpama3qer72d8a3ug03nulqa@4ax.com>
Source record: 129679

On Fri, 06 Dec 2002 16:51:33 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

|Ok, here's a case for consideration.

Now you're changing the parameters.

You asked, "If only sometimes, what are the necessary conditions?"

I replied,

"A = B

Where:

A is a generator with a good source match (Zg). For example Richard
Fry's solid-state amplifier with 20 dB return loss. In transmitters
this is often accomplished by using quadrature couplers with the
fourth port port terminated in a matched load, or at microwave,
isolators (terminated circulators). Reflected power is "dumped" into
this load. (But you know that <g>)

B is a transmission line with Zo equal to Zg."

I wasn't considering any other cases, only the above.

I've spent the last two days getting ready for and attending a ham
swapfest and while I was away I see a lot of other answers to what
follows. I'm just going to standby and watch <g>

|
|A = a generator consisting of a Thevenin source: a voltage source with a
|50 ohm series resistor. This is a good model of a laboratory signal
|generator of the type used for HF measurements. I'll make the open
|circuit voltage 141.4 volts RMS, which is the voltage of the voltage source.
|
|B = a lossless 50 ohm half wavelength transmission line.
|
|This is, wouldn't you agree, a situation where there's a perfect match
|at the input to the cable?
|
|First let's terminate the line with a 50 ohm load. The load will
|dissipate 100 watts. The reverse power on the line is zero. The
|dissipation in the source resistor is 100 watts. So here we have a
|situation where there's no reverse power, and the source resistor is
|dissipating 100 watts. The voltage source is producing the 200 watts
|being dissipated by the two resistors.
|

|Now open circuit the line. We find that the forward power is still 100
|watts. The reverse power is 100 watts. There is no load to dissipate
|power. The source is delivering no power. The source sees an open
|circuit. The dissipation in the source resistor is zero.
|
|Now, here's a case where clearly there's a perfect match between the
|source and the transmission line. There's 100 watts of reverse power on
|the line. Yet the source resistor is dissipating nothing. At least for
|the simplest case I can think of, a Thevenin source driving a matched
|line, the reverse power clearly isn't being absorbed or dissipated by
|the source resistor. In fact, when the reverse power went from zero to
|100 watts, the source resistor dissipation went from 100 watts to zero.
|
|If you put an isolator between the source and the line, it's a somewhat
|different story. Then, the source sees 50 ohms even when the line is
|opened at the far end. Consequently, the voltage source continues to
|produce 200 watts of power. 100 watts is dissipated in the source
|resistor and 100 in the isolator termination. I suppose it would be fun
|for some folks to argue whether the 100 watts dissipated by the source
|resistor is reverse power, whether the 100 watts dissipated by the
|isolator termination is the reverse power, or whether both are simply
|the the power being produced by the source. In fact, when you disconnect
|the line altogether, there's no longer any reverse power. And the
|dissipation in the source resistor stays at 100 watts and the isolator
|resistor at 100 watts. This makes it difficult to justify the need for
|reverse power to produce dissipation in the isolator termination. A
|simple explanation based entirely on load resistance will suffice, and
|it'll accurately predict the isolator termination dissipation regardless
|of line impedance or the amount of reverse power on the line. For
|example, if we connect the isolator to a 450 ohm half wavelength line
|terminated in 50 ohms, we'll have 278 watts forward and 178 reverse on
|the line, yet the isolator termination resistor will have zero
|dissipation. This is easily explained if you entirely ignore the reverse
|power and simply look at how the termination dissipation varies with
|load impedance. That holds true for *any* kind of steady state source,
|including an isolator or Thevenin source.
|
|The notion that reverse power is absorbed or dissipated by the load is a
|myth, based on misunderstanding of the phenomena involved. It's very
|easy to provide any number of examples to show it's simply not true.
|
|Roy Lewallen, W7EL
|
|
|Wes Stewart wrote:
|> On Fri, 06 Dec 2002 11:59:48 -0800, Roy Lewallen <w7el@eznec.com>
|> wrote:
|>
|> |Wes, how do you resolve this with the example I've posted several times
|> |now where an open circuited line has 100 watts of forward power, 100

|> |watts of reverse power, and no dissipation in the source resistance?
|> |
|> |I also posted an example yesterday where a 100 watt transmitter feeds a
|> |50 ohm load through a half wavelength of 450 ohm line, resulting in 278
|> |watts forward and 178 watts reverse on the line. Yet the source
|> |dissipation is exactly the same if you replace the 450 ohm line with a
|> |50 ohm line, with zero reflected power, or a line of any other impedance.
|> |
|> |In neither of these cases is the reflected power absorbed by the load.
|> |So is it only absorbed by the load sometimes and not always? If only
|> |sometimes, what are the necessary conditions?
|>
|> A = B
|>
|> Where:
|>
|> A is a generator with a good source match (Zg). For example Richard
|> Fry's solid-state amplifier with 20 dB return loss. In transmitters
|> this is often accomplished by using quadrature couplers with the
|> fourth port port terminated in a matched load, or at microwave,
|> isolators (terminated circulators). Reflected power is "dumped" into
|> this load. (But you know that <g>)
|>
|> B is a transmission line with Zo equal to Zg.
|>
|> I can see where this is not the usual ham radio case and the source Z
|> can be different from the Z looking back into the source. It is
|> however, what I was envisioning Richard Fry meant. (Comes from too
|> many years in a labortory where good source match is a requirement for
|> making good measurements of VSWR.)
|>
|>
|> Wes

4143. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 02:39:36 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <rmb5vu4pepp7v83ga0ntgend76vvbrjrk0@4ax.com>
Source record: 129680

On 7 Dec 2002 16:56:07 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>'Coupled circuits with Untuned Primary and Tuned Secondary.
>By golly his discusssion describes exactly my antenna which
>the Gurus on this forum reject! How can this be?

Hi Art,

Now, what was this "new" technology you discovered? And for the
leveler of all claims: does it amount to more than 1dB?

73's
Richard Clark, KB7QHC

4144. Self-resonant RF Chokes

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 03:09:54 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asud61$2lc$1@knossos.btinternet.com>
Source record: 129681

On this newsgroup the usual haggling contest is presently in progress. The subject matter is the natural resonant frequency of neatly-wound, single-layer, solenoids such as tank coils, loading coils, helical antennas, and of course RF chokes including the coaxial variety.

Program SOLNOID2, amongst other things, for given coil diameter, coil length, number of turns, ratio of wire diameter to winding pitch, calculates the resonant frequency in question. Principal input data can be varied up/down from the keyboard to adjust resonant frequency to any required value.

For anyone interested the calculating formulae used in the program is equivalent to -

Cself = Length / P / 74.25 picofarads where -

Length = Coil winding length in millimetres.

P = Ln(J + Sqrt(Sqr(J) + 1)) + 1 / J - Sqrt(Sqr(1 / J + 1) where -

J = Length / Dia / 2

Dia = Diameter in millimetres of coil between wire centres.

Resonant frequency = 159.2 / Sqrt(L * Cself) Megahertz.,

Where Cself is the equivalent shunt capacitance across the coil, and -

L = Coil inductance in microhenrys available from a variety of sources including program SOLNOID2 itself.

I hope I have not made a typing error in translating the above formula for Cself directly from program source code. It cannot be obtained from elsewhere. Copy it into your technical notebooks.

Self-resonant frequency can be accurately measured directly with an antenna analyser like Autek. Place a thin-wire, single-turn link-coupling around the center of the coil under test. Connect the link to the antenna analyser, on the Z range, via 9 to 12 inches of loosely-twisted pair. Vary frequency until a very sharp Z peak is observed on the analyser. If you are not careful you can miss it.

Yes, stray coil capacitance, contrary to Old Wives' baffle-gab and the manuals, yields a high Q. See it for yourselves !

Accuracy? Good enough for the intended purpose. As soon as any wires are connected to the coil under test its resonant frequency will decrease slightly. But probably not enough to worry about.

In the case of coaxial chokes the stray capacitance will be slightly increased by permittivity of the insulating jacket and Q will decrease relative to bare wire. Wire diameter and winding pitch are that of the coax braid.

Program SOLNOID2 has a number of other applications. For example its self-capacitance formulae is incorporated in program MIDLOAD, a very short centre-loaded dipole with additional end-loading wires.

Download from here -

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

4145. Re: help with 70 cm beam

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 04:06:28 UTC
From: derswede@aol.comspam.com
Message-ID: <20021207230628.04740.00000299@mb-fr.aol.com>
Source record: 129684

><smitty@gallifrey.zzn.com> wrote in message
>news:Xns92DDA15A14CB9smittygallifreyzznco@216.168.3.44...
>> Hi all, I would like to build a 70 cm multi element beam but I don't know
>> how long to make the driver and elements or how far apart they should be

Lots of plans on the 'Net. To start, try the quagi on 432/440. Here's a
reference to get you started:

http://www.geocities.com/garyntricia/quagi.html

Do a google.com search for quagi and 440 or 432. You'll get lots of hits. I'm
running a 12 ele quagi....took 3 hrs to build and I've had QSO's over 100 mi on
SSB (and alot farther via satellite!) using this antenna design.
A

4146. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 04:26:30 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <WRzI9.48864$hK4.4261207@bgtnsc05-news.ops.worldnet.att.net>
Source record: 129685

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DF2834B.4090804@ieee.org...

> It's not a figure from your article, Steve. It only references a figure
from
> your article. And of course it represents your concepts, Steve. You posted
> the equation 75W + 8.33W = 133.33W right here on this newsgroup about a
year
> and a half ago before you published your article. You said in your article
that
> you can take 61.24V@1.225A (75W) and combine it with 20.41V@0.408A (8.33W)
to
> achieve 81.65V@1.63A (133.33W). That drawing is exactly what you have said
> diagrammed into a picture that is worth a thousand words.
>
> Here's a quote directly from your QEX article: "In this case, the forward
source
> power of 92.831 W combines in-phase with the re-reflected power of 0.555
W,
> resulting in a total forward traveling power of 107.736 W."

And the two sentences immediately following this statement, that you
conveniently forgot to mention above, are the following:

"Again, it is significant to notice [note] that this "addition" of power is
determined entirely from the vector addition of forward voltage and current.
It must be understood that it is really the two forward voltages and
currents that combine, rather than the two forward powers."

>Can you tell me
> any other scalar value in existence besides your magic power that can be
added
> to obtain *greater* than the sum of the ingredients? Have you ever seen
92.831
> gallons/sec combine with 0.555 gallons/sec to achieve 107.736 gallons/sec?
> --

The discussion in the QEX article was in reference to the superposition of
two forward waves in a transmission line. The transmission line Zo in the
QEX example was 86.603 ohms.

Wave 1, when considered independently in the line, has an associated forward
voltage and power of 89.658 V and 92.821 W, respectively.

Wave 2, when considered independently in the line, has an associated forward
voltage and power of 6.935 V and 0.555 W, respectively.

When Wave 1 and Wave 2 are superimposed in the line at the same time, the total forward voltage is determined from the vector sum of 89.658 V + 6.935 V and therefore becomes 96.593 V (the voltages are in-phase). The total forward power is therefore equal to 107.736 W.

The point of my power addition statements was to demonstrate that when two forward waves superimpose in a transmission line, the total forward power cannot be determined from the algebraic sum of the individual powers (except when the waves are 90 degs out of phase) . Forwards powers do not superimpose algebraically. Forward voltages and currents superimpose algebraically (actually, they add as complex vectors).

My previous newsgroup statement that 75W + 8.33W = 133.33W, was made in reference to the in-phase superposition of two forward waves, one having an associated independent forward power of 75 W, the other having an associated independent forward power of 8.33 W. When these two waves superimpose, the total forward power becomes 133.33 W. Nothing more was implied by these statements.

I think its time for us to end this discussion on the superposition of power. I will not respond on this subject anymore on this newsgroup.

Steve, VE9SRB

4147. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 04:54:42 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF2D092.4000002@ieee.org>
Source record: 129687

VE9SRB wrote:
> "Again, it is significant to notice [note] that this "addition" of power is
> determined entirely from the vector addition of forward voltage and current.
> It must be understood that it is really the two forward voltages and
> currents that combine, rather than the two forward powers."

Bafflegab! Each wave contains a fixed amount of energy. If the voltage and current are in phase, that energy is V*I joules/sec. If the energies don't add up, then you are mentally violating the conservation of energy principle.

> The discussion in the QEX article was in reference to the superposition of
> two forward waves in a transmission line. The transmission line Zo in the
> QEX example was 86.603 ohms.
>
> Wave 1, when considered independently in the line, has an associated forward
> voltage and power of 89.658 V and 92.821 W, respectively.
>
> Wave 2, when considered independently in the line, has an associated forward
> voltage and power of 6.935 V and 0.555 W, respectively.
>
> When Wave 1 and Wave 2 are superimposed in the line at the same time, the
> total forward voltage is determined from the vector sum of 89.658 V + 6.935
> V and therefore becomes 96.593 V (the voltages are in-phase). The total
> forward power is therefore equal to 107.736 W.

You conveniently left out the energy involved in the interference pattern which is exactly the energy needed to balance the energy equation. Since the interference voltages and currents go to zero, they don't affect the voltage and current equations but they sure do affect the energy equation. Did you really think nobody would notice your slight of hand in attempting to disguise the re-reflected power as something else?

> The point of my power addition statements was to demonstrate that when two
> forward waves superimpose in a transmission line, the total forward power
> cannot be determined from the algebraic sum of the individual powers (except
> when the waves are 90 degs out of phase) . Forwards powers do not
> superimpose algebraically. Forward voltages and currents superimpose
> algebraically (actually, they add as complex vectors).

Powers add as simple scalar values. 92.821 gallons/sec plus 0.55 gallons/sec equals 93.376 gallons/sec, not 107.736 gallons/sec.

> My previous newsgroup statement that 75W + 8.33W = 133.33W, was made in
> reference to the in-phase superposition of two forward waves, one having an
> associated independent forward power of 75 W, the other having an associated
> independent forward power of 8.33 W. When these two waves superimpose, the

> total forward power becomes 133.33 W. Nothing more was implied by these
> statements.

You conveniently ignore the 50 watts of re-reflected power from the constructive interference pattern thus mentally violating the conservation of energy principle. The correct energy equation is 75W + 8.33W + 25W + 25W = 133.33W, where the two 25W values are two reflected powers involved in destructive interference. That makes the 50W of constructive interference re-reflected power. Everything except the 75W is re-reflected power. That fact makes about a dozen of your article statements false.

> I think its time for us to end this discussion on the superposition of
> power. I will not respond on this subject anymore on this newsgroup.

There's no valid way to add two scalar values to get more out of it than you put into it. You seem to have invented supersuperposing of powers.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4148. Re: COAX types and performance

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 04:57:48 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <BeGdnQ91s6tVTW-gXTWc3Q@comcast.com>
Source record: 129686

Here are some numbers for you, at 30 MHz, which is worst case for HF.

CABLE LOSS/100' POWER

RG58 2.5 DB 400W
RG8X 2.0 350
RG213 1.2 1800
9913 0.8 2200
LMR240 1.3 1490 (NOT Ultraflex)

The RG8X power rating is probably not meaningful, because every
manufacturere has their own version of that.

Tam/WB2TT

4149. Determining Modulation Transformer Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 05:02:17 UTC
From: azkb7ryu@aztec.asu.edu
Message-ID: <asujop$sd9$1@news.asu.edu>
Source record: 129688

- -

4150. AM Transmitter Project

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 05:05:58 UTC
From: azkb7ryu@aztec.asu.edu
Message-ID: <asujvmsdv1@news.asu.edu>
Source record: 129689

Hello,

I am working on an extremely low power (<<1W input) AM transmitter and have encountered several difficulties including how to determine the required impedance of the modulation transformer.

Any comments or suggestions on this or anything else (operating point etc) would be appreciated.

Thanks.

Joel
--

4151. VISITED LINKS IN 7.0

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 06:00:03 UTC
From: rong@computer.net
Message-ID: <3df2df4d.877384@news.computer.net>
Source record: 129691

Hi All,

I just upgraded from V4.7 to V7 . Is there any way to have already
visited links appear in a different color than unvisited links like in previous
Netscape versions ??? In 4.7, you use Edit/Preferences/colors--that's not there
in V7 .

RON
****
Ron Goldstein.....KA2IIA
STAY YOUNG---DRIVE A VINTAGE 427 CORVETTE.
KEEP YOUR MIND ACTIVE---BECOME AN AMATEUR RADIO OPERATOR.

REMEMBER, THERE ARE NO STRANGERS IN AMATEUR RADIO, ONLY FRIENDS
THAT WE HAVE NOT YET MET.
rong@computer.net******ka2iia@arrl.net

4152. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 06:30:02 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <KFBI9.6902$4j5.3300059@newssvr28.news.prodigy.com>
Source record: 129690

Art, I'm still not sure exactly what your antenna looks like. What pages in Terman were you referring to so that maybe we can figure out exactly what the antenna is al about?

Larry N8LP

"Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message news:85ed38d.0212071656.41ac05a3@posting.google.com...
> Since Terman and his writings are refered to often on
> this forum I grabbed a hold of Radio Engineering by Terman
> to see what he had to say about properties of resonant.
> circuits. What interested me was the portion titled
> 'Coupled circuits with Untuned Primary and Tuned Secondary.
> By golly his discusssion describes exactly my antenna which
> the Gurus on this forum reject! How can this be? As I look back I see
> that mathematics has undergone change with the introduction of New
> Math.
>
> Is it possible that resonant circuits have undergone a similar
> change at the hands of the modern Guru. He also draws the circuit
> of such a coupling which exactly represents a coupled antenna
> tho he gyrates more around the audio portion where the degree of
> coupling between the circuits is fixed. I then looked to see what he
> had to say
> regarding a similar arrangement that resembled my next antenna but
> with the
> added use of varying coupling.
> By golly he also talks of such an arrangement at length including
> the critical coupling factor! Why is it that todays Gurus do not
> accept what Terman states and have now come around to the point
> that Termans findings now require proof.
> Just to remind all of the UNWIN antenna it consists of a
> random radiator like a dipole tho it may be fed differently to
> the normal dipole which is normally at it's center.
> This radiator can be drawn as a untuned circuit and matches that
> drawing that Terman relates to. The second portion of my antenna
> consists of a TUNED circuit just as Terman describes, which
> also reflects a variable frequency loop antenna. This again is
> exactly as shown in the fig shown by Terman.
> He then goes on to discuss exactly what happens when both circuits
> are tightly coupled which is the antenna I previously described.
> He then goes on to describe the characteristics of such an arrangement
> where the degree of coupling is changed which is exactly the path that
> I am now taking by placing part of the Tuned Secondary circuit
> away from the influence from variable coupling.

> Would the Gurus on this forum please explain why Terman was
> incorrect with respect to coupling of circuits even tho he
> appeared accurate regarding the change in Q with respect to my
> antenna compared to that of a loop antenna alone .
> No one can be really infallable, but the modern Gurus are
> suggesting exactly that in the past statements upon my antenna
> which reflect Termans teachings has been subject to new
> interpretation.
> This posting is made because of the offer made by Roy a month
> ago where he invited me to explain my antenna once again.
> Roy is known to be a Guru and often referes to writings of
> Terman as other Gurus do on this forum, so he as other Gurus are
> well versed in "older" teachings on resonant circuits and
> presumable the "new " changes in interpretation.
> Best regards to all
> Art Unwin KB9MZ....XG
> LOOP circuyit with a variable capacitor

4153. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 06:32:04 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212072232.3ecc43cd@posting.google.com>
Source record: 129692

Cecil,
You are staing statistics that without explananation are meaningless
If there is a report that crime soared 100% with respect to guns one
must ask what number of crimes was the 100% refered to as just 100
crimes per year with the use of guns and then try to equate it for for
personal debating reasons
to say a state where it is normal to have ten times as many crimes per
capita with the use of guns and the increase this year was only 5%.You
just can't use
the statistics olone to justify any point that you want to make just
by playing with a statistic which alone is not related. It is just
like saying guns don't kill people it is people that kill people and
use that statement as a reasoning point for all to own guns. I
recognize that Americans have a history with respect to guns but this
same history is not carried by all countries. As a foreign born person
I could not argue one way or another but I can point to a place where
a statistic from one Country is completely irrelavent when compared to
the U.S. especialy when only percentages are used instead of actual
numbers.
I have not made this posting as an advocate for or against the
posession of guns, only the manipulation of information purely to
justify a particular argument. For me the mention of England made my
intrusion more necessary.
I would rather you state how many policemen in both countries per
capita where I believe it would show that more gun ownership in
England would bring the killings up to par with that in the U.S. but
then saying it that way would not bolster your position which you
tried to do by using statistics alone with out numbers. Enough said.
Regards
Art ....XG

meaningOC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DF25894.2070306@ieee.org>...
> Art Unwin KB9MZ wrote:
> > This "England " bit is somewhat of a distortion.
>
> Art, maybe you are just not up to date.
>
> Headlines from British papers tell the story:
>
> "Handgun crime soars despite Dunblane ban"ï¿½ "Police move to tackle huge rise in
crime"ï¿½
> "London gun murders tripled in 2001"ï¿½ "Steep rise in violent crime"ï¿½ "Top gangs
getting

> more guns, warn police" ... "Handgun crime up despite ban"ï¿½ "Gun crime rise in London"ï¿½
> "Gun crime trebles as weapons and drugs flood British cities."
>
> The London Evening Standard reported on Dec. 19, 2001, "Gun crime in London is rocketing,
> with increases of almost 90 percent in some firearms offenses, Scotland Yard reported
> today. New figures show London murders with guns increased by 87 percent in the first
> eight months of the year compared with the same period last year."

4154. Re: COAX types and performance

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 07:03:11 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF2EEAF.EB69563B@cwis.net>
Source record: 129693

Tam,
The power ratings for any coax is meaningless.
'Doc

4155. Re: Fractal Debate - Defamation

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 07:41:18 UTC
From: Eric Oyen - N7ZZT <eric.oyen@cox.net>
Message-ID: <pan.2002.12.08.00.42.30.273.7060@cox.net>
Source record: 129694

well,
I do find this commentary more than enlightening. I did a google search for relivant items myself and came up with only 1 item on anything published 9and the link you provided matched what I found). the rest of the stuff that popped up were, for the most part, archived snippets from this (and other) newsgroup(s).

I don't call being publisjed 1 time in :Communications Quarterly" to be sufficient credentials. I would believe thos credentials if they showed up in the IEEE journal, IEEE Spectrum magazine, Spread Spectrun Scene, ETRI Journal, and dozens of others I could name.

I'm sorry to say this about nathan cohen and chip (whatever his last name is) but when the chips are down (sic), they just don't measure up to the task. they talk a good line, but the SWR is just too high for them to radiate very far into the credible world.

If they were really interested in good solid research, they would have gotten a grant from the NSF or some private organizations, done the research and published verifiable results. thats the scientific method (remember? observe, test and revarify with independant testing from multiple sources).

Now, mind you, I'm no scientist. I am a security specialist in computer security concepts (firewalls, encryption, etc), so this area is not my specialty. However, I know a line of bullshit when I hear it. Fractenna needs to lay it down on the line, post some simple kit ideas (full description) and have some field tests done to verify the results. if they can't do this, then they are spounting pure, unadulterated bull.

no results = no credibility.

DE N7ZZT (Eric Oyen)
Phoenix, Arizona

In article <3DF241E2.7060305@telusplanet.net>, "Earth Wolf" <"Earth Wolf"@telusplanet.net> wrote:

> I've looked at the Fractal Antenna web site and can find nothing on
> there which gives any explanation of how this antenna works, or why it's
> supposedly superior to any other technology.
> I looked up one of the patents they hold, but like many patents, it is
> devoid of any actual information about how the technology works.
> Unfortunately, this isn't anything new - for years, the US Patent Office
> has issued patents for things that simply don't work, or at least don't
> work very well.
> I think there was a guy who invented the "Rubik's Cube", years before

> Professor Rubik did. His version of the cube used rubber bands which got
> twisted up inside and wore out very quickly. Nevertheless, he was able
> to sue the American manufacturers of the Rubik's Cube for millions of
> dollars, even though they didn't use any of his technology, just the
> idea (which Rubik came up with independently).
> Moral: if you have an invention, patent it - even if it doesn't work. If
> some genius later on manages to find a way to make it work, you can sue
> him for "patent infringement". But I digress.
> The only supposedly technical paper I can find describing this
> technology is now available as a reprint - for the paltry sum of $25 US.
> The fact that Dr. Cohen seems to think that a technical paper he wrote 7
> years ago for Communications Quarterly is worthy of such collector
> status makes me question his understanding of the scientific method. I
> can buy the entire set of Communications Quarterly magazine from 1990 to
> 1999 on CD-ROM for $39.95, for crying out loud
> http://www.radio-ware.com/books/ar-cdcq.htm
> assuming it's the same Communications Quarterly. If it is, then it does
> not appear to me to be a refereed journal.
> I read the first page of the reprinted article (that's available for
> free) but it contains nothing of substance, except what I consider a
> mistake near the bottom of the page, where Dr. Cohen states
> "Constructions of 'classic' (Euclidean) geometry have dominated
> [continued on next page, which I don't have]". If he's saying that
> constructions of Euclidean geometry have dominated antenna design, this
> is no more relevant than saying they've dominated table manufacturing;
> most tables are circular, square, rectangular, or occasionally
> triangular. But I don't think the principles of Euclidean geometry have
> much to do with antenna design, beyond pointing out that every physical
> object must have a shape, and some shapes are better suited to antenna
> construction than others.
> In accordance with a first aspect of the present invention, there is
> provided a transportation facilitation device including a circular rim,
> a bearing in which a hollow cylindrical member is rotatable about a rod
> situated within the hollow cylindrical member, and a series of
> connecting members connecting the circular rim with the hollow
> cylindrical member to maintain the circular rim and the hollow
> cylindrical member in substantially fixed relation, wherein the rod is
> positioned on an axis perpendicular to the plane of the circular rim,
> and substantially central of the circular rim.
>
> Abstract from John Keogh's successful 2001 application for an Australian
> patent (Innovation Patent #2001100012) for the "Circular transportation
> facilitation device" aka "wheel".

--
the difference between intelligence and stupidity is that intelligence
has its limits.

4156. Re: Balun question, please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 09:29:34 UTC
From: F8BOE Olivier <f8boeNOSPAM@free.fr>
Message-ID: <3df3116a$0$20686$626a54ce@news.free.fr>
Source record: 129695

Hello,

A balun is necessary for any Symetric antenna fed by coaxial cable.

And if you had 5/8 cable, would you want to wind it?
No surely not! Don't waste your cable lengths.

Just put ferrite tubes over your RG8, 6 or 8 in. long should be right. Here in France I found the right ferrite tubes by Radio Spares Components they are 5 cm long and fit just over RG-213 or RG-8 cable.

73 de F8BOE Olivier ...-.-

4157. Re: 80 meter "Skywire Loop" antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 12:03:50 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asvcf5sot1@helle.btinternet.com>
Source record: 129696

An antenna made with a twisted pair will allow a remote relay (inserted in the antenna wire) to be operated from a DC supply and an RF choke in the shack.

By isolating the wire beyond the relay a single relay contact can change resonant frequency from one band to another. Positive in action. No fiddling about pruning antenna traps. Use a reed relay which has very low capacitance between contacts. Use vaccuum filled type for high power.

Been there. Done that.

Reg, G4FGQ

4158. Re: Very Interesting Indeed...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 12:12:03 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <nGGI9.14419$903.4990@nwrddc02.gnilink.net>
Source record: 129697

How about a fertilizer that increases ground conductivity to the point where radials aren't required? Now that would be "Very Interesting Indeed..."

'73 KI4Z
"Kenny Hammond" <kh@jetinvest.com> wrote in message
news:021119235131136O@9.222.11.192.in-addr.arpa...
November 20 , 2002 1:18 am The Investors' Edge *****Undervalued Equities***** VICI-OTCBB Victor Industries,Inc.-Missoula,MT "Showing The World How Green We Are" Current Price: .013 Bid: .013 Ask: .015 The Company: Victor Industries, Inc. is engaged in the manufacturing & sale of Commercial grade fertilizer, fertilizer batteries, & the detoxification of ground water & wellwater. (Removal of harmful nitrates & radioactive particles) The Company administrator & President have just returned from a publicly held trade show in Portland, OR & have established relationships & have signed distribution agreements with three major wholesalers who intend to begin distribution of ENVIROLIZER : Victor Industries' Legendary fertilizer solution designed for commercial & private use. The company is about to release their new list of distributors (Very shortly) ENVIROLIZER Guarantees 55% Increase in growth: Crops, Greens, Vinyards & Flower Gardens; As well as a 38% reduction in watering. An Excellent solution for Farmers & Gardeners Worldwide. "A 62% increase in growth at one of California's finest vinyards!" As Published in: The American Vinyard, June 02 "Satisfaction Guaranteed or your Money Back!" Victor Industries stands by their product and will repurchase any unused portions. Proposed commitment from wholesale chain: 475 Tons Per Month Price Per Ton: $1,200.00 Gross Revenue: $570,000. Per Month & $6,840,000. Annually Current Revenue: $1,800,000. Projected Gross Revenue Per Share: $.1273 (With New Contracts) Projected Net Revenue Per Share: $.098 Projected EBIT per share (Earnings Before Interest & Taxes): $.074 Projected Net Earnings per share: .042 Projected Market Price: 15 Times Earnings=$.63 Per Share Within 90 Days At .013 it's tremendously undervalued. All replies to: www.victorindustries.com This news release may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, such statements are subject to risks and uncertainties that could cause actual results to vary materially from those projected in the forward-looking statements. The Company may experience significant fluctuations in operating results due to a number of economic, competitive and other factors. These factors could cause operation results to vary significantly from those in prior periods, and those projected in forward-looking statements. Information with respect to these factors which could materially affect the company and its operations are included on certain forms the company files with the Securities and Exchange Commission.

4159. Re: Characterizing a commercial trap

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 12:20:40 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asvdeo$c2t$1@venus.btinternet.com>
Source record: 129698

"Roy Lewallen" wrote -
> What's an easy way to measure trap loss?
==========

There isn't one unless the measurer suffers from delusions.

Far less expensive, many times faster and more than sufficiently accurate to calculate it.

Reg, G4FGQ
>

4160. Re: COAX types and performance

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 12:42:24 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asvenf$j2p$1@knossos.btinternet.com>
Source record: 129699

"'Doc" wrote -
> Tam,
> The power ratings for any coax is meaningless.
==========

Doc, you slightly exaggerate what the manufacturers say. Of course, safe load depends on whether the cable is to be used in Guatemala in mid-summer at noon, or Alaska in mid-winter at midnight.

For more informative data on solid polyethylene coax power ratings versus frequency, swr etc., indoors/outdoors, wind, ambient temperature, download program COAXRATE from website below.

Reg G4FGQ

4161. PL259 & barrel connector loss?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 13:10:24 UTC
From: carkenord@juno.com
Message-ID: <4346b55e.0212080510.22c5b5a2@posting.google.com>
Source record: 129700

Lets say I have a 100 foot piece of 50 ohm coax, to be used at 30 Mhz. Lets also say that this piece of coax has a measured loss of 2 Db at 30 Mhz.

Now I take this piece of coax and cut it into 2 pieces. I then install 2 each PL259's, and splice the cable back together with a barrel connector.

The loss of this 100 foot cable with the splice would now measure approx what at 30 Mhz?

Lee Carkenord KA0FPJ

4162. CORRECTION TO FORMULA

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 13:20:42 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asvgv9him1@venus.btinternet.com>
Source record: 129701

In the preceding formula for self-resonant frequency of a solenoid the diameter of the coil is incorrectly specified. Diameter is NOT that between wire centers. It is 1 wire diameter greater than that.

==========

Stated alternatively, correct overall coil diameter to be inserted in formula is -

Dia = External former diameter + Twice wire diameter.

Dimensions in milli-metres.

Very sorry. When the 'wire' is coax braid an appreciable error could have been caused.

Reg, G4FGQ

4163. Re: PL259 & barrel connector loss?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 13:21:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv6hranv36v8be@corp.supernews.com>
Source record: 129702

2 dB. Unless maybe you use one of those cheapo barrel connectors with a steel spring inside.

Roy Lewallen, W7EL

Lee Carkenord wrote:
> Lets say I have a 100 foot piece of 50 ohm coax, to be used at 30 Mhz.
> Lets also say that this piece of coax has a measured loss of 2 Db at
> 30 Mhz.
>
> Now I take this piece of coax and cut it into 2 pieces. I then
> install 2 each PL259's, and splice the cable back together with a
> barrel connector.
>
> The loss of this 100 foot cable with the splice would now measure
> approx what at 30 Mhz?
>
> Lee Carkenord KA0FPJ

4164. Re: Very Interesting Indeed...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 13:32:29 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asvhlding1@venus.btinternet.com>
Source record: 129703

"Mark Hall" wrote -
How about a fertilizer that increases ground conductivity to the point where
radials aren't required? Now that would be "Very Interesting Indeed..."
======================

Just change from being a vegetarian to eating only salt-water fish.

4165. Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 13:40:48 UTC
From: Truckdrivingman <truckdrivingman@hotmail.com>
Message-ID: <asvi54$uel3f$1@ID-137411.news.dfncis.de>
Source record: 129704

Hi OMs
May someone tell me the gain of the Solarcon Antron99 ? I've heard something of 6.88 dBi.Is this correct ?

73
Tom

4166. Re: COAX types and performance

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 13:44:45 UTC
From: Bill M <"\\exray\"\"\"@n-o- .caribe.net>">
Message-ID: <uv6j4orc2in40d@corp.supernews.com>
Source record: 129705

Reg Edwards wrote:
> "'Doc" wrote -
>
>>Tam,
>> The power ratings for any coax is meaningless.
>
> ==========
>
> Doc, you slightly exaggerate what the manufacturers say. Of course, safe
> load depends on whether the cable is to be used in Guatemala in mid-summer
> at noon, or Alaska in mid-winter at midnight.

Well.....how's this...
Suffice it to say that one doesn't want to run 1500 watts using RG58 or
8X in either condition.

-BM

4167. Re: 80 meter "Skywire Loop" antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 13:46:43 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <jgi6vuk6ofdd6bto3tiba4lj4c2hn7pfi8@4ax.com>
Source record: 129706

On Sun, 8 Dec 2002 12:03:50 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

[snip]

| Use "vaccuum filled" type for high power.

I don't believe I've seen these before. Are they manufactured in the
UK or do you homebrew them?

If we were to build our own, how would we fill the relay with
"vaccuum", just pour it in or what?

Will there be a downloadable in a few seconds -- not zipped-up -- run
immediately -- user friendly program to design these?

Wes N7WS

Sorry, sometimes I just can't help myself.

4168. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 13:47:07 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF35B9C.F877BE43@townsqr.com>
Source record: 129707

Art Unwin KB9MZ wrote:

> How many policemen have been shot and killed by those that carry guns?

Of those who were, virtually all were by persons who possessed the gun illegally.
More laws for them to ignore will help that?

>
> Many criminals will carry a baseball bat to accomplish acts of
> violence rather than take the chance of increased sentences incurred
> by carrying a gun.

Art, I spent 30 years working with the police and I can't recall a single case where the perp
was armed with a baseball bat. I do remember one where the robber was armed with a large snapping turtle with which he threatened a store clerk. Should we outlaw turtles?

>
> The situation or discussion regarding the carrying of arms is fine but
> clogging the discussion by bringing England into it is just not
> relevent.

Begging your pardon, it is indeed relevant merely by example of a path to NOT be followed, as
is Australia. Too bad those folks didn't have forbears with the forsight to demand a Bill of
Rights.

> Art

4169. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 13:50:37 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF35C6F.43BC6ADB@townsqr.com>
Source record: 129708

Tdonaly wrote:

> >
> >Art Unwin KB9MZ wrote:
> >> This "England " bit is somewhat of a distortion.
> >
> >Art, maybe you are just not up to date.
> >
> >Headlines from British papers tell the story:
> >
> >"Handgun crime soars despite Dunblane ban"â□¦ "Police move to tackle huge rise
> >in crime"â□¦
> >"London gun murders tripled in 2001"â□¦ "Steep rise in violent crime"â□¦ "Top
> >gangs getting
> >more guns, warn police" ... "Handgun crime up despite ban"â□¦ "Gun crime rise
> >in London"â□¦
> >"Gun crime trebles as weapons and drugs flood British cities."
> >
> >The London Evening Standard reported on Dec. 19, 2001, "Gun crime in London
> >is rocketing,
> >with increases of almost 90 percent in some firearms offenses, Scotland Yard
> >reported
> >today. New figures show London murders with guns increased by 87 percent in
> >the first
> >eight months of the year compared with the same period last year."
> >--
> >cheers, CAM http://www.qsl.net/w5dxp
> >
>
> Are you saying that the crime wave reported by British papers is caused by
> UK gun laws? I suppose just passing a gun law is going to make people just
> naturally want to go out and rob a liquor store. Do you think giving pistols
> to
> a bunch of paranoid retired guys will lower the crime rate like it's supposed
> to
> be doing in Texas?

Call it as you see it, but check the statistics. If they don't lie on other subjects it's mysterious why they should be so flawed in your view on this subject.

Dick

4170. Re: Characterizing a commercial trap

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 13:50:55 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <JVHUcyA$4089EAci@ifwtech.co.uk>
Source record: 129710

Reg Edwards wrote:
>"Roy Lewallen" wrote -
>> What's an easy way to measure trap loss?
>==========
>
>There isn't one unless the measurer suffers from delusions.
>
>Far less expensive, many times faster and more than sufficiently accurate to
>calculate it.

For a yagi trap, which uses distributed capacitance and is made from
unknown materials, just how would you be calculating the loss or the
power handling capability?

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

4171. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 13:51:42 UTC
From: richardharrison@webtv.net
Message-ID: <28966-3DF34E6E-305@storefull-2312.public.lawson.webtv.net>
Source record: 129713

CAM wrote:
"There`s no valid way to add two scalar values to get more out of it
than you put into it."

That should be self-evident.

For about half a century, Bird has done very well with scalars:
Load Power = Transmitter power =
Forward power - Reflected Power

Best regards, Richard Harrison, KB5WZI

4172. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 13:51:51 UTC
From: fractenna@aol.com
Message-ID: <20021208085151.27641.00010911@mb-mf.aol.com>
Source record: 129709

Someone commented about an LP being fed from the back (longest part) . That would be fascinating to see. Any references? Or is there just confusion on where the coax is exited versus where it is fed?

73,
Chip N1IR

4173. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 14:05:23 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF35FE4.29DB78FC@townsqr.com>
Source record: 129711

Tdonaly wrote:

>that stickup men are such a stupid breed

> that the prospect of getting killed doesn't always enter into their
> calculations.

Usually it does unless they're whacked out on some substance, then all bets are off. But then I'd be even more determined to defend myself since the drug crazed seem to often be more likely to shoot the victim for no reason.
Those people when not drugged are actually mostly cowards. They don't relish the idea of being shot by a victim. But if they know the victim is not likely to be armed because the law forbids him from it that gives them all the assurance and encouragement needed. The idea that he might have to face some store owner's blunderbuss IS daunting, even to the stupid.

>
> If I were a robber would I rather rob an armed person
> or an unarmed person? I'd take up another profession before I'd do either.

Of course. But that doesn't change the fact that robbers prefer unarmed victims for a very good reason. It stacks the deck very much in their favor.

Dick

4174. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 14:08:53 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF360B5.2EDDABE4@townsqr.com>
Source record: 129712

Hey Art, percentages of crime increase are not numbers? Scotland Yard's very own numbers? Gee, any
other time and on any other subject they would be revelant.

Dick

Art Unwin KB9MZ wrote:

> I would rather you state how many policemen in both countries per
> capita where I believe it would show that more gun ownership in
> England would bring the killings up to par with that in the U.S. but
> then saying it that way would not bolster your position which you
> tried to do by using statistics alone with out numbers. Enough said.
> Regards
> Art ....XG
>
> meaningOC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DF25894.2070306@ieee.org>...
> > Art Unwin KB9MZ wrote:
> > > This "England " bit is somewhat of a distortion.
> >
> > Art, maybe you are just not up to date.
> >
> > Headlines from British papers tell the story:
> >
> > "Handgun crime soars despite Dunblane ban"ï¿½ "Police move to tackle huge rise in
crime"ï¿½
> > "London gun murders tripled in 2001"ï¿½ "Steep rise in violent crime"ï¿½ "Top gangs
getting
> > more guns, warn police" ... "Handgun crime up despite ban"ï¿½ "Gun crime rise in
London"ï¿½
> > "Gun crime trebles as weapons and drugs flood British cities."
> >
> > The London Evening Standard reported on Dec. 19, 2001, "Gun crime in London is
rocketing,
> > with increases of almost 90 percent in some firearms offenses, Scotland Yard reported
> > today. New figures show London murders with guns increased by 87 percent in the first
> > eight months of the year compared with the same period last year."

4175. Re: fm antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 14:50:33 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <cVvzPStZ4itJSBr1nZqsTt1d5v=9@4ax.com>
Source record: 129714

"netvision" <erez_rz@netvision.net.il> wrote:

>I hope I am in the right place and I really hope some one can help me.
>
>I am quite a fan of FM radio stations but the problem is that poor reception
>is better then what I have where I live.
>
>can someone recommend a good antenna or reciver or amplifier in a decent
>price .
>
>thank you
>

The antenna is probably more important than the receiving equipment. Check you
local Radio Shack. They have simple indoor FM antennnas, as well as a couple of
outdoor FM beam antennas that would go on your roof.

Bob
k5qwg

4176. Re: vertical dipole mounting - high vs. low

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 14:54:08 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <XFzzPRUFvDu5P9tMshxGseAnjKLA@4ax.com>
Source record: 129715

"J Tabor" <denews@taborsoft.com> wrote:

>Greetings,
>
>Surely this is an old topic. However, still interesting.
>
>Take a vertical dipole, Force 12 Sigma 5 for example

According to the QST review, the manufacturer recommends not mounting the Sigma 5 too high above ground. They also recommend bringing the feedline out, horizontally, from the antenna, which might be tricky on a tower mounting, maybe not.

Bob
k5qwg

>, is there benifit to
>mounting high - say on tower at 110 feet - versus low nnear ground.
>
>Some say there is no benifit to mounting a vertical high, others say high is
>better - period.
>
>Your thoughts?
>
>Thanks.
>Jim - KU5S

4177. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 15:19:48 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <oqJI9.49520$hK4.4314916@bgtnsc05-news.ops.worldnet.att.net>
Source record: 129716

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DF2D092.4000002@ieee.org...

One final comment on superposition:

<a lot snipped>

>
> Powers add as simple scalar values.
>

Not in the superposition of multiple vector voltages and currents in a
single impedance.

>
> There's no valid way to add two scalar values to get more out of it than
you
> put into it. You seem to have invented supersuperposing of powers.
> --

In the superposition of multiple vector voltages and currents, it is the
multiple individual vector voltages and currents that add, not the multiple
individual scalar powers.

Power is a scalar quantity determined from the |V|^2/R, the |I|^2 R or the
product of |V| |I|, assuming that the impedance is a pure resistance R.

Lets work with voltages.

When two vector voltages (V1 and V2) add, the magnitude of the total voltage
(a scalar value) will never exceed the sum of the magnitudes of the
individual voltages (a scalar quantity). I.e., the vector voltage Vtotal =
V1 + V2 and |Vtotal| can never be greater than |V1| + |V2|.

The same is not true for the square of the magnitude of the voltages, which
is the scalar power. I.e. The vector voltage Vtotal = V1 + V2 and
|Vtotal|^2 can be greater than |V1|^2 + |V2|^2. Its also true that
|Vtotal|^2 can be equal to or less than |V1|^2 + |V2|^2.

For this reason, superposition of individual scalar powers cannot be used to
determine the total scalar power resulting from the vector addition of two
vector voltages and currents.

In vector superposition, Ptotal is not equal to P1 + P2, unless the
associated vector voltages, V1 and V2 are 90 degrees out of phase.

Steve VE9SRB

4178. RF in the shack questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 15:37:05 UTC
From: chvl67ss@adelphia.net
Message-ID: <4c3de24d.0212080737.51edff2e@posting.google.com>
Source record: 129717

I am running a mosely tr-33 beam on a 45ft tower I get alot of rf feedback in my audio on 10-15 and some parts of 20 meters, is there a coax choke that I can make to cure it for the 3 bands? I have other antennas for 17& a 10 verticle and they do not bother but they are not on the same tower, I have run at least 5 different radios and they all do it, one other thing is that my tower runs up the wall outside right behind the radio so when I'm using the mosely the radio is directly under the antenna(45ft) should that be ok? I could possibly move the tower behind the garage but it would still only be about 30ft away and most of you know its no simple job to move a tower, I have read about people making coax chokes but they all seem to have different turns and diameters, is there one size coax choke that that I can make to cure all 3 bands? any help would be great Dale Kb1eod

4179. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 16:10:23 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asvqte$5bd$1@venus.btinternet.com>
Source record: 129718

> For about half a century, Bird has done very well with scalars:
> Load Power = Transmitter power =
> Forward power - Reflected Power
>
> Best regards, Richard Harrison, KB5WZI
>
==========

Do Bird make SWR meters, ie., a meter with a scale graduated in SWR - or
have thay got more sense?

4180. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 16:39:31 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212080839.fd15a56@posting.google.com>
Source record: 129619

'Doc <w5lz@cwis.net> wrote in message news:<3DF2AE16.F55A4796@cwis.net>...
> Art,
> I really don't think anyone was refuting Terman. I
> think it has more to do with how you relate ~your~
> antenna to what Terman describes.
> 'Doc

Yes you are absolutely correct
Because of my inexperience in antennas and relative nomenclature
I have been unable thru the years to communicate efficiently
with those that are knoweledgable in the field.
This has bred fraustration every year when I try to make a fresh start
in openly discussing my antenna. Now, just when my determination
started
to wane I read Termans explanations regarding 'resonant circuits.'
Now at last I have a vehicle to travel on of which every one is aware
so that
the antenna subject can be 'contained' and with the same nomenclature
used to explain what I have (or at least what I think I have). It is
this that gives me hope that we or I will be allowed a fresh start.
In TERMAN'S type nomenclature I have a RANDOM length dipole
radiator which for the most part can be considered a UNTUNED radiator,
since in the main there is reactance present and thus it is generaly
UNTUNED. At this point I really don't care how one feeds such a thing
tho I chose to use a delta feed.
I then joined (COUPLED) it to a TUNED circuit which in my case was a
LOOP
antenna with a additional variable capacitor for TUNING. I then
COUPLED both circuits together such that at least a third of the TUNED
circuit was in direct contact with the UNTUNED circuit. When using
this co-joined antenna I found that
the best of LOOP antennas came into play without the hinderance of
inefficiency
and narrow bandwidth e.t.c., especially so when I migrated towards top
band.
When I migrated the other way with respect to frequency the UNTUNED
circuit took on more of the role in radiation by using the TUNED
circiut to enact a phase change on the dipole such that radiation
lobes became mainly IN PHASE.
This is what I found, but I had no way of knowing or recognizing what
was an error and what was not (faulty connectors ?)
Now for the first time I believe I have explained it well enough so we
can have a reasonable discussion based on TERMAN and with the past put
aside.

This is what I am hoping for ! What does Terman and the Gurus and
others say
should have taken place in using such an antenna over varied
frequencies ?.
Doc, what do you think I should have expected with such an arrangement
that I experimented with ?
Best Regards
Art KB9MZ.....XG

4181. Re: Characterizing a commercial trap

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 16:50:06 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <asvt7teft1@knossos.btinternet.com>
Source record: 129620

It is impossible to determine anything about anything which is made from unknown materials.

But for an electrical device which appears to be made from ordinary materials an ordinary practical person would just put the expected amount of power into it, hold his palm against it, and if after a minute or two it was no more than pleasantly warm he would declare it suitable for the purpose intended and sign the certificate. 'Measurements' completed satisfactorily!

As for estimating loss for a given Tx power, in ordinary L and C traps including distributed C in the coil, I would use program TRAPDIP.

This program estimates trap loss at the two different resonant frequencies of a trapped dipole. Greatest uncertainty is due to coil Q.

For coaxial distributed-C traps programs COAXTRAP and COAXRATE would be useful.

As for power handling capability it is necessary to know the thermal properties and limitations of all the construction materials, plus the greatest expected ambient temperature, plus details of radiative and convective properties, wind velocity, etc.

Clearly this would involve 100 times more work than the rest of the program put together for hardly any more return on the effort than could be obtained from guess work after looking at it for a minute or two.

A safety factor is always involved when specifying power handling capabilities.

As for yagi traps, if they are what I think they are then the power handling capability is limited by the breakdown voltage.

Ian, your question is too vague to answer unless the required degree of accuracy is stated. You havn't said at what altitude above sea level the traps are required to work.

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

4182. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 17:11:28 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212080911.63dec23c@posting.google.com>
Source record: 129621

Book. Radio Engineering, Terman, Second Edition
Chapter....Properties of Resonant Circuits.
Page 77
Subheading
'Coupled Circuits with Untuned Primary and Tuned Secondary.'

I do not have 'all' of Termans books but I suspect the subject will be
stated
the same in most books (It certainly is not mentioned in all) but with
the possibility that illustrations or Figs may well be renumbered.
Please refer to the response on this thread to Doc regarding physical
description.
Many thanks for your interest, I consider your presence a huge asset

Art

"Larry Phipps" <larry@telepostinc.com> wrote in message
news:<KFBI9.6902$4j5.3300059@newssvr28.news.prodigy.com>...
> Art, I'm still not sure exactly what your antenna looks like. What pages in
> Terman were you referring to so that maybe we can figure out exactly what
> the antenna is al about?
>
> Larry N8LP
>
>
> "Art Unwin KB9MZ" <aunwin@insightbb.com> wrote in message
> news:85ed38d.0212071656.41ac05a3@posting.google.com...
> > Since Terman and his writings are refered to often on
snip
> well versed in "older" teachings on resonant circuits and
> > presumable the "new " changes in interpretation.
> > Best regards to all
> > Art Unwin KB9MZ....XG
> > LOOP circuyit with a variable capacitor

4183. Re: RF in the shack questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 17:20:41 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <0hKdnY7SLad4426gXTWcpQ@comcast.com>
Source record: 129622

Dale,

I used to have a TA33Jr 30 feet directly above the shack. With 100 W, all I had, there was no problem. I used a BN86 balun. Make sure the radio is grounded. I also had a lightning arrestor on the coax at the bottom of the tower, this grounded the shield of the coax.

Tam/WB2TT
"Dale" <chvl67ss@adelphia.net> wrote in message
news:4c3de24d.0212080737.51edff2e@posting.google.com...
> I am running a mosely tr-33 beam on a 45ft tower I get alot of rf
> feedback in my audio on 10-15 and some parts of 20 meters, is there a
> coax choke that I can make to cure it for the 3 bands? I have other
> antennas for 17& a 10 verticle and they do not bother but they are not
> on the same tower, I have run at least 5 different radios and they all
> do it, one other thing is that my tower runs up the wall outside right
> behind the radio so when I'm using the mosely the radio is directly
> under the antenna(45ft) should that be ok? I could possibly move the
> tower behind the garage but it would still only be about 30ft away and
> most of you know its no simple job to move a tower, I have read about
> people making coax chokes but they all seem to have different turns
> and diameters, is there one size coax choke that that I can make to
> cure all 3 bands? any help would be great Dale Kb1eod

4184. Antenna Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 17:23:46 UTC
From: Robert11 <rgsrose@tiac.net>
Message-ID: <asvvdope1@slb5.atl.mindspring.net>
Source record: 129623

Hello:

Still wondering about this, and let me re-phrase my original question, and ask for any other opinions on.

Am trying to figure out what makes the most sense for me regarding protecting
my receiver from (possible) static charges, or induced voltages via the aerials due to nearby lightning strikes.

Hope the following question is reasonably clear; will be happy to clarify any portion of my question, if not.

I do listening only, and have a Discone pretty high up in the attic.
Also a random length wire running around the attic sides for the below 30 MHz stuff.

Not too worried about direct lightning hits; mainly concerned about induced voltages picked up by the
aerials from nearby lightning, or normal static buildup, and led to the receiver.

Right now, I disconnect the receivers two aerials when I'm not using them.
Undoubtedly the safest approach, but frankly has become a bit of a pain; particularly for the Discone's coax.

Have been thinking about adding a two position antenna switch, probably for each aerial, as a way around the inconvenience.
Am wondering about how to connect them, if I do go this way.

Let's say I have the switches Common terminal to the aerial, and the radio to the "A" tap. Nothing connected to "B".

The switches (haven't actually seen them) seem to ground the Unused tap when not being used.
If I put the switch to "B", this grounds the receivers input, which seems fine, and what I would want.

But now concerning the unused tap "B", which would then be fed by the Common going to the aerial:

If I permanently ground this tap, I would imagine there could be 0 Voltage buildup, but high currents flowing from a "nearby" lightning strike.

If I allow it to float, there could be 0 Current flow from a nearby strike, but very high voltages would be possible, with the possibility of arcing somewhere along the path (also static buildup would not be bled off).

What's the best approach?

Also, any opinions on the Daiwa, Alpha, or MFJ switches sold by Universal?
Quality, etc.

Much thanks,
Bob

4185. Dual Band Antenna Sought

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 17:37:44 UTC
From: Rich <rk911@ANTISPAM.yahoo.com>
Message-ID: <tp07vussvm98giv5ff8jncjvnjro27nl98@4ax.com>
Source record: 129624

I'm looking for a dual-band (144/440) mobile 5/8 antenna with a 3/8x24
base, not an NMO base. I've been told that this item may not exist.
1/4 wave antennas with the 3/8x24 base antennas are very common but
that's not what I want. Any leads? I'm currently checking the web
sites of all the major antenna mfg's but I was hoping someone here
would have a lead. Thanks.

73,

Rich, N9DKO

4186. Re: COAX types and performance

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 17:45:45 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <kt-cne5r-YBYGW6gXTWc3Q@comcast.com>
Source record: 129625

Bill,

Notice that the LMR240 is rated at 1490W, not 1500. There is some politics here.
The 8X is a big unknown, I have seen it labeled RG8X, RG8M, and other.

I think the big thing here is who the user is. You are not going to use RG58 at 500W if your company might be sued as a result.
Tam/WB2TT

4187. Re: Characterizing a commercial trap

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 17:52:43 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <rI6cnWCILvf6G26gXTWcqw@comcast.com>
Source record: 129626

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:uv5ehkdl6bb20f@corp.supernews.com...
> What's an easy way to measure trap loss?

As a two port device, input to output. He didn't say it was an antenna trap, which didn't occur to me until now. Still, I see no reason to measure current.

Tam/WB2TT

4188. Re: MFJ-1762 hairpin details

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 17:58:49 UTC
From: foolnaround <foolnaround@zero.net>
Message-ID: <n027vu0sgdq73s2bhsubumrb3lkneo5ps6@4ax.com>
Source record: 129627

I don't think it uses wire. Seems like it uses flat stock. Do you
have a copy of the instructions? I'll dig some out for you if needed.

73

On Sat, 7 Dec 2002 16:04:37 +0100, "Adam 9A4QV"
<alicajic.adam@pu.hinet.hr> wrote:

>Hello,
>
>Does anybody have MFJ-1762, 3 elements yagi 50mhz, hairpin dimensions
>(hairpin dimensions & wire diameter). Thanks in advance
>
>Adam, 9a4qv
>
>

4189. Re: Antenna Grounding Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 18:08:57 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF38AB9.BF052A2B@cwis.net>
Source record: 129628

Bob,
What you suggest will certainly work. Rather than
have the disconnected antennas 'float', why not use the
'other' terminals of the switches go to ground? By the
way, I would look for the cheapest switches I could find.
'Doc

4190. Re: RF in the shack questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 18:12:22 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF38B86.65E1BB9@cwis.net>
Source record: 129629

Dale,
Putting a choke at the feed point of the antenna
certainly couldn't hurt.
'Doc

4191. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 18:18:15 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF38CE7.1A80A48E@cwis.net>
Source record: 129630

Tom,
The 'A99' has no gain on 11 meters, no matter
what the manufacturer says. Of course, that just
depends on what antenna the manufacturer compares
their antenna ~to~. Since most antenna makers
compare their antenna to a beer can in the the
back yard, they find that their antenna has some
remarkable gain characteristics.
'Doc

4192. Re: Very Interesting Indeed...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 18:20:56 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DF38D90.EA422115@shaw.ca>
Source record: 129631

Plant a tree in the 'conductively fertilized' soil, and
feed it with copper sulfate.
When is tall enough, gamma match it! Use the upper
branches for top loading!
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4193. Re: PL259 & barrel connector loss?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 18:21:33 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF38DAD.CFD52CB8@cwis.net>
Source record: 129632

Lee,
You're asking what the loss is of a PL-259
and a barrel connector. Something on the order
of .25 db per connector is the 'going' guess,
but, that's all it is. Depends on who makes
the connector and how well they are installed.
'Doc

4194. Re: Very Interesting Indeed...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 18:22:49 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF38DF9.9B40EDEE@cwis.net>
Source record: 129633

Mark,
That sounds like one load of crap...
'Doc

4195. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 18:35:17 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF390E5.E25E9A65@cwis.net>
Source record: 129634

Art,
I think you should work on your communications
problem.
'Doc

4196. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 18:36:27 UTC
From: Tom <truckdrivingman@hotmail.com>
Message-ID: <at03ff$e5s$00$1@news.t-online.com>
Source record: 129635

Ok Doc,but I've cut the upper element for 29 MHz repeater operation.The CB days are over :-).Are you sure there's absolutely not a single dB of gain ?

Tom

"'Doc" <w5lz@cwis.net> schrieb im Newsbeitrag news:3DF38CE7.1A80A48E@cwis.net...
> Tom,
> The 'A99' has no gain on 11 meters, no matter
> what the manufacturer says. Of course, that just
> depends on what antenna the manufacturer compares
> their antenna ~to~. Since most antenna makers
> compare their antenna to a beer can in the the
> back yard, they find that their antenna has some
> remarkable gain characteristics.
> 'Doc

4197. Re: COAX types and performance

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 18:44:44 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF3931C.BF3AAEAC@cwis.net>
Source record: 129636

Reg,
You're right, I exaggerated too much in that
statement. What I should have said was that
you have to know what assumption the manufacturer
made when they gave the rating. Since the coax
maker can't know what the conditions of use are,
they can only make guesses as to how much power
their cable can handle in their own controlled
circumstances.
By the way, RG-8x can handle 1000 watts all
day long if the circumstances are right (been
there, done that, don't need the 'T' shirt).
Same thing for RG-58u and 500 watts.
'Doc

PS - You gotta know the circumstances.

4198. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 18:58:01 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <BbGdncq6wqIFOW6gXTWcqw@ctc.net>
Source record: 129640

> May someone tell me the gain of the Solarcon Antron99 ? I've heard
something
> of 6.88 dBi.Is this correct ?

When you see any gain listed for a simple antenna that is physically the same or shorter than a 1/2 wave dipole then the listing of dBi the i stands for IDIOT.
It is all advertising junk.

A 1/2 wave antenna will have a small ammount of gain over an isotropic antenna. The isotropic antenna is just a mathmatical modle and is very hare to make one in real life.

4199. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 19:03:26 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212081103.6e5accfd@posting.google.com>
Source record: 129637

Dick I should have resisted the temptation to enter this thread.
My point solely was to show how the use of percentages alone can
distort things.

If an area had a 300% increase in policeman killing i.e increase of
one to
three, and another place only had a 30% of similar killings it would
appear that you don't have to be a rocket scientist to decide where to
live. But if the information that the 'paltry' 30% represented an
increase from thirty killings to forty then those that extoll the
lesser increase in percentages alone for purposes of debate could get
a rude awakening. I went to a public meeting once regarding a new
housing development. A farmer decried the extra draw on well water
that would occur with all the extra wells. The response was that the
developer was well aware of the well water problem and thus well
digging would be restricted to one drilling for every TWO residences,
50%
of what would normally have been expected The farmer sat down
apparently satisfied,
With an ommision of facts and misleading the farmer the developer
'won' the debate.
I consider such action to mislead as a very cheap victory but I may
well of misunderstood and thus I now retreat.
Best Regards
Art

Dick Carroll <dixie@townsqr.com> wrote in message news:<3DF360B5.2EDDABE4@townsqr.com>...
> Hey Art, percentages of crime increase are not numbers? Scotland Yard's very own numbers?
Gee, any
> other time and on any other subject they would be revelant.
>
> Dick
>
>
> Art Unwin KB9MZ wrote:
>
> > I would rather you state how many policemen in both countries per
> > capita where I believe it would show that more gun ownership in
> > England would bring the killings up to par with that in the U.S. but
> > then saying it that way would not bolster your position which you
> > tried to do by using statistics alone with out numbers. Enough said.
> > Regards
> > Art ....XG
> >
> > meaningOC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message

news:<3DF25894.2070306@ieee.org>...
> > > Art Unwin KB9MZ wrote:
> > > > This "England " bit is somewhat of a distortion.
> > >
> > > Art, maybe you are just not up to date.
> > >
> > > Headlines from British papers tell the story:
> > >
> > > "Handgun crime soars despite Dunblane ban"… "Police move to tackle huge rise in crime"…
> > > "London gun murders tripled in 2001"… "Steep rise in violent crime"… "Top gangs getting
> > > more guns, warn police" ... "Handgun crime up despite ban"… "Gun crime rise in London"…
> > > "Gun crime trebles as weapons and drugs flood British cities."
> > >
> > > The London Evening Standard reported on Dec. 19, 2001, "Gun crime in London is rocketing,
> > > with increases of almost 90 percent in some firearms offenses, Scotland Yard reported
> > > today. New figures show London murders with guns increased by 87 percent in the first
> > > eight months of the year compared with the same period last year."

4200. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 19:04:56 UTC
From: richardharrison@webtv.net
Message-ID: <9475-3DF397D8-373@storefull-2317.public.lawson.webtv.net>
Source record: 129638

Art, KB9MZ wrote:
"What do Terman, the Gurus, and others say should have taken place in using such an antenna over varied frequencies?"

Cecil shows a dipole can be satisfactorily operated off-resonance. Cecil`s matching scheme is very different from Art`s, but there`s more than one way to skin a cat.

I infer that Art expects antenna gain from using a small loop at his doublet feedpoint and this loop shares a side with part of the doublet. This loop mounting causes it to share a plane with the doublet.

Terman shows why there is no gain from this configuration tn the usually desired directions.

On page 907 of Terman`s 4th edition (1955) of "Electronic and Radio Engineering" are found typical loops.

Terman writes of small rim-type loops:
"No energy is radiated in a direction perpendicular to the plane of the loop because the radiation in this direction from any section of the loop is always cancelled by radiation from a corresponding section on the diametrically opposite side of the loop carrying current in the opposite direction."

On page 867 of Terman`s same book he writes:
"An observer in direction P3 (on the axis of a straight-wire antenna such as a dipole) likewise receives no radiation (from the straight-wire antenna) because each elementary length of antenna radiates zero field in the direction of its axis."

So, if the vertical loop shares a side with a dipole, the loop radiates in every direction except a horizontal broadside. Broadside horizontal and low angle radiation might give some gain.

The vertical loop sharing a side with part of a straight-wire antenna does aid radiation from the straight-wire towards the zenith and towards the earth. It also radiates towards ends of the straight-wire which normally have nulls. This only helps in special applications.

Best regards, Richard Harrison, KB5WZI

4201. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 19:46:11 UTC
From: richardharrison@webtv.net
Message-ID: <26862-3DF3A183-64@storefull-2311.public.lawson.webtv.net>
Source record: 129643

Reg, G4FGQ wrote:
"Do Bird make SWR meters, ie., a meter with a scale graduated in SWR -
or have they got better sense?"

As far as I know, they have better sense.

Their product line includes:
1. Laboratory Grade Instruments
a. Broadband RF Power Calorimeters
b. "Thruline" High Accuracy RF Power Meters
2. "Thruline" RF Directional Wattmeters
3. "Termaline" RF Absorption Wattmeters
4. "Termaline" RF Coaxial Load Resistors
5. "Tennline" Coaxial Attenuators
6. Accessories for the above

For SWR: Formulas, conversion charts, and slide-rules are provided to
convert forward and reverse power readings to SWR and other
manifestations.

Best regards, Richard Harrison, KB5WZI

4202. Re: MFJ-1762 hairpin details

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 19:53:58 UTC
From: k1bqt@aol.com
Message-ID: <20021208145358.01935.00000030@mb-cv.aol.com>
Source record: 129639

>Does anybody have MFJ-1762, 3 elements yagi 50mhz, hairpin dimensions<

It's stamped from flat stock and shaped like a parallelogram to compensate for the slight offset of the two driven element legs. If you're making a hairpin out of wire, start with one about 5" long.

Rick K1BQT

4203. Re: 80 meter "Skywire Loop" antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 20:03:43 UTC
From: KB9TMP <kb9tmp@juno.com>
Message-ID: <uv79cutdo7ki30@corp.supernews.com>
Source record: 129641

"rich a." <rckchp@comcast.net> wrote in message
news:6dc33f40.0212071805.281d729d@posting.google.com...
> I am going to try an 80 meter "Loop Skywire" antenna, as described in
> an article by Dave Fisher, W0MHS (he has a different call now)in the
> Nov 1985 issue of QST (also in some editions of ARRL Antenna Book and
> is available to members on the ARRL web site via search).
>
> I'm going to try and keep it somewhat "stealthy", so I plan to use
> some #22 insulated wire. What I've got is a 1000' spool of twisted
> pair(insulated single strand tinned copper). An 80 meter loop will be
> approx 257.5' and it will be a bother to untwist that length, it has 1
> twist every 2". Will there be any problems or "quirky" behavior if I
> leave it twisted.....just bare, twist and solder the ends? Also, the
> wires are white and orange....I'd like to soak the whole spool in
> black dye to make is less visable....any problems doing that? Has
> anyone done this? Thanks,
>
> Rich K2CPE

Rich
I used CAT 5E 24 AWG computer networking cable with 4
twisted pairs and soldered all 8 wires together. Worked pretty
well for our field day the last 2 years. The only problem is the
bright' blue color of the outer jacket is not stealthy at all.

--
'73' From KB9TMP
"The secret of life is honesty and fair dealing,
if you can fake that, you've got it made."
-Groucho Marx

4204. Newbie help on Feelines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 20:04:17 UTC
From: John Koch <jakoch@centurytel.net>
Message-ID: <a597vucrd1m6h6bb7r4g2odh801rqsmiko@4ax.com>
Source record: 129642

I have just got into making antennas. I have made a couple for 2 meters. They work ok but my question is one I can not find on the internet. I am making some yagi beams and I am confused about the driven element. Some have the driven in two parts and therefor the feed line is one each of the elements... some have the driven in one peice centered on the boom. These antennas say nothing about where or how to connect the feed line. Can someone shed some light on this subject. I have been just cutting the driven in the middle on all my projects. Is this what I should be doing?

BTW, I am getting the ARRL book but thougt I would try to get this question answered first.

Thanks
N5RVN

4205. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 20:21:11 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF3A9B7.6010509@ieee.org>
Source record: 129644

Art Unwin KB9MZ wrote:
> Cecil,
> You are staing statistics that without explananation are meaningless.

Well, how about this one?

According to the International Crime Victims Survey conducted by the Dutch Ministry of Justice, England, Australia and Wales consistently won the dubious honors of having the highest burglary rates and the highest rates for crimes of violence such as robbery, assault and sexual assault in the 17 top industrialized nations.

Conducted in the year 2000 with interviews involving 35,000 individuals, the survey was summed up as a shocker in the British press. The Guardian reported the study "shows England and Wales at the top of the world league with Australia as the countries where you are most likely to become a victim of crime."
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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4206. Re: PL259 & barrel connector loss?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 20:29:41 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF3ABB5.8080808@ieee.org>
Source record: 129645

Lee Carkenord wrote:
> Lets say I have a 100 foot piece of 50 ohm coax, to be used at 30 Mhz.
> Lets also say that this piece of coax has a measured loss of 2 Db at
> 30 Mhz.
>
> Now I take this piece of coax and cut it into 2 pieces. I then
> install 2 each PL259's, and splice the cable back together with a
> barrel connector.
>
> The loss of this 100 foot cable with the splice would now measure
> approx what at 30 Mhz?

Could be up to 120dB depending on your solder job. :-) Any additional
loss will be minor.
--
cheers, CAM http://www.qsl.net/w5dxp

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4207. OCXO

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 20:34:45 UTC
From: jsideburns@yahoo.ca
Message-ID: <a701e809.0212081234.3e21029a@posting.google.com>
Source record: 129646

Hi all, I'm looking for an OCXO or a TCXO at 10 MHz in the $200 price range. Does anyone know where I can buy one on line? A website would be great.

THNX

4208. Re: Very Interesting Indeed...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 20:44:22 UTC
From: gmz79@aol.comnospam
Message-ID: <20021208154422.29446.00000283@mb-fb.aol.com>
Source record: 129647

>Plant a tree in the 'conductively fertilized' soil, and
>feed it with copper sulfate.
>When is tall enough, gamma match it! Use the upper
>branches for top loading!

---

copper sulfate eh? Ain't that the shit you flush down the toilet to kill
tree roots?I got a suspicion if you feed the tree copper sulfate it just might
stunt its growth a we bit, ya think?

Greg Z
to thine own sound be true

4209. Re: 80 meter "Skywire Loop" antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 20:48:01 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0212081248.71a941aa@posting.google.com>
Source record: 129648

Wes Stewart <n7ws@#arrl.net> wrote in message
news:<jgi6vuk6ofdd6bto3tiba4lj4c2hn7pfi8@4ax.com>...
> On Sun, 8 Dec 2002 12:03:50 +0000 (UTC), "Reg Edwards"
> <g4fgq.regp@btinternet.com> wrote:
>
> [snip]
>
> | Use "vaccuum filled" type for high power.
>
> I don't believe I've seen these before. Are they manufactured in the
> UK or do you homebrew them?
>
> If we were to build our own, how would we fill the relay with
> "vaccuum", just pour it in or what?
>
> Will there be a downloadable in a few seconds -- not zipped-up -- run
> immediately -- user friendly program to design these?
>
> Wes N7WS
>
> Sorry, sometimes I just can't help myself.

"Download" this:

http://www.mgs4u.com/relay.htm

w3rv

4210. Re: Re: 80 meter "Skywire Loop" antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 20:53:32 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <at0bgc$46b$1@venus.btinternet.com>
Source record: 129649

A Google search on "vacuum reed relays" is revealing.

==========

> Seriously, I had never heard of vacuum reed relays before.

4211. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 20:55:17 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF3B1B5.3010409@ieee.org>
Source record: 129650

VE9SRB wrote:

> "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
>>Powers add as simple scalar values.
>
> Not in the superposition of multiple vector voltages and currents in a
> single impedance.

Of course they do, Steve. If you think energy doesn't add as simple scalar values, you are missing something. What you are missing is the re-reflected energy in the constructive interference. Why do you choose to ignore that energy? Do you actually believe that energy is destroyed during wave cancellation? It's a simple yes or no question, Steve. If you don't answer, it will be apparent that you don't want anyone to know your answer.

>>There's no valid way to add two scalar values to get more out of it than you
>>put into it. You seem to have invented supersuperposing of powers.

> In the superposition of multiple vector voltages and currents, it is the
> multiple individual vector voltages and currents that add, not the multiple
> individual scalar powers.

That's what you say and you are wrong as can be seen from your magic energy machine at: http://www.qsl.net/w5dxp/magic.gif Would you mind changing that diagram to make it correct? As far as I can determine, it is exactly what you believe.

> The same is not true for the square of the magnitude of the voltages, which
> is the scalar power. I.e. The vector voltage Vtotal = V1 + V2 and
> |Vtotal|^2 can be greater than |V1|^2 + |V2|^2. Its also true that
> |Vtotal|^2 can be equal to or less than |V1|^2 + |V2|^2.

Absolute nonsense for transmission lines and leads to a violation of the conservation of energy principle. You simply have not included all the voltages or all the energy. Why do you choose to keep two of the four products of superposition and throw the other two away?

> For this reason, superposition of individual scalar powers cannot be used to
> determine the total scalar power resulting from the vector addition of two
> vector voltages and currents.

You are the only one trying to superpose powers, Steve. I know better than to do anything except add them using scalar math. The energy equation must balance. If yours doesn't, you have left something out. What you have left out of your voltage equation is the two voltages involved in the destructive interference. What you have left out of your energy equation is the energy

involved in the destructive interference. If you would include the terms
you left out, you wouldn't have any problem violating the conservation
of energy principle but you would be forced to admit that everything except
P1 is re-reflected energy.

> In vector superposition, Ptotal is not equal to P1 + P2, unless the
> associated vector voltages, V1 and V2 are 90 degrees out of phase.

That's exactly right because your term, 2 Sqrt(P1) Sqrt(P2) is not P1 and
P2 at all. It is re-reflected power caused by constructive interference.
I am preparing proof of that fact on my web page. In fact, P1=75W is the
only power out of the entire Ptot=133.33W that is not re-reflected.

Power traveling toward the source is reflected power. Power traveling toward
the load is either unreflected power or re-reflected power. There is no power
traveling toward the source. Therefore, all the power is traveling toward the
load has to be unreflected power or re-reflected power. There is simply no
other possibility.
--
cheers, CAM http://www.qsl.net/w5dxp

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4212. Re: Very Interesting Indeed...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 20:59:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv7cl4nb9oepd4@corp.supernews.com>
Source record: 129651

Yeah, I've seen countless pump-'n'-dump promotions, but that one's kinda literal about it.

Roy Lewallen, W7EL

'Doc wrote:
> Mark,
> That sounds like one load of crap...
> 'Doc

4213. Re: Characterizing a commercial trap

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 21:05:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv7d11qifg9fde@corp.supernews.com>
Source record: 129652

Thanks, that explains the statement. As others have pointed out, it's not easy to measure antenna trap loss, which can be quite different on each band, and depends strongly on what band combination the antenna accommodates. But, provided that the L, C, and equivalent R, or the Z at each frequency, are known, loss can be predicted quite accurately by modeling.

Roy Lewallen, W7EL

Tarmo Tammaru wrote:
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:uv5ehkdl6bb20f@corp.supernews.com...
>
>>What's an easy way to measure trap loss?
>
>
> As a two port device, input to output. He didn't say it was an antenna trap,
> which didn't occur to me until now. Still, I see no reason to measure
> current.
>
> Tam/WB2TT
>
>

4214. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 21:09:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv7d954pal8092@corp.supernews.com>
Source record: 129653

Art, thanks for the explanation. I have two questions.

1. You say you've improved the efficiency of a common dipole. A common dipole is nearly 100% efficient, so no improvement would be noticeable. Why do you think the very small improvement that it's possible to achieve is important?

2. You say that the "radiation lobes became mainly in phase". What does this mean in terms of gain and pattern?

Roy Lewallen, W7EL

Art Unwin KB9MZ wrote:
> 'Doc <w5lz@cwis.net> wrote in message news:<3DF2AE16.F55A4796@cwis.net>...
>
>>Art,
>> I really don't think anyone was refuting Terman. I
>>think it has more to do with how you relate ~your~
>>antenna to what Terman describes.
>> 'Doc
>
>
> Yes you are absolutely correct
> Because of my inexperience in antennas and relative nomenclature
> I have been unable thru the years to communicate efficiently
> with those that are knoweledgable in the field.
> This has bred fraustration every year when I try to make a fresh start
> in openly discussing my antenna. Now, just when my determination
> started
> to wane I read Termans explanations regarding 'resonant circuits.'
> Now at last I have a vehicle to travel on of which every one is aware
> so that
> the antenna subject can be 'contained' and with the same nomenclature
> used to explain what I have (or at least what I think I have). It is
> this that gives me hope that we or I will be allowed a fresh start.
> In TERMAN'S type nomenclature I have a RANDOM length dipole
> radiator which for the most part can be considered a UNTUNED radiator,
> since in the main there is reactance present and thus it is generaly
> UNTUNED. At this point I really don't care how one feeds such a thing
> tho I chose to use a delta feed.
> I then joined (COUPLED) it to a TUNED circuit which in my case was a
> LOOP
> antenna with a additional variable capacitor for TUNING. I then
> COUPLED both circuits together such that at least a third of the TUNED
> circuit was in direct contact with the UNTUNED circuit. When using

> this co-joined antenna I found that
> the best of LOOP antennas came into play without the hinderance of
> inefficiency
> and narrow bandwidth e.t.c., especially so when I migrated towards top
> band.
> When I migrated the other way with respect to frequency the UNTUNED
> circuit took on more of the role in radiation by using the TUNED
> circiut to enact a phase change on the dipole such that radiation
> lobes became mainly IN PHASE.
> This is what I found, but I had no way of knowing or recognizing what
> was an error and what was not (faulty connectors ?)
> Now for the first time I believe I have explained it well enough so we
> can have a reasonable discussion based on TERMAN and with the past put
> aside.
> This is what I am hoping for ! What does Terman and the Gurus and
> others say
> should have taken place in using such an antenna over varied
> frequencies ?.
> Doc, what do you think I should have expected with such an arrangement
> that I experimented with ?
> Best Regards
> Art KB9MZ.....XG

4215. Re: Are there any hams in Iceland or Greenland?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 21:13:23 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <TBOI9.18683$r4.1014381@news1.west.cox.net>
Source record: 129654

Yep -- for iceland -- see URL:
http://www.ira.is/index-ensk.html
Also see Buckmasters Ham Population page -- sez 207 hams -- URL:
http://www.buck.com/divisions_by_location.html

For Greenland -- see Buckmasters Ham Population page - sez 148 hams -- URL:
http://www.buck.com/divisions_by_location.html

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com

4216. Re: Newbie help on Feelines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 21:31:20 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3df3ba2c$0$97472$ba620e4c@news.skynet.be>
Source record: 129655

The driven element in two pieces is probably a dipole. In this case this element is connected through a symetrical (balanced) line.
If the driven element is a single piece (same length), it can be connected with a gamma match and a coax cable. This is not the only solution.

73 de ON5MJ - Jacques.

4217. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 21:41:25 UTC
From: gaschafer@attbi.com
Message-ID: <3df3bc3c.5233843@netnews.attbi.com>
Source record: 129656

On Sun, 08 Dec 2002 14:55:17 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>VE9SRB wrote:
>
>> "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
>>>Powers add as simple scalar values.
>>
>> Not in the superposition of multiple vector voltages and currents in a
>> single impedance.
>
>Of course they do, Steve. If you think energy doesn't add as simple
>scalar values, you are missing something.

If you combine two 100 watt each transmitters that are on different
frequencies, into the same
line and put a Bird watt meter in that line, it will read greater than
the sum of the two transmitter
powers. This is with the line feeding a flat 50 ohm load. It could
read as high as 400 watts
depending on the phase relationship of the two frequencies involved.

Richard is well aware of this in AM broadcast transmitters. A 100 watt
carrier modulated
100% with a single tone produces two side bands of 25 watts each.
Adding the powers
together would give you 150 watts total. But to get the true power out
you must first add the
voltages of each signal to compute the power. Doing so gives a total
power out of 400 watts.

73
Gary K4FMX

4218. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 21:43:34 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <i1c7vuk4jg9kj062q670bha07t2meu7l8u@4ax.com>
Source record: 129657

On Sun, 8 Dec 2002 13:04:56 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Art, KB9MZ wrote:
>"What do Terman, the Gurus, and others say should have taken place in
>using such an antenna over varied frequencies?"
>
>Cecil shows a dipole can be satisfactorily operated off-resonance.
>Cecil`s matching scheme is very different from Art`s, but there`s more
>than one way to skin a cat.
>
>I infer that Art expects antenna gain from using a small loop at his
>doublet feedpoint and this loop shares a side with part of the doublet.
>This loop mounting causes it to share a plane with the doublet.
>
>Terman shows why there is no gain from this configuration tn the usually
>desired directions.
>

Hi Richard,

This remains standing since last summer when Mark performed the
analysis and I did a comparison to determine the answer to "does it
show more than 1dB difference?":
>On 3 Aug 2002 09:29:05 -0700, nm5k@wt.net (Mark Keith) wrote:
>
>> I tested it on most all bands, 40-10 m.
>>Lets start with a 40m dipole in free space and note the gain on all
>>bands 40-10.
>>40m-2.13 dbi
>>30m-2.59 dbi
>>20m-3.67 dbi
>>17m-5.07 dbi
>>15m-2.91 dbi
>>12m-3.73 dbi
>>10m-3.89 dbi
>>
>>If you used this antenna in the real world with a low loss feedline
>>such as ladder line, the antenna would be fairly efficient on all
>>bands.
>>
>>Now lets compare the loop-dipole setup.
>>40m-1.78 dbi ---needed 164 pf to tune on 40m.
>>30m-1.13 dbi ---needed 76 pf to tune on 30m
>>20m-1.97 dbi ---needed 36.99 pf to tune on 20m, less on the higher

>>bands..
>>17m-2.40 dbi
>>15m-3.51 dbi with a very low Z input of about 2-3 ohms
>>10m-2.02 dbi
>>
>Hi Mark,
>
>A lot of work indeed. As for a basis of comparison and to answer a
>longstanding question of mine: is there more than a dB difference?
>40m-down 0.3 dB - no
>30m-down 1.4 dB - yes
>20m-down 1.7 dB - yes
>17m-down 2.6 dB - yes
>15m-down 1.6 dB - yes
>10m-down 1.8 dB - yes
>
>73's
>Richard Clark, KB7QHC

The answer then, as it remains inferred by your reading of Terman, is that yes, there is more than a dB difference. In fact there is an average 1.57dB LOSS across 6 amateur bands, on each band, when compared to a simple doublet.

Are Hams willing to trade in their antennas for this design if they know they are going to lose performance? If there is some compelling and simple alternative to offset the loss perhaps. In this regard, Cecil's method of tuning an "un-tuned" radiator is just such a case, and this method does not lose gain. Cecil's method is simply that top list of results which shows an average of 1.57dB GAIN in comparison for every band.

In short, and barring contrary evidence, Cecil's method is simpler to tune (making the un tuned radiator wide band), has less components in the air (two simple wires), and has more gain (1.57dB average) across HF. For a "stagnant" design, it is hard to beat at any level.

73's
Richard Clark, KB7QHC

4219. Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 21:44:14 UTC
From: Maurice ON4BAM <on4bam@yahoo.com>
Message-ID: <k6f7vu0760hq96q642hldsrpkaq19lqdlp@4ax.com>
Source record: 129658
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

On Sun, 08 Dec 2002 21:24:24 GMT, Zoran Brlecic <WA7AA@attbi.com>
wrote:

>Surely the FCC does not interfere with the FAA authority? In other
>words, it *is* the safety of the plane, for the same reasons that
>pagers, radios, transceivers, GPS receivers and similar devices are not
>allowed.

GPS receivers ARE allowed (once the 'seatbelt signs' are off) at many
if not most airlines.

Bye Maurice
--
Hamradio: ON4BAM / M0CIL / 9H3Z http://www.qsl.net/on4bam
Travelstories from Alaska, Scotland, South Africa,Iceland,
Faroe Isl. and IOTA activations

4220. Re: Newbie help on Feelines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 21:46:11 UTC
From: John Koch <jakoch@centurytel.net>
Message-ID: <aaf7vu00hk9rbpq0sggus3sth7poo7e1kp@4ax.com>
Source record: 129659

I am familiar with dipole antennas. That is why I was understanding
the feedline on this type of antenna... but it is the one peice type
that I was not sure about. I have learned alot since posting here
already. What are some of the other solutions?

On Sun, 8 Dec 2002 22:31:20 +0100, "ON5MJ" <on5mjREMOVE@skynet.be>
wrote:

>The driven element in two pieces is probably a dipole. In this case this
>element is connected through a symetrical (balanced) line.
>If the driven element is a single piece (same length), it can be connected
>with a gamma match and a coax cable. This is not the only solution.
>
>73 de ON5MJ - Jacques.
>

4221. Re: Newbie help on Feelines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 21:48:39 UTC
From: John Koch <jakoch@centurytel.net>
Message-ID: <pgf7vug5pcplrkg4udd2kcbesdmkkr5tla@4ax.com>
Source record: 129660

Is there a formula or something like that to determine the gamma match
placement or do you just adjust it for SWR?

On Sun, 08 Dec 2002 15:46:11 -0600, John Koch <jakoch@centurytel.net>
wrote:

>I am familiar with dipole antennas. That is why I was understanding
>the feedline on this type of antenna... but it is the one peice type
>that I was not sure about. I have learned alot since posting here
>already. What are some of the other solutions?
>
>On Sun, 8 Dec 2002 22:31:20 +0100, "ON5MJ" <on5mjREMOVE@skynet.be>
>wrote:
>
>>The driven element in two pieces is probably a dipole. In this case this
>>element is connected through a symetrical (balanced) line.
>>If the driven element is a single piece (same length), it can be connected
>>with a gamma match and a coax cable. This is not the only solution.
>>
>>73 de ON5MJ - Jacques.
>>

4222. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:01:47 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF3C14A.90108@ieee.org>
Source record: 129661

Reg Edwards wrote:
> Do Bird make SWR meters, ie., a meter with a scale graduated in SWR - or
> have thay got more sense?

Reg, if you can make system measurements and then calculate SWR
a microcomputer can do the same thing.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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4223. Re: Newbie help on Feelines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:10:28 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF3C354.5080901@ieee.org>
Source record: 129663

John Koch wrote:
> I have just got into making antennas. I have made a couple for 2
> meters. They work ok but my question is one I can not find on the
> internet. I am making some yagi beams and I am confused about the
> driven element. Some have the driven in two parts and therefor the
> feed line is one each of the elements... some have the driven in one
> peice centered on the boom. These antennas say nothing about where or
> how to connect the feed line. Can someone shed some light on this
> subject. I have been just cutting the driven in the middle on all my
> projects. Is this what I should be doing?
>
> BTW, I am getting the ARRL book but thougt I would try to get this
> question answered first.

When you get the book look up "gamma match" and "delta match". You
might even find them on the web. And you could always turn the driven
element into a folded dipole.
--
cheers, CAM http://www.qsl.net/w5dxp

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4224. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:10:58 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <IrPI9.30888$5P3.1940898@newsfeed.slurp.net>
Source record: 129662

RE: Earlier posts below...

If the wattmeter is designed to measure RMS power, it will show 200 watts in the 1st scenario below, and 150 watts in the 2nd (assuming the modulation is sinusoidal). A typical example of such a meter is the HP 435 series.

An inline wattmeter using the typical diode element (Bird etc) will rectify both carriers to produce an output based on the two original frequencies and their mixing products. They are not designed, or suitable for measuring power in multi-freq RF systems.

R. Fry

"Gary Schafer" <gaschafer@attbi.com> wrote in message
news:3df3bc3c.5233843@netnews.attbi.com...
> On Sun, 08 Dec 2002 14:55:17 -0600, OC_CAM's Razor
> <Cecil.A.Moore@ieee.org> wrote:
>
> >VE9SRB wrote:
> >
> >> "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
> >>>Powers add as simple scalar values.
> >>
> >> Not in the superposition of multiple vector voltages and currents in a
> >> single impedance.
> >
> >Of course they do, Steve. If you think energy doesn't add as simple
> >scalar values, you are missing something.
>
>
> If you combine two 100 watt each transmitters that are on different
> frequencies, into the same
> line and put a Bird watt meter in that line, it will read greater than
> the sum of the two transmitter
> powers. This is with the line feeding a flat 50 ohm load. It could
> read as high as 400 watts
> depending on the phase relationship of the two frequencies involved.
>
> Richard is well aware of this in AM broadcast transmitters. A 100 watt
> carrier modulated
> 100% with a single tone produces two side bands of 25 watts each.
> Adding the powers
> together would give you 150 watts total. But to get the true power out
> you must first add the

> voltages of each signal to compute the power. Doing so gives a total
> power out of 400 watts.
>
> 73
> Gary K4FMX

4225. Re: vertical dipole mounting - high vs. low

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:16:44 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212081416.8621efb@posting.google.com>
Source record: 129664

"J Tabor" <denews@taborsoft.com> wrote in message
news:<uv4u7ponr9a89f@corp.supernews.com>...
> Greetings,
>
> Surely this is an old topic. However, still interesting.
>
> Take a vertical dipole, Force 12 Sigma 5 for example, is there benifit to
> mounting high - say on tower at 110 feet - versus low nnear ground.
>
> Some say there is no benifit to mounting a vertical high, others say high is
> better - period.
>
> Your thoughts?
>
> Thanks.
> Jim - KU5S

I think the higher the better in general although there are probably cases where a lower antenna could be better for shorter paths. The higher antenna will have a much better local coverage as far as the ground/space wave. The higher antenna will have lower ground losses. For dx, the higher antenna should be better in almost all cases, despite possible higher angles per certain heights in wavelength. The higher antenna will open the band earlier, and close later than the low antenna. Usually about a hours worth each way. The only drawback I see is a possible reduction of strength to closer stateside signals. You see much the same effect when comparing beams at high and low heights. If I had to choose, I go the higher one anyday. As far as the other post mentioning that the Force antenna recomending no higher than 5 ft, and keeping the feedline at right angles, I'm not sure. I haven't seen that antenna. But that leads me to believe they must have a decoupling problem with that antenna. Near the ground is the last place you want one of those antennas. Their advice doesn't really make sense, and would probably lead me to avoid that antenna until I knew what the problem was. It's fairly evident that the feedline must act as part of the antenna if they advise that info. Any half wave antenna I've ever built could be mounted at any height with little worries about excess feedline radiation. And I always elevate mine. Most all I've built were ringo types. I've never had severe common mode problems with that type of matching device. "gamma loop" feed. It decouples the feedline well enough to normally have no problems elevating. MK

4226. Re: Dual Band Antenna Sought

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:17:36 UTC
From: Phantom <newt@aol.com>
Message-ID: <4yPI9.480$uV4.446633@news2.news.adelphia.net>
Source record: 129665

They do exist ! I use the 500C made by Austin Custom antennas in N.H. His call is K1QIZ and his antenna are super. Now they are NOT 5/8 wl but I have tested these antennas and compared them to the normal antennas (being the normal 5/8 wl) and found them to perform better. The reason is they are center fed with a special feed system and the take off angle is on the horizon as compared to most ham antennas that you buy

Hope this helps

Jim WA3MEJ

"Rich" <rk911@ANTISPAM.yahoo.com> wrote in message news:tp07vussvm98giv5ff8jncjvnjro27nl98@4ax.com...
> I'm looking for a dual-band (144/440) mobile 5/8 antenna with a 3/8x24
> base, not an NMO base. I've been told that this item may not exist.
> 1/4 wave antennas with the 3/8x24 base antennas are very common but
> that's not what I want. Any leads? I'm currently checking the web
> sites of all the major antenna mfg's but I was hoping someone here
> would have a lead. Thanks.
>
> 73,
>
> Rich, N9DKO
>

4227. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:19:40 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3DF3C239.81E22F6E@verizon.net>
Source record: 129666

Tom wrote:

> Ok Doc,but I've cut the upper element for 29 MHz repeater operation.The CB
> days are over :-).Are you sure there's absolutely not a single dB of gain ?
>
> Tom
>

In theory the A99 is supposed to be an end fed dipole- then it would have 0 dBd
gain.
I recently saw a WEB sited dedicated to exposing the innards of one of these-
horrible workmanship fraught w/ intemittents. So, maybe it is negative dBd

Dale W4OP

4228. Re: Balun question, please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:27:21 UTC
From: "Thomas C. Sefranek" <WA1RHP@ARRL.net>
Message-ID: <dHPI9.11667$kz2.1210099@newsread1.prod.itd.earthlink.net>
Source record: 129667

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
news:3DF27D8F.5030704@ieee.org...
> Thomas C. Sefranek wrote:
>
> > OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
> >>Are you familiar with self resonance in mobile
> >>antenna loading coils?
> >
> > Certainly, what's your point?
> > I can demonstrate self resonance with ANY coil.
>
> What's the self resonant frequency for 20 turns of coax?

Which coax, what diameter, etc.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
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>

4229. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:34:08 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF3C8E0.C3886E61@cwis.net>
Source record: 129668

Tom,
The 'A99' is a 1/2 wave antenna. If you compare a 1/2 wave
to a 1/2 wave at the same frequency, they should be the same,
right? That means there is no gain, or it has a gain of '1'.
Yes, I'm sure there's no gain.
'Doc

4230. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:34:18 UTC
From: gaschafer@attbi.com
Message-ID: <3df3c926.8540164@netnews.attbi.com>
Source record: 129569

If we read 100 watts forward and 10 watts of reflected power from a
given load we assume
90 watts gets dissipated in the load. How much power is the
transmitter putting out? 90 watts?
What happens to the 10 watts of reflected power? Does it get
re-reflected back to the load. If
so how much power is the load really dissipating?

Now put an isolator at the transmitter with a load on the third port.
Feed the same load as
above. If the transmitter puts out 90 watts we should read 100 watts
forward and 10 watts
reflected. How much of the reflected 10 watts gets dissipated in the
load on the isolator and
how much gets re-reflected?

73
Gary K4FMX

4231. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:35:23 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF3D76C.887E6E38@townsqr.com>
Source record: 129570

Art Unwin KB9MZ wrote:

> Dick I should have resisted the temptation to enter this thread.
> My point solely was to show how the use of percentages alone can
> distort things.

Art, your point is well taken and yes, it can. Unfortunately in this case it doesn't.

Dick

4232. Re: RF in the shack questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:36:36 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212081436.458a8a62@posting.google.com>
Source record: 129571

chvl67ss@adelphia.net (Dale) wrote in message
news:<4c3de24d.0212080737.51edff2e@posting.google.com>...
I have read about
> people making coax chokes but they all seem to have different turns
> and diameters, is there one size coax choke that that I can make to
> cure all 3 bands? any help would be great Dale Kb1eod

Does the antenna have a balun now? 4:1, or 1:1? It might have a faulty
balun if so. The A4 beam I have uses a 1:1 coax choke. Using rg-8,
it's 8 turns wound with a 6 inch diameter form. Don't use foam coax
for these. Those should be good dimensions for any tri band beam. MK

4233. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:43:14 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF3CB02.4000202@ieee.org>
Source record: 129572

Gary Schafer wrote:
> If you combine two 100 watt each transmitters that are on different
> frequencies, into the same
> line and put a Bird watt meter in that line, it will read greater than
> the sum of the two transmitter
> powers. This is with the line feeding a flat 50 ohm load. It could
> read as high as 400 watts
> depending on the phase relationship of the two frequencies involved.

So does that mean that you can get 400 watts out of two 100 watt transmitters? Of course not. You have made a measurement error. We are not discussing two waves of different frequencies. We are discussing coherent waves. Does a Bird wattmeter make the same mistake with coherent waves?

Steve says you can take TWO AND ONLY TWO coherent waves and superpose them to obtain more energy than the sum of the two energies in the independent waves. That is a clear violation of the conservation of energy principle. There's no way to combine TWO AND ONLY TWO waves of 75W and 8.33W to obtain a wave of 133.33W. Steve agrees that there are four quantities predicted by superposition but he says two of them are canceled. He doesn't seem to realize that ENERGY CANNOT BE CANCELED. That's what our argument is all about.

Steve is apparently unaware that interference can cause re-reflection of power. He says the only things that can cause 100% re-reflection of power are a short-circuit, open-circuit, or pure reactance. But of course, destructive interference in one direction in a transmission line causes a reflected constructive interference energy wave in the opposite direction. If the destructive interference involves two reflected waves, as it does in Steve's example in his article, then the constructive interference results in a re-reflected energy wave, by definition. That makes about a dozen of Steve's assertions in his article false.

Steve says that total re-reflection of reflected energy doesn't occur at an impedance match point in a transmission line. No reflected energy reaches the source. There are only two directions, toward the source and toward the load. So where does the reflected energy go if it doesn't reach the source and it doesn't reach the load? Does Steve know about some secret black hole that is sucking up all the reflected energy from every antenna system on the planet?
--
cheers, CAM http://www.qsl.net/w5dxp

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4234. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:45:01 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212081445.757dc9e6@posting.google.com>
Source record: 129573

'Doc <w5lz@cwis.net> wrote in message news:<3DF390E5.E25E9A65@cwis.net>...
> Art,
> I think you should work on your communications
> problem.
> 'Doc

Thankyou.
Many have said the same.
I am hoping that holding to the same terms as that used by
Terman will make it easier for all. Hopefully my question is
now quite clear as we now have a blueprint to follow as to
what one could expect from such an antenna.
If I get derision for even experimenting with such a setup
where now everything is to be done by computor, then so be it.
Again, do you have any insight as to what one should expect?
You certainly do not have to wait on a guru before voicing
an opinion
Regards
Art

4235. Re: Balun question, please

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:50:26 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF3CCB2.10309@ieee.org>
Source record: 129575

Thomas C. Sefranek wrote:

> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>What's the self resonant frequency for 20 turns of coax?
>
> Which coax, what diameter, etc.

RG-58, 4 inches, close wound on a 2L pop bottle.
--
cheers, CAM http://www.qsl.net/w5dxp

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4236. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 22:50:27 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <at0ibacmj1@slb6.atl.mindspring.net>
Source record: 129574

Thread:

[snip]
"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DF3C14A.90108@ieee.org...
> Reg Edwards wrote:
> > Do Bird make SWR meters, ie., a meter with a scale graduated in SWR -
or
> > have thay got more sense?
>
> Reg, if you can make system measurements and then calculate SWR
> a microcomputer can do the same thing.
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

Do not forget that not only SWR but also "reflected power" is a
calculation
and not a measurement!

The Bird Wattmeter "calculates" the reflected power, it does not measure
Watts
directly.

To do so the Bird "Wattmeter" utilizes a simple passive internal analog
computer
circuit which calculates the so-called "reflected voltage" B = V - RI from
the
actual measured voltage V and current I observed at a single point on the
line
[Hence, it cannot even observe any standing waves!] and then it displays
this voltage
indication "B" on a meter scale which is marked in Watts, the scale markings
being a
further [nomographic] analog computer which takes into account the implicit
squaring of
the voltage and a division by the reference resistance R to arrive at Watts.

--
Peter K1PO
Indialantic By-the-Sea, FL

4237. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 23:00:29 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF3CF0D.4020704@ieee.org>
Source record: 129576

Gary Schafer wrote:
> If we read 100 watts forward and 10 watts of reflected power from a
> given load we assume
> 90 watts gets dissipated in the load. How much power is the
> transmitter putting out? 90 watts?

That's by definition. It may be putting out 100W and dissipating
the 10W. But that's still just a *net* output of 90W which is
how it is defined.

> What happens to the 10 watts of reflected power? Does it get
> re-reflected back to the load. If
> so how much power is the load really dissipating?

The load dissipates 90% of the incident power.

> Now put an isolator at the transmitter with a load on the third port.
> Feed the same load as
> above. If the transmitter puts out 90 watts we should read 100 watts
> forward and 10 watts reflected.

Nope, we won't. If the isolator is dissipating all the reflected power
and the transmitter is putting out 90 watts, we will read 90 watts
forward and 9 watts reflected.

> How much of the reflected 10 watts gets dissipated in the
> load on the isolator and how much gets re-reflected?

Ideally, all the reflected 9 watts gets dissipated in the isolator.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
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-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4238. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 23:04:07 UTC
From: richardharrison@webtv.net
Message-ID: <2451-3DF3CFE7-392@storefull-2315.public.lawson.webtv.net>
Source record: 129577

Gary, K4FMX wrote:
"Richard is well aware of this in AM broadcast transmitters. A 100 watt carrier modulated 100% with a single tone produces two side bands of 25 watts each."

Bingo!

Countless times I`ve set the modulation to 100%. The antenna system current at the common point rises by 22.5%. R-F volts do the same thing but aren`t so conveniently monitored.

The "common point" is recognized by the FCC as a known resistance of the transmission line sort. It is where power output is determined.

1.225 squared is 1.5, the factor by which power delivered to the antenna system increases with 100% moulation.

Best regards, Richard Harrison, KB5WZI

4239. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 23:14:19 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF3D24B.5050705@ieee.org>
Source record: 129578

Peter O. Brackett wrote:
> Do not forget that not only SWR but also "reflected power" is a
> *calculation* and not a measurement!

But it is a calculation supported by measurements. A laboratory signal generator equipped with a circulator can make the same measurements and obtain the same results if the SWR meter is being properly used. I'm not saying that an SWR meter cannot be abused. One must understand the necessary and sufficient boundary conditions to obtain valid results.

> The Bird Wattmeter "calculates" the reflected power, it does not measure
> Watts directly.

But a wattmeter that actually measures the watts directly gets the same results as the Bird. Do you run your transmitted signal through a wattmeter that actually measures the watts directly, Peter? If so, you must love QRP. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4240. Re: Very Interesting Indeed...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 23:15:40 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DF3D2A5.A30A4A21@shaw.ca>
Source record: 129579

greg z wrote:
>
> >Plant a tree in the 'conductively fertilized' soil, and
> >feed it with copper sulfate.
> >When is tall enough, gamma match it! Use the upper
> >branches for top loading!
>
> ---------------
> copper sulfate eh? Ain't that the shit you flush down the toilet to kill
> tree roots?I got a suspicion if you feed the tree copper sulfate it just might
> stunt its growth a we bit, ya think?
>
> Greg Z
> to thine own sound be true

OK, so I'll run it on 10M! :-)
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4241. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 23:16:26 UTC
From: JACKSTALER@AOL.COM
Message-ID: <97338da9.0212081516.553e392@posting.google.com>
Source record: 129580

'Doc <w5lz@cwis.net> wrote in message news:<3DF390E5.E25E9A65@cwis.net>...
> Art,
> I think you should work on your communications
> problem.
> 'Doc

Doc,
as i have pointed out before, you never join in discusions
you just stand by and stir, i must assume you are unable to keep up.
sugest you stick to what your good at, limited though that may be. J
STALER

4242. Re: vertical dipole mounting - high vs. low

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 23:20:47 UTC
From: Ted Sloan <tedsloan@dsl.pipex.com>
Message-ID: <tpk7vucfb0lhqmlr611lka5tet04babv96@4ax.com>
Source record: 129581

On Sat, 7 Dec 2002 16:40:56 -0600, "J Tabor" <denews@taborsoft.com>
wrote:

>Greetings,
>
>Surely this is an old topic. However, still interesting.
>
>Take a vertical dipole, Force 12 Sigma 5 for example, is there benifit to
>mounting high - say on tower at 110 feet - versus low nnear ground.
>
>Some say there is no benifit to mounting a vertical high, others say high is
>better - period.
>
>Your thoughts?
>
>Thanks.
>Jim - KU5S

Have only tried it sitting in the usual bucket of cement. Have had it
for nine months and not bad considering it's small size. I feel a
linear amplifier would help greatly as so often I hear the DX but they
donb't hear me with 35 watts. The makers say to mount it on the
ground but you hear of guys using it from their balcony , well off the
ground.
73 Ted
GI4AHP

4243. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 23:25:24 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212081525.2f1bc39b@posting.google.com>
Source record: 129582

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<9475-3DF397D8-373@storefull-2317.public.lawson.webtv.net>...
> Art, KB9MZ wrote:
> "What do Terman, the Gurus, and others say should have taken place in
> using such an antenna over varied frequencies?"
>
> Cecil shows a dipole can be satisfactorily operated off-resonance.
> Cecil`s matching scheme is very different from Art`s, but there`s more
> than one way to skin a cat.
>
> I infer that Art expects antenna gain from using a small loop at his
> doublet feedpoint and this loop shares a side with part of the doublet.
> This loop mounting causes it to share a plane with the doublet.

Well all would like "extra gain" but first I would like a better
understanding of what one should expect based on what Terman says.
Starting off with just 'gain' statements usually means that all
discussion come to an end.

>
> Terman shows why there is no gain from this configuration tn the usually
> desired directions.

Well again I don't want to get down on the gain question as it always
gets down to more gain with respect to what! I think I need a bit more
understanding before that should be debated if ever.
>
> On page 907 of Terman`s 4th edition (1955) of "Electronic and Radio
> Engineering" are found typical loops.
>
> Terman writes of small rim-type loops:
> "No energy is radiated in a direction perpendicular to the plane of the
> loop because the radiation in this direction from any section of the
> loop is always cancelled by radiation from a corresponding section on
> the diametrically opposite side of the loop carrying current in the
> opposite direction."

I would assume he is speaking of a loop antenna alone where my
concerns are
it's characteristics when coupled to another radiator. I was thinking
that certain characteristics may well change. I might add that I did
change the
loop to one that would radiate in the same plain as the rest of the
radiator
per your prior suggestion

>
> On page 867 of Terman`s same book he writes:
> "An observer in direction P3 (on the axis of a straight-wire antenna
> such as a dipole) likewise receives no radiation (from the straight-wire
> antenna) because each elementary length of antenna radiates zero field
> in the direction of its axis."
>
> So, if the vertical loop shares a side with a dipole, the loop radiates
> in every direction except a horizontal broadside. Broadside horizontal
> and low angle radiation might give some gain.

Well it did appear that at some capacitor settings the nulls could
fill in where in other cases the radiation was a sharp figure 8 but
then I do know if I was just misreading or misinterpreting things.

>
> The vertical loop sharing a side with part of a straight-wire antenna
> does aid radiation from the straight-wire towards the zenith and towards
> the earth. It also radiates towards ends of the straight-wire which
> normally have nulls. This only helps in special applications.

Humm.. So what is your interpretation of what Terman suggests one
should expect
when using such a combination over a broad spectrum range ? I
mentioned earlier
that changes did occur with respect to frequency range and I might add
that directivety held up quite well across the frequency span but
again, I would
prefer to get a better idea of what Terman says I should expect from
those that have a better background than I, as well as other ideas to
put into the mix.
Some people have the ability to read such a tract by Terman and thus
state
exactly what one should expect without concern to what other people
say or
without concern to odd experimental findings.

>
> Best regards, Richard Harrison, KB5WZI
Regards
Art

4244. Re: Newbie help on Feelines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-08 23:26:03 UTC
From: Dan/W4NTI <w4nti@NOSPAMmindspring.com>
Message-ID: <at0kf6jvt1@slb6.atl.mindspring.net>
Source record: 129583

Best bet is to get some literature on antennas. ARRL antenna handbook is a good choice. As is the one by William Orr. Then start experimenting once you have a basic background. But the main thing to remember is......its ALL MAGIC.

Dan/W4NTI

"John Koch" <jakoch@centurytel.net> wrote in message news:a597vucrd1m6h6bb7r4g2odh801rqsmiko@4ax.com...
> I have just got into making antennas. I have made a couple for 2
> meters. They work ok but my question is one I can not find on the
> internet. I am making some yagi beams and I am confused about the
> driven element. Some have the driven in two parts and therefor the
> feed line is one each of the elements... some have the driven in one
> peice centered on the boom. These antennas say nothing about where or
> how to connect the feed line. Can someone shed some light on this
> subject. I have been just cutting the driven in the middle on all my
> projects. Is this what I should be doing?
>
> BTW, I am getting the ARRL book but thougt I would try to get this
> question answered first.
>
> Thanks
> N5RVN

4245. Re: Digital phone on HF??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 00:02:39 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <3DF3DD9F.7B1A0967@sympatico.ca>
Source record: 129585

nospam wrote:
>
> Does anyone know how well this works?
> Is it better than what we have now?

Is what? better than what?

Dave

4246. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 00:03:01 UTC
From: gaschafer@attbi.com
Message-ID: <3df3ddeb.13858160@netnews.attbi.com>
Source record: 129584

On Sun, 8 Dec 2002 17:04:07 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Gary, K4FMX wrote:
>"Richard is well aware of this in AM broadcast transmitters. A 100 watt
>carrier modulated 100% with a single tone produces two side bands of 25
>watts each."
>
>Bingo!
>
>Countless times I`ve set the modulation to 100%. The antenna system
>current at the common point rises by 22.5%. R-F volts do the same thing
>but aren`t so conveniently monitored.
>
>The "common point" is recognized by the FCC as a known resistance of the
>transmission line sort. It is where power output is determined.
>
>1.225 squared is 1.5, the factor by which power delivered to the antenna
>system increases with 100% moulation.
>
>Best regards, Richard Harrison, KB5WZI
>

What do you see if you put a scope on the antenna line. What is the
difference in antenna line
voltage with no modulation and with modulation?

73
Gary K4FMX

4247. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 00:14:03 UTC
From: gaschafer@attbi.com
Message-ID: <3df3dfdd.14356396@netnews.attbi.com>
Source record: 129586

On Sun, 08 Dec 2002 16:43:14 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Gary Schafer wrote:
>> If you combine two 100 watt each transmitters that are on different
>> frequencies, into the same
>> line and put a Bird watt meter in that line, it will read greater than
>> the sum of the two transmitter
>> powers. This is with the line feeding a flat 50 ohm load. It could
>> read as high as 400 watts
>> depending on the phase relationship of the two frequencies involved.
>
>So does that mean that you can get 400 watts out of two 100 watt transmitters?
>Of course not. You have made a measurement error. We are not discussing two
>waves of different frequencies. We are discussing coherent waves. Does a
>Bird wattmeter make the same mistake with coherent waves?
>

Does it matter if they are coherent? Two voltages on the transmission
line add together don't they. If they are not coherent then the
resultant voltage will depend on the phase relationship. If
two equal coherent voltages are present don't you get the sum of the
two?

73
Gary K4FMX

4248. Re: OCXO

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 00:39:27 UTC
From: "Bob M." <xxxxx@yyyy.zzz>
Message-ID: <Fmadnf27AfCDe26gXTWcpg@comcast.com>
Source record: 129587

Search eBay for "oscillator", then go through the resulting list. You'll learn what to look for, and what to reject. There are usually dozens on there ranging from $10 to $1000. I've bought several.

Bob M.
======
<jsideburns@yahoo.ca> wrote in message
news:a701e809.0212081234.3e21029a@posting.google.com...
> Hi all, I'm looking for an OCXO or a TCXO at 10 MHz in the $200 price
> range. Does anyone know where I can buy one on line? A website would
> be great.
>
> THNX

4249. Re: RF in the shack questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 01:10:27 UTC
From: chvl67ss@adelphia.net
Message-ID: <4c3de24d.0212081710.5e24f6c5@posting.google.com>
Source record: 129588

'Doc <w5lz@cwis.net> wrote in message news:<3DF38B86.65E1BB9@cwis.net>...
> Dale,
> Putting a choke at the feed point of the antenna
> certainly couldn't hurt.
> 'Doc

Thanks Doc, any suggestions on size or turns, Dale

4250. who makes the best 6m loop or halo

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 01:25:06 UTC
From: hawaiisbigsignal@aol.com
Message-ID: <20021208202506.06393.00000720@mb-fw.aol.com>
Source record: 129589

will be mounted indoor attic

4251. Re: AM Transmitter Project

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 01:26:24 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3df3f201$0$14482$ba620e4c@news.skynet.be>
Source record: 129590

Tubes or transistors ?
Type of modulation ? Plate, cathode, etc.

73 de ON5MJ - Jacques.

4252. Re: MFJ-1762 hairpin details

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 02:08:46 UTC
From: Adam 9A4QV <alicajic.adam@pu.hinet.hr>
Message-ID: <at0ttl$csqh$1@as201.hinet.hr>
Source record: 129591

I just have pdf file with data and info, but no word about hairpin
dimensions. I already make calculation for the hairpin (wire). Computer
gives 5,9" long, 1"wide and wire 0,1" dia for the elements dipol, ref, and
director dia 1/2".
But I need original setup to compare my calculation.
Your info is highly apriciated. Thanks.
Adam, 9a4qv

"foolnaround" <foolnaround@zero.net> wrote in message
news:n027vu0sgdq73s2bhsubumrb3lkneo5ps6@4ax.com...
> I don't think it uses wire. Seems like it uses flat stock. Do you
> have a copy of the instructions? I'll dig some out for you if needed.
>
> 73
>
> On Sat, 7 Dec 2002 16:04:37 +0100, "Adam 9A4QV"
> <alicajic.adam@pu.hinet.hr> wrote:
>
> >Hello,
> >
> >Does anybody have MFJ-1762, 3 elements yagi 50mhz, hairpin dimensions
> >(hairpin dimensions & wire diameter). Thanks in advance
> >
> >Adam, 9a4qv
> >
> >
>

4253. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 02:38:52 UTC
From: gaschafer@attbi.com
Message-ID: <3df3fdca.22018276@netnews.attbi.com>
Source record: 129592

On Sun, 08 Dec 2002 17:00:29 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Gary Schafer wrote:
>> If we read 100 watts forward and 10 watts of reflected power from a
>> given load we assume
>> 90 watts gets dissipated in the load. How much power is the
>> transmitter putting out? 90 watts?
>
>That's by definition. It may be putting out 100W and dissipating
>the 10W. But that's still just a *net* output of 90W which is
>how it is defined.
>
>> What happens to the 10 watts of reflected power? Does it get
>> re-reflected back to the load. If
>> so how much power is the load really dissipating?
>
>The load dissipates 90% of the incident power.

So you are saying that with 90 watts going to the load, the load will
only absorb 81 watts and reflect 9 watts? (The watt meter shows 10
watts reflected.)

And what happens to the 9 watts or (10 watts) that is reflected?

This seems to contradict what others say about how much power the load
dissipates.

>
>> Now put an isolator at the transmitter with a load on the third port.
>> Feed the same load as
>> above. If the transmitter puts out 90 watts we should read 100 watts
>> forward and 10 watts reflected.
>
>Nope, we won't. If the isolator is dissipating all the reflected power
>and the transmitter is putting out 90 watts, we will read 90 watts
>forward and 9 watts reflected.
>
>> How much of the reflected 10 watts gets dissipated in the
>> load on the isolator and how much gets re-reflected?

>
>Ideally, all the reflected 9 watts gets dissipated in the isolator.

So with an isolator in the circuit the watt meter will read the
correct forward power but the load

will not accept all of the forward power?

>--
>cheers, CAM http://www.qsl.net/w5dxp
>
>
>

73
Gary K4FMX

4254. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 02:50:30 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <WxTI9.169447$GR5.55349@rwcrnsc51.ops.asp.att.net>
Source record: 129593

```
The A-99 is a half wave antenna. That puts it at 0 dbd.
"Tom" <truckdrivingman@hotmail.com> wrote in message
news:at03ff$e5s$00$1@news.t-online.com...
> Ok Doc,but I've cut the upper element for 29 MHz repeater operation.The CB
> days are over :-).Are you sure there's absolutely not a single dB of gain
?
>
> Tom
>
>
> "'Doc" <w5lz@cwis.net> schrieb im Newsbeitrag
> news:3DF38CE7.1A80A48E@cwis.net...
> > Tom,
> > The 'A99' has no gain on 11 meters, no matter
> > what the manufacturer says. Of course, that just
> > depends on what antenna the manufacturer compares
> > their antenna ~to~. Since most antenna makers
> > compare their antenna to a beer can in the the
> > back yard, they find that their antenna has some
> > remarkable gain characteristics.
> > 'Doc
>
>
```

4255. Re: OCXO

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 03:35:12 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <uv83rjsuol9pae@corp.supernews.com>
Source record: 129594

just type in ocxo in ebay, titles and descriptions..
also look for an HP 5328A with the high stabilty which is the HP 10811 high stabilty OCXO, one of the finest on the market...
Another optio is to look for a Racal 1992 with high stability oscillator..
However I I think you'll find a better deal on an HP 5328A..
there's several rith now andheres a list:
http://search.ebay.com/search/search.dll?MfcISAPICommand=GetResult&SortProperty=MetaEndSort&ht=1&query=5328a
good luck
hank wd5jfr
<jsideburns@yahoo.ca> wrote in message
news:a701e809.0212081234.3e21029a@posting.google.com...
> Hi all, I'm looking for an OCXO or a TCXO at 10 MHz in the $200 price
> range. Does anyone know where I can buy one on line? A website would
> be great.
>
> THNX

4256. Re: OCXO

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 03:45:24 UTC
From: dinoal7lz@aol.com
Message-ID: <20021208224524.21315.00000057@mb-cu.aol.com>
Source record: 129595

You also may want to look at getting a HP Z3801A which is a GPS receiver that disciplines a HP 10811 oscillator in the same box. Can get these for between $250-300...add a 48VDC power supply and an antenna any you've got a great shop 10MHz reference.

See "www.realhamradio.com" for details.

Dino KLï¿½S/4

4257. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 03:52:14 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212081952.2975aea0@posting.google.com>
Source record: 129596

Roy Lewallen <w7el@eznec.com> wrote in message news:<uv7d954pal8092@corp.supernews.com>..

.Roy
you will note by the comments at the bootom of this response,that I
have changed my mind with respect to 'managing' the thread
and am now going with the flow. Whatever happens ..happens.

> Art, thanks for the explanation. I have two questions.
>
> 1. You say you've improved the efficiency of a common dipole. A common
> dipole is nearly 100% efficient, so no improvement would be noticeable.
> Why do you think the very small improvement that it's possible to
> achieve is important?

When a dipole is cut for a particular frquency then it would be
difficult to say it could be beaten. If a dipole is used for several
bands then for some of these bands the PHYSICAL length is redundant.
If one can remove the redundancy
then one has gained efficiency with respect to the actual physical
length provided.
Said another way, an element in a multiband dipole has a length that
is dictated
only by a single band and is wasted when the 'dipole' is used on other
bands.

>
> 2. You say that the "radiation lobes became mainly in phase". What does
> this mean in terms of gain and pattern?

If one has a multiband dipole as described above and one was tempted
to use
all the physical length regardless of frequency used, the current
pattern would exceed 180 degrees which is not desirable. If one found
a way to have all current flow to stay on the 'positive' (additive?)
side i.e. in phase without cancellation then performance can be
improved beyond that of using the 'cut length' alone and leaving the
rest of the radiator (from a trap outward)as redundant.
The use of the word "mainly" is not to discount radiation occurred
during a phase change that may or may not be desirable. Hopefully that
will suffice for the moment the dwelling on gain.

>
> Roy Lewallen, W7EL
>
Regards
Art

Roy. If you don't mind I would like to answer the above privately.
I am concerned that when we talk 'gain' I will be pulled down into a
hole because of past writings. This is why I have posed this question
around Termans writing about a circuit that is the same as my antenna
but admittedly smaller. So that those who are familiar with him and
the antenna subject could provide their observations. In other words
this thread is not about me it is meant to be a request for a analysis
of what Terman says so that I may gain a better
insight about my experimentation . If I don't get a Email of objection
I will respond first thing in the morning. For other readers I hope
you understand that I am not being evasive or rude, I just want to
keep the
discussion civil and within the boundaries of my question otherwise
all will be lost.
Thank you for your consideration and also for your participation.Every
morsel of insight can be the last bit of the jigsaw puzzle that makes
the picture complete.
Regards
Art

> Art Unwin KB9MZ wrote:
> > 'Doc <w5lz@cwis.net> wrote in message news:<3DF2AE16.F55A4796@cwis.net>...
> >
> >>Art,
> >> I really don't think anyone was refuting Terman. I
> >>think it has more to do with how you relate ~your~
> >>antenna to what Terman describes.
> >> 'Doc
> >
> >
> > Yes you are absolutely correct
> > Because of my inexperience in antennas and relative nomenclature
> > I have been unable thru the years to communicate efficiently
> > with those that are knoweledgable in the field.
> > This has bred fraustration every year when I try to make a fresh start
> > in openly discussing my antenna. Now, just when my determination
> > started
> > to wane I read Termans explanations regarding 'resonant circuits.'
> > Now at last I have a vehicle to travel on of which every one is aware
> > so that
> > the antenna subject can be 'contained' and with the same nomenclature
> > used to explain what I have (or at least what I think I have). It is
> > this that gives me hope that we or I will be allowed a fresh start.
> > In TERMAN'S type nomenclature I have a RANDOM length dipole
> > radiator which for the most part can be considered a UNTUNED radiator,
> > since in the main there is reactance present and thus it is generaly
> > UNTUNED. At this point I really don't care how one feeds such a thing
> > tho I chose to use a delta feed.
> > I then joined (COUPLED) it to a TUNED circuit which in my case was a
> > LOOP
> > antenna with a additional variable capacitor for TUNING. I then

> > COUPLED both circuits together such that at least a third of the TUNED
> > circuit was in direct contact with the UNTUNED circuit. When using
> > this co-joined antenna I found that
> > the best of LOOP antennas came into play without the hinderance of
> > inefficiency
> > and narrow bandwidth e.t.c., especially so when I migrated towards top
> > band.
> > When I migrated the other way with respect to frequency the UNTUNED
> > circuit took on more of the role in radiation by using the TUNED
> > circiut to enact a phase change on the dipole such that radiation
> > lobes became mainly IN PHASE.
> > This is what I found, but I had no way of knowing or recognizing what
> > was an error and what was not (faulty connectors ?)
> > Now for the first time I believe I have explained it well enough so we
> > can have a reasonable discussion based on TERMAN and with the past put
> > aside.
> > This is what I am hoping for ! What does Terman and the Gurus and
> > others say
> > should have taken place in using such an antenna over varied
> > frequencies ?.
> > Doc, what do you think I should have expected with such an arrangement
> > that I experimented with ?
> > Best Regards
> > Art KB9MZ.....XG

4258. Re: RF in the shack questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 04:19:44 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF419E0.63544CE8@cwis.net>
Source record: 129597

Dale,
I don't think there's any 'rule', more of a
try this many, then a couple more, or a couple
less. Six or eight turns sounds like a good
place to start. The diameter should be what
ever the coax will fold into without forcing it,
about 6-8 inches wought to work fine (about the
size of a 3# coffee can).
'Doc

PS - Or, download Reg's program about chokes and
plug in the numbers.

4259. Re: PL259 & barrel connector loss?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 04:22:34 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF41A8A.C0577F57@cwis.net>
Source record: 129598

OC_CAM,
Just think, if he could make that bad solder
join directional, he could have a very nice
beam...
'Doc

4260. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 04:25:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv86r2pid4ik8d@corp.supernews.com>
Source record: 129599

Art Unwin KB9MZ wrote:
> Roy Lewallen <w7el@eznec.com> wrote in message
news:<uv7d954pal8092@corp.supernews.com>..
>
> .Roy
> you will note by the comments at the bootom of this response,that I
> have changed my mind with respect to 'managing' the thread
> and am now going with the flow. Whatever happens ..happens.
>
>
>
>>Art, thanks for the explanation. I have two questions.
>>
>>1. You say you've improved the efficiency of a common dipole. A common
>>dipole is nearly 100% efficient, so no improvement would be noticeable.
>>Why do you think the very small improvement that it's possible to
>>achieve is important?
>
>
> When a dipole is cut for a particular frquency then it would be
> difficult to say it could be beaten. If a dipole is used for several
> bands then for some of these bands the PHYSICAL length is redundant.
> If one can remove the redundancy
> then one has gained efficiency with respect to the actual physical
> length provided.
> Said another way, an element in a multiband dipole has a length that
> is dictated
> only by a single band and is wasted when the 'dipole' is used on other
> bands.

You're using "efficiency" in an uncommon way. That's undoubtedly
contributing to your communication difficulty. It sounds like you mean
"gain", or the amount of energy concentrated in a particular direction.
This is different from efficiency. Since you have Terman, look in the
index under "efficiency" and read his definition carefully. Then, if
you're really interested in communicating your ideas, use it only in
that way.

>>2. You say that the "radiation lobes became mainly in phase". What does
>>this mean in terms of gain and pattern?
>
>
> If one has a multiband dipole as described above and one was tempted
> to use
> all the physical length regardless of frequency used, the current

> pattern would exceed 180 degrees which is not desirable. If one found
> a way to have all current flow to stay on the 'positive' (additive?)
> side i.e. in phase without cancellation then performance can be
> improved beyond that of using the 'cut length' alone and leaving the
> rest of the radiator (from a trap outward)as redundant.
> The use of the word "mainly" is not to discount radiation occurred
> during a phase change that may or may not be desirable. Hopefully that
> will suffice for the moment the dwelling on gain.

No, it won't at all. You've been bemoaning that people haven't jumped on the bandwagon to praise your antenna. And you've accused "gurus" (unnamed, except for me by implication) of everything from contradicting Terman to ignoring revolutionary ideas. Yet you still haven't presented any quantitative indication of just what your antenna accomplishes, except lengthy and vague ramblings. Sorry, as an engineer, I'm not impressed by the vague ramblings. I am impressed by measured or even modeled performance data, to allow a quantitative comparison to the technology you claim your antenna is superior to. Apparently you have none of the latter. Until you do, there's no way to tell what you may or may not have accomplished, and you'll continue to be frustrated by the lack of enthusiam you get. Without data, your antenna is in the same class as the CFA, the patented faster-than-light-speed antenna, and all the other antennas someone has thought to be the best thing since canned beer.

>
>
>>Roy Lewallen, W7EL
>>
>
> Regards
> Art
>
> Roy. If you don't mind I would like to answer the above privately.
> I am concerned that when we talk 'gain' I will be pulled down into a
> hole because of past writings. This is why I have posed this question
> around Termans writing about a circuit that is the same as my antenna
> but admittedly smaller. So that those who are familiar with him and
> the antenna subject could provide their observations. In other words
> this thread is not about me it is meant to be a request for a analysis
> of what Terman says so that I may gain a better
> insight about my experimentation . If I don't get a Email of objection
> I will respond first thing in the morning. For other readers I hope
> you understand that I am not being evasive or rude, I just want to
> keep the
> discussion civil and within the boundaries of my question otherwise
> all will be lost.
> Thank you for your consideration and also for your participation.Every
> morsel of insight can be the last bit of the jigsaw puzzle that makes
> the picture complete.
> Regards

> Art
>

You won't get much respect for your invention until you can talk about gain, bandwidth, or some other property of your antenna in terms that can be measured or compared to others. That's simply the only way any objective person can figure out what it is that you've got. Engineers are much harder to convince than patent examiners, since we ultimately have to produce something that works.

Roy Lewallen, W7EL

4261. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 04:26:05 UTC
From: richardharrison@webtv.net
Message-ID: <26861-3DF41B5D-206@storefull-2311.public.lawson.webtv.net>
Source record: 129601

Gary, K4FMX wrote:
"What is the difference in antenna lne voltage with the modulation and without modulation?"

I gave the 122,5% current as increased with a tone modulating the carrier 100%. I noted that 1.225 squared is 1.5. This indicates the 50% power increase with 100% modulation. It also shows that since power is the product of volts times amps, 1.225xvolts is needed with the 1.225xamps to reach 1.5xpower.

The current of an amplitude modulated amplifier does not on average vary during the amplitude modulation process. This is evidence that the amplitude of the carrier is independent of the modulation. A spectrum analysis is even more convincing. The sideband displays grow and shrink with modulation while the carrier remains constant.

The carrier and its sidebands combine vectorially to produce the familiar modlated carrier display on an oscilloscope.

100% modulation squeezes the carrier to zero and doubles its value on the other direction of the modulation cycle. This produces two sidebands from a single modulating frequency. Power in these two sidebands together with the carrier is 50% greater than the carrier power alone. 1/3 of the total energy is in the sidebands. 2/3 of the total energy is in the carrier.

Suppose you have a 100% modulated 1000 watt carrier and it is impressed on 1000 ohms. The carrier will produce 1000 volts. Each sideband contains 250 watts and produces 500 volts across 1000 ohms. When carrier and both sidebands coincide in phase, their voltages add to 2000 volts on one side of the peak and add to zero volts on the other side of the peak.

4262. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 04:33:10 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF41D06.7BFF01F3@cwis.net>
Source record: 129600

JACK,
You may be right. Then again, you may not be.
Either way, you are certainly opinionated, and
while it is certainly your right to have an opinion,
it doesn't consern me much, one way or the other.
That's just my opinion, so you certainly have the
right to feel the same way. Since your opinion
is fairly obvious about me, then I would suggest
tht you never read another post of mine. Better
yet, why don't you 'block' me, then you won't
ever have to see a post from me again.
'Doc

PS - If I think a subject desreves a serious
answer, and if I can, I try to answer
it that way. If I think the question
doesn't deserve a serious answer, I don't
answer seriously. If that isn't to your
liking, bite me...

4263. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 04:47:53 UTC
From: richardharrison@webtv.net
Message-ID: <26860-3DF42079-536@storefull-2311.public.lawson.webtv.net>
Source record: 129603

Gary, K4FMX wrote:
"What is the difference in antenna line voltage with no modulation and with modulation?"

I tried to respond but fat fingered the wrong key. Don`t know if the mangled response will appear or if it is lost in cyberspace.

Short answer is the current and voltage both increase by 22.5% with 100% modulation. With no modulation you don`t have the 22.5% increase. The reduction when 100% modulation falls to 0% modulation is the reciprocal or 100/122.5 or 0.816 times the 100% modulated voltage or current.

Best regards, Richard Harrison, KB5WZI

4264. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 04:59:22 UTC
From: Looper <looperinc@netscape.net>
Message-ID: <3DF4232A.5060909@netscape.net>
Source record: 129602

Don't know about gain but I v been using one from 40 to 6 meters for the
last 15 years and you cant beat them.
Lou

Truckdrivingman wrote:

> Hi OMs
> May someone tell me the gain of the Solarcon Antron99 ? I've heard something
> of 6.88 dBi.Is this correct ?
>
> 73
> Tom
>
>
>

4265. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 05:16:53 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF42745.5010809@ieee.org>
Source record: 129604

Gary Schafer wrote:
> Does it matter if they are coherent? Two voltages on the transmission
> line add together don't they. If they are not coherent then the
> resultant voltage will depend on the phase relationship. If
> two equal coherent voltages are present don't you get the sum of the
> two?

Not from a Bird wattmeter if they are traveling in opposite directions.
The Bird wattmeter uses vector addition to subtract out one of the waves.
It will read either forward joules/sec or reflected joules/sec depending
on where the slug is set.

Steve is correct when he says a wave with the voltage and current in phase
contains an energy equal to V*I joules/sec. The conservation of energy
principle will not allow anyone to get any more or less energy out of
that wave than V*I joules/sec. The voltage equation must balance, the
current equation must balance, and the energy equation must balance.

Nobody can add two and only two 70.7V at 1.414A waves to get 141.4V at
2.828A. If one could do that, one could get 400W out of two IC-706's.
--
cheers, CAM http://www.qsl.net/w5dxp

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4266. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 05:22:27 UTC
From: gaschafer@attbi.com
Message-ID: <3df4287e.32952710@netnews.attbi.com>
Source record: 129605

On Sun, 8 Dec 2002 22:26:05 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Gary, K4FMX wrote:
>"What is the difference in antenna lne voltage with the modulation and
>without modulation?"
>
>I gave the 122,5% current as increased with a tone modulating the
>carrier 100%. I noted that 1.225 squared is 1.5. This indicates the 50%
>power increase with 100% modulation. It also shows that since power is
>the product of volts times amps, 1.225xvolts is needed with the
>1.225xamps to reach 1.5xpower.
>
>The current of an amplitude modulated amplifier does not on average vary
>during the amplitude modulation process. This is evidence that the
>amplitude of the carrier is independent of the modulation. A spectrum
>analysis is even more convincing. The sideband displays grow and shrink
>with modulation while the carrier remains constant.
>
>The carrier and its sidebands combine vectorially to produce the
>familiar modlated carrier display on an oscilloscope.
>
>100% modulation squeezes the carrier to zero and doubles its value on
>the other direction of the modulation cycle. This produces two sidebands
>from a single modulating frequency. Power in these two sidebands
>together with the carrier is 50% greater than the carrier power alone.
>1/3 of the total energy is in the sidebands. 2/3 of the total energy is
>in the carrier.
>
>Suppose you have a 100% modulated 1000 watt carrier and it is impressed
>on 1000 ohms. The carrier will produce 1000 volts. Each sideband
>contains 250 watts and produces 500 volts across 1000 ohms. When
>carrier and both sidebands coincide in phase, their voltages add to 2000
>volts on one side of the peak and add to zero volts on the other side of
>the peak.
>

Which gives a peak envelope power of 4000 watts. Greater than the sum
of the power in the carrier and the side bands. The only way to
determine peak envelope power is to first add the
voltages and or currents. It can not be obtained by directly adding
the powers together.

73
Gary K4FMX

4267. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 05:30:59 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF42A93.50801@ieee.org>
Source record: 129606

Gary Schafer wrote:

> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>The load dissipates 90% of the incident power.
>
> So you are saying that with 90 watts going to the load, the load will
> only absorb 81 watts and reflect 9 watts? (The watt meter shows 10
> watts reflected.)

The wattmeter does not show 10 watts reflected if the forward power is
90 watts. It shows 9 watts reflected. 10% of the forward power is
reflected.

> And what happens to the 9 watts or (10 watts) that is reflected?

It is either totally reflected, partially reflected, or not reflected
at the transmitter. In the real world it is hard to tell unless you
have an antenna tuner in which case the reflected power is totally
re-reflected. You might understand the following better.

90W XMTR---tuner----100W forward, 10W reflected----Load

> This seems to contradict what others say about how much power the load
> dissipates.

What does? The load dissipates forward power minus reflected power.

> So with an isolator in the circuit the watt meter will read the
> correct forward power but the load will not accept all of the
> forward power?

The load accepts only 90% of the forward power. A correct wattmeter
will read the correct forward power whether it is 100W or 90W. If
the forward power is 100W, the load will accept 90W and reflect 10W.
If the forward power is 90W, the load will accept 91W and reflect 9W.
--
cheers, CAM http://www.qsl.net/w5dxp

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4268. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 05:33:10 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF42B16.8040806@ieee.org>
Source record: 129607

CW wrote:
> The A-99 is a half wave antenna. That puts it at 0 dbd.

If it is a vertical, it gives it gain over a 1/4WL vertical.
--
cheers, CAM http://www.qsl.net/w5dxp

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4269. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 05:39:58 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF42CAE.5000907@ieee.org>
Source record: 129608

Art Unwin KB9MZ wrote:
> If one has a multiband dipole as described above and one was tempted
> to use
> all the physical length regardless of frequency used, the current
> pattern would exceed 180 degrees which is not desirable.

That's much too broad a statement, Art. G5RV selected his 1.5WL
on 20M for the cloverleaf pattern. I love the multi-lobed patterns
I get on the higher bands with my 130 ft. dipole. A resonant dipole
gives a couple of ~6dBi lobes. I get four lobes with 10dBi each.
For some purposes, that is more desirable than a resonant dipole.
--
cheers, CAM http://www.qsl.net/w5dxp

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4270. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 05:57:12 UTC
From: gaschafer@attbi.com
Message-ID: <3df42faf.34793338@netnews.attbi.com>
Source record: 129609

On Sun, 08 Dec 2002 23:16:53 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Gary Schafer wrote:
>> Does it matter if they are coherent? Two voltages on the transmission
>> line add together don't they. If they are not coherent then the
>> resultant voltage will depend on the phase relationship. If
>> two equal coherent voltages are present don't you get the sum of the
>> two?
>
>Not from a Bird wattmeter if they are traveling in opposite directions.
>The Bird wattmeter uses vector addition to subtract out one of the waves.
>It will read either forward joules/sec or reflected joules/sec depending
>on where the slug is set.
>

But a Bird watt meter does do just that. It does not distinguish which
direction the voltage is coming from, only the current direction. That
is why the Bird watt meter reads higher forward
power when there is reflected power present.

That is also why the Bird watt meter will read 100 watts forward and
100 watts reflected when
there is an open or no line connected to the meter output side. There
is no current to be read, only voltage. That is why it tells you there
is 100 watts when there is really no power flowing.

73
Gary K4FMX

4271. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 07:20:15 UTC
From: gaschafer@attbi.com
Message-ID: <3df43aff.37689899@netnews.attbi.com>
Source record: 129610

On Sun, 08 Dec 2002 23:30:59 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Gary Schafer wrote:
>
>> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>>The load dissipates 90% of the incident power.
>>
>> So you are saying that with 90 watts going to the load, the load will
>> only absorb 81 watts and reflect 9 watts? (The watt meter shows 10
>> watts reflected.)
>
>The wattmeter does not show 10 watts reflected if the forward power is
>90 watts. It shows 9 watts reflected. 10% of the forward power is
>reflected.
>
>> And what happens to the 9 watts or (10 watts) that is reflected?
>
>It is either totally reflected, partially reflected, or not reflected
>at the transmitter. In the real world it is hard to tell unless you
>have an antenna tuner in which case the reflected power is totally
>re-reflected. You might understand the following better.
>
>90W XMTR---tuner----100W forward, 10W reflected----Load

This is what I was describing but you ignored the 100 watt and 10 watt
reading.

>
>> This seems to contradict what others say about how much power the load
>> dissipates.
>
>What does? The load dissipates forward power minus reflected power.
>
>> So with an isolator in the circuit the watt meter will read the
>> correct forward power but the load will not accept all of the
> > forward power?
>
>The load accepts only 90% of the forward power. A correct wattmeter
>will read the correct forward power whether it is 100W or 90W. If
>the forward power is 100W, the load will accept 90W and reflect 10W.
>If the forward power is 90W, the load will accept 91W and reflect 9W.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>

You are missing the question or I am missing the answer. We started out with a 90 watt
transmitter and a watt meter inline feeding a load. The watt meter reading 100 watts forward
power READING and 10 watts reflected power READING.
Let's use the tuner at the transmitter as you show, then the watt meter then the load.

The question was how much power is dissipated in the load and how much power was re-reflected of the 10 watts that got reflected back to the transmitter (in this case back to the tuner). I am assuming that the watt meter reads 100 watts forward (rather than 90) because of the re-reflected 10 watts?

You say that "The load dissipates forward power minus reflected power". In this case that would be 90 watts dissipated by the load. If the load dissipates 90 watts and the transmitter is only putting out 90 watts, where does the 10 watts reflected power come from?

Now remove the tuner and add the isolator in its' place at the transmitter, still with 90 watts out of the transmitter.
Will the watt meter still read 100 watts forward and 10 watts reflected, or will
it now only read 90 watts forward and 9 watts reflected or something else.
In this case are you saying that only 81 watts will be dissipated in the load and 9 watts
reflected? Then the 9 reflected watts will be absorbed by the isolators load.

You seem to be saying that when the isolator is added that there will be less power absorbed by the load and less reflected power?

73
Gary K4FMX

4272. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 08:48:50 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212090048.4c7953df@posting.google.com>
Source record: 129611

aunwin@insightbb.com (Art Unwin KB9MZ) wrote in message
>
> When a dipole is cut for a particular frquency then it would be
> difficult to say it could be beaten. If a dipole is used for several
> bands then for some of these bands the PHYSICAL length is redundant.

Seems to me it would be redundant period. The only thing that really
matters is efficient matching. Say with Cecils tuned line setup. Thats
efficient matching for all bands concerned. Better than most auto
tuners at the feedpoint I bet.

> If one can remove the redundancy
> then one has gained efficiency with respect to the actual physical
> length provided.
> Said another way, an element in a multiband dipole has a length that
> is dictated
> only by a single band and is wasted when the 'dipole' is used on other
> bands.

Well, maybe if you limit yourself to a coax feed. An tuner at the
feedpoint does the same job as your antenna design. I'm still
convinced that your loop that is attached to the dipole is nothing but
a matching device. It's not really acting like a loop anymore. It's
acting more like a delta match of sorts. Look at a picture of a delta
match. Then envision making it a rectangle instead of a triangle. It
will still do the same job. To me , it seems simple enough. And it is
a viable antenna if thats what you want. I don't see why this causes
you so much angst. Also, the modeling I did on that antenna seemed to
confirm my thinking behind that antenna. As far as gain, there should
be little if any difference from a equal length dipole fed in any
other manner.

MK

4273. WIDEBAND MAGNETIC LOOP

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 09:43:49 UTC
From: Maarten Hagg <maartenmiriam@hetnet.nl>
Message-ID: <at1okonok1@reader10.wxs.nl>
Source record: 129612

LOOK @
http://home.hetnet.nl/~maartenmiriam/index.html

4274. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 09:47:48 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <cop8vugnb7pbj9u9j2c2vonkusag6h9d3b@4ax.com>
Source record: 129613

On 8 Dec 2002 15:25:24 -0800, aunwin@insightbb.com (Art Unwin KB9MZ) wrote:

>
>I would assume he is speaking of a loop antenna alone where my
>concerns are
>it's characteristics when coupled to another radiator. I was thinking
>that certain characteristics may well change. I might add that I did
>change the
>loop to one that would radiate in the same plain as the rest of the
>radiator
>per your prior suggestion
>

Hi Art,

It is alright if you want to separate the issue of gain from drive point Z, bandwidth or the like, but you dig a fresh hole when in the space of 3 sentences you abandon the gain line only to pick it up again with:
>that would radiate in the same plain as the rest of the radiator
Radiation must eventually get around to gain otherwise you have nothing to say - and certainly less about Z. The two are unrelated except through the circumstance of luck. If this annoys you, you make your own bad luck through poor terminology and intermingling of unrelated topics.

Now, as to the epiphany of Terman. That is all good and well, too bad you didn't read all the postings that tried to inform you of this since last summer when many offered. Simply review the archive to the many postings that you left unanswered about the nature of coupling between your elements. Most often they were described as variants of loose, critical, and over coupling to reveal characteristics of narrow bandedness to double humped resonances with broad bandedness. You will find exactly these issues discussed and illustrated in Terman in the chapters surrounding the section you recite.

73's
Richard Clark, KB7QHC

4275. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 10:27:41 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <at1r6j$bf3$1@slb1.atl.mindspring.net>
Source record: 129614

Cecil:

[snip]
> But a wattmeter that actually measures the watts directly gets the same
> results as the Bird. Do you run your transmitted signal through a
wattmeter
> that actually measures the watts directly, Peter? If so, you must love
QRP. :-)
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

No, of course I don't.

And I don't use a Bird "in-line" while "on-air" either. In fact the only
meter I use while
"tuning" my HF antennas is the reflected power indicator built into my
transceiver, which
I tune for a "dip" so that the transceiver is seeing 50 Ohms like it should.

My point was that there is probably a good reason why Bird does not have SWR
readouts on their voltage reading, 50 Ohm, "Wattmeters".

Perhaps it is because the Bird meters do not actually "read" or "measure"
standing waves.

--
Peter K1PO
Indialantic By-the-Sea, FL

4276. Re: Characterizing a commercial trap

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 11:00:00 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <AXV28OGweH99EAlu@ifwtech.co.uk>
Source record: 129615

Reg Edwards wrote:
>
>It is impossible to determine anything about anything which is made
>from unknown materials.
>
On the morning after, let's both pretend you really didn't say that...

>But for an electrical device which appears to be made from ordinary
>materials an ordinary practical person would just put the expected
>amount of power into it, hold his palm against it, and if after a
>minute or two it was no more than pleasantly warm he would declare it
>suitable for the purpose intended and sign the certificate.
>'Measurements' completed satisfactorily!
>
Hey, get back on your own side of the argument! :-)) You're the one
who was saying that trap loss could be *calculated*.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

4277. Re: MFJ-1762 hairpin details

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 12:38:10 UTC
From: k1bqt@aol.com
Message-ID: <20021209073810.02762.00000253@mb-cq.aol.com>
Source record: 129616

Adam--

Sometimes, there's nothing like "reality" for solving a practical problem. When I designed this antenna for MFJ, I calculated somewhere around 5" for the hairpin. I then used a shorting bar and two parallel strips of aluminum to determine the exact length. Given the myriad of variables that were operating, that approach made the most sense to me--and it took about 10 minutes to resolve. Good luck with it.

73

Rick K1BQT

4278. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 12:57:45 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <dr0J9.51549$hK4.4450116@bgtnsc05-news.ops.worldnet.att.net>
Source record: 129617

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DF3B1B5.3010409@ieee.org...

> > In the superposition of multiple vector voltages and currents, it is the
> > multiple individual vector voltages and currents that add, not the
multiple
> > individual scalar powers.
>
> That's what you say and you are wrong as can be seen from your magic
energy
> machine at: http://www.qsl.net/w5dxp/magic.gif Would you mind changing
that
> diagram to make it correct? As far as I can determine, it is exactly what
> you believe.
>

If I e-mail you a superposition diagram would you post it underneath your's
at the same web site, without adding any comments? (I will not comment on
your diagram)

Steve VE9SRB

4279. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 13:06:58 UTC
From: murphys@comcast.net
Message-ID: <fb5e668b.0212090506.15cb8248@posting.google.com>
Source record: 129618
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<asqg82$r97$1@knossos.btinternet.com>...
> Dear Brian,
>
> Regardless of line and load impedances and what the swr meter may be
> reading, if the line is sensibly lossless then all the power output from the
> transmitter must be dissipated in the load. Where else is the power to go?
>
> How can a professional possibly disagree with such a simple and obvious
> statement?
> ---
> Reg, G4FGQ

Hi

What's confusing me is that I was always under the impression that maximum power can only be transferred if the Zout from one stage was equal to the Zin of the next. That being the case, then how could all of the output power be transferred to the load in a mismatched condition? What am I missing? Isn't reflected power just that, power not absorbed by the load being reflected back to the source? Isn't this what damages circuitry?

Unless I'm totally missing something, I have to answer the original question this way:

The forward power measurement would be: TX power + Reflected power, and the load would dissipate TX power - Reflected power, the reflected power would be dissipated in the source or along the transmission line, if it were imperfect.

Isn't this the case?

73, Steve

4280. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 13:12:46 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212090512.1fa4dd1f@posting.google.com>
Source record: 129519

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DF42B16.8040806@ieee.org>...
> CW wrote:
> > The A-99 is a half wave antenna. That puts it at 0 dbd.
>
> If it is a vertical, it gives it gain over a 1/4WL vertical.

Which is very little. .3 db??? I think, comparing elevated 1/4 wave
ground planes vs elevated 1/2 wave verticals on VHF where the height
in WL is a few waves. In the real world, the degree of feedline
decoupling would probably determine the winner. MK

4281. Re: Dual Band Antenna Sought

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 13:34:14 UTC
From: Rich <rk911@ANTISPAM.yahoo.com>
Message-ID: <4t69vu0ida3s0pn8uk22oc6ts3gs9ct275@4ax.com>
Source record: 129520

hi, jim. sounds promising! does he have a web site or e-mail
address??

73,

rich, n9dko

On Sun, 08 Dec 2002 22:17:36 GMT, "Phantom" <newt@aol.com> wrote:

>They do exist ! I use the 500C made by Austin Custom antennas in N.H. His
>call is K1QIZ and his antenna are super. Now they are NOT 5/8 wl but I have
>tested these antennas and compared them to the normal antennas (being the
>normal 5/8 wl) and found them to perform better. The reason is they are
>center fed with a special feed system and the take off angle is on the
>horizon as compared to most ham antennas that you buy
>
>Hope this helps
>
>Jim WA3MEJ
>
>"Rich" <rk911@ANTISPAM.yahoo.com> wrote in message
>news:tp07vussvm98giv5ff8jncjvnjro27nl98@4ax.com...
>> I'm looking for a dual-band (144/440) mobile 5/8 antenna with a 3/8x24
>> base, not an NMO base. I've been told that this item may not exist.
>> 1/4 wave antennas with the 3/8x24 base antennas are very common but
>> that's not what I want. Any leads? I'm currently checking the web
>> sites of all the major antenna mfg's but I was hoping someone here
>> would have a lead. Thanks.
>>
>> 73,
>>
>> Rich, N9DKO
>>
>

4282. Re: who makes the best 6m loop or halo

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 13:36:54 UTC
From: K4SQR@juno.com
Message-ID: <7c8be5b4.0212090536.175a70a2@posting.google.com>
Source record: 129521

Check Par electronics model; www.parelectronics.com Becomming popular
on East Coast. Well made antenna.

Good luck,
Jim

hawaiisbigsignal@aol.com (Hawaiisbigsignal) wrote in message
news:<20021208202506.06393.00000720@mb-fw.aol.com>...
> will be mounted indoor attic

4283. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 13:49:32 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DF49F6C.90308@tampabay.rr.com>
Source record: 129522

okay guys
according to the website www.universal-radio.com here is what they call
an A99

The Solarcon A99 is a half wave over a quarter wave variable mutual
inductance antenna for 10 to 17 meters. It features the Solarcon twin
ring Adjust-A-Match system to obtain the optimum SWR. Simply raise the
rings to the raise the frequency or lower the lower rings to lower the
resonant frequency.

since it is more like a J-pole wouldnt it have about 3db of gain?

'Doc wrote:
>
> Tom,
> The 'A99' is a 1/2 wave antenna. If you compare a 1/2 wave
> to a 1/2 wave at the same frequency, they should be the same,
> right? That means there is no gain, or it has a gain of '1'.
> Yes, I'm sure there's no gain.
> 'Doc

4284. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 14:07:44 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <uv98tv2bc0198a@corp.supernews.com>
Source record: 129523
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

If the transmitter is matched to the load presented to it at the tx end of the coax, all of the power reflected by the mismatched antenna will be re-reflected back towards the antenna when it reaches the Tx. All of the Tx power will eventually either be radiated by the antenna or disipated by the feed line loss. If the feedline loss is fairly low to begin with (as in a typical HF installation) then very little total power will be lost in the feed line - the vast majority of it will eventually be radiated by the antenna.

4285. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 14:10:22 UTC
From: Doz <doz@postmaster.com>
Message-ID: <3df4a461$0$4784$fa0fcedb@lovejoy.zen.co.uk>
Source record: 129524

Lovely antenna.. I took mine down and used a grinder on it!

"Truckdrivingman" <truckdrivingman@hotmail.com> wrote in message
news:asvi54$uel3f$1@ID-137411.news.dfncis.de...
> Hi OMs
> May someone tell me the gain of the Solarcon Antron99 ? I've heard
something
> of 6.88 dBi.Is this correct ?
>
> 73
> Tom
>
>

4286. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 14:11:55 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DF4A4AB.3090907@tampabay.rr.com>
Source record: 129525

here is a website giving expanded details of the A99

http://www.qsl.net/kg6aoh/a99/

'Doc wrote:
>
> Tom,
> The 'A99' is a 1/2 wave antenna. If you compare a 1/2 wave
> to a 1/2 wave at the same frequency, they should be the same,
> right? That means there is no gain, or it has a gain of '1'.
> Yes, I'm sure there's no gain.
> 'Doc

4287. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 14:16:10 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <uv99dpdbvdp1b3@corp.supernews.com>
Source record: 129526
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

If the transmitter output circuitry is not properly matched to the load presented to it by the tx end of the feed line then all of the power generated by the tx will not couple into the feedline (and thus not be shown as forward power on the meter). This may cause excessive disipation in the final tx stage and may be what some are contributing to "power being reflected back into the transmitter" and causing damage. Most modern solid state output circuits now have a fold-back circuit to reduce the generated power and protect the output stage when the load is not correct. The old tube circuits had tune and load controls to permit the operator to match the output to a variety of load impedances.

4288. AM Peak Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 14:19:45 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <UD1J9.31103$5P3.2116771@newsfeed.slurp.net>
Source record: 129527

RE: Previous clips below the * * * *

Peak envelope power is related to zero volts/amps/watts, your choice, and the respective maximum of that unit -- not the peak-peak excursion of the composite RF waveform as viewed in the time domain (a transmitter does not produce "negative power").

There is sometimes confusion of average and peak values when discussing this subject. Following is a paste from a spreadsheet showing the various derivations and values for the conditions stated.

GIVEN:

VSWR = 1:1
1,000 ohm Impedance (R)
1 kW Unmod Carrier Power

and

Avg Volts = (1 + Mod Index) * SQRT(VSWR * Unmod Avg Carrier Pwr * R)
Peak Volts = Avg Volts * 1.414
Peak Power = Peak Volts^2 / R

THEN, for SINEWAVE AMPLITUDE MODULATION

Modulation % 0 100
Mod Index 0.00 1.00

E avg (V) 1,000 2,000
E peak (V) 1,414 2,828
Pk Pwr (kW) 40 160

R. Fry

* *

> >Suppose you have a 100% modulated 1000 watt carrier and it is impressed
> >on 1000 ohms. The carrier will produce 1000 volts. Each sideband
> >contains 250 watts and produces 500 volts across 1000 ohms. When
> >carrier and both sidebands coincide in phase, their voltages add to 2000
> >volts on one side of the peak and add to zero volts on the other side of
> >the peak.

> Which gives a peak envelope power of 4000 watts. Greater than the sum
> of the power in the carrier and the side bands. The only way to
> determine peak envelope power is to first add the
> voltages and or currents. It can not be obtained by directly adding

> the powers together.

4289. Anyone else using a Cushcraft 148-10S ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 14:22:24 UTC
From: Doz <doz@postmaster.com>
Message-ID: <3df4a733$0$4780$fa0fcedb@lovejoy.zen.co.uk>
Source record: 129528

Just put one up.. works a treat.
Is the fwd gain correct 13.8db ?

Regards,
Doz

4290. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 14:30:19 UTC
From: richardharrison@webtv.net
Message-ID: <28968-3DF4A8FB-66@storefull-2312.public.lawson.webtv.net>
Source record: 129531

Steve wrote:
"Isn`t this the case?"

You`ve got it!

A load which accepts 90% of the energy presented, accepts 90% of the once rejected energy on the second go around. 90% of 10% leaves 1% of the first rejected energy, as twice rejected energy, to lose another 90% on its 3rd go around after which there is 0.1% of the first pass incident energy to have a fourth go at the load.

The continuous toll on the energy presented is 90% in this example, whatever the age of the the energy.

Best regards, Richard Harrison, KB5WZI

4291. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 14:34:46 UTC
From: Roger Leone <arleoneNoSpam@inreach.com>
Message-ID: <EK2J9.382$Fk3.79500404@news.inreach.com>
Source record: 129529

"> since it is more like a J-pole wouldnt it have about 3db of gain?

Dennis:

A J-pole is a vertical 1/2 wave radiator, so it is also a unity gain antenna.

Roger K6XQ

4292. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 14:40:15 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <jX1J9.11955$y14.933336@news1.east.cox.net>
Source record: 129530

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:asvqte$5bd$1@venus.btinternet.com...
> > Do Bird make SWR meters, ie., a meter with a scale graduated in SWR -
or
> have thay got more sense?
>
>

They did. The IM-89/UR Indicator, Standing Wave. 51.5 ohms, 200-400
mc.

scale shows reflected power to 50%, and VSWR to 6. Looks just like a 43
from a distance.

Pete

4293. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 14:46:51 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF4ACDB.B157A6D@cwis.net>
Source record: 129532

Dennis,

1. Since when do you believe an antenna manufacturer's
gain figures?

2. A 'J' pole antenna is a 1/2 wave length antenna, so
you're correct, an 'A99' has as much gain as a 'J'-
ple antenna. None.

'Doc

4294. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 14:49:30 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF4AD7A.DD9F328E@cwis.net>
Source record: 129533

Dennis,
Which only confirms what I said.
'Doc

4295. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 15:07:24 UTC
From: richardharrison@webtv.net
Message-ID: <17818-3DF4B1AC-25@storefull-2314.public.lawson.webtv.net>
Source record: 129534

Gary,K4FMX rote:
"If the load dissipates 90 watts and the transmitter is only putting out 90 watts, where does the 10 watts come from?"

Who`s on first? It comes from current and previous reflections. The transmitter has to produce only an insignificant bit of power in excess of 90 watts to permit an accumulation of reflected power to total 10 watts. This power is not delivered by the transmitter at the instant it is being displayed. Like bags on an airport carrousel, the power was previously deposited and is just going around and around.

Best regards, Richard Harrison, KB5WZI

4296. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 15:37:14 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4B8AA.2060502@ieee.org>
Source record: 129535

Gary Schafer wrote:
> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>The Bird wattmeter uses vector addition to subtract out one of the waves.
>>It will read either forward joules/sec or reflected joules/sec depending
>>on where the slug is set.

> But a Bird watt meter does do just that. It does not distinguish which
> direction the voltage is coming from, only the current direction. That
> is why the Bird watt meter reads higher forward
> power when there is reflected power present.

The forward power is actually there. That's why there are greater losses
in coax when the SWR is high. Please sit down and do the vector math
graphically for yourself. Assuming all the boundary conditions are met,
adding the current vector to the voltage vector yields a signal proportional
to the actual forward power. Subtracting the current vector from the voltage
vector yields a signal proportional to the actual reflected power.

> That is also why the Bird watt meter will read 100 watts forward and
> 100 watts reflected when
> there is an open or no line connected to the meter output side. There
> is no current to be read, only voltage. That is why it tells you there
> is 100 watts when there is really no power flowing.

There is energy flowing, i.e. power, and there is current flowing. If we
are dealing with 50 ohm coax, the forward voltage will be 70.7V and the
forward current will be 1.414A. The reflected voltage will be 70.7V and
the reflected current will be 1.414A. The peak (loop) voltage will be 141.4V.
The peak (loop) current will be 2.828A. You can measure all of this. That
current heats up the coax. Why do you think there is no energy flow?

I don't know of any RF engineers who haven't, in one way or another, been
seduced by the steady-state model. In reality, true steady-state doesn't
exist for AC since the voltage and current are continuously changing. RMS
values are averages invented by the human mind to make things easier for us.
--
cheers, CAM http://www.qsl.net/w5dxp

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4297. Re: MFJ-1762 hairpin details

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 15:46:32 UTC
From: Adam 9A4QV <alicajic.adam@pu.hinet.hr>
Message-ID: <at2dr0$euhu$1@as201.hinet.hr>
Source record: 129537

Well understood, thanks for all.
Will see how will my desisn work.
73!
Adam, 9a4qv

"Rick Littlefield" <k1bqt@aol.com> wrote in message
news:20021209073810.02762.00000253@mb-cq.aol.com...
> Adam--
>
> Sometimes, there's nothing like "reality" for solving a practical problem.
When
> I designed this antenna for MFJ, I calculated somewhere around 5" for the
> hairpin. I then used a shorting bar and two parallel strips of aluminum to
> determine the exact length. Given the myriad of variables that were
operating,
> that approach made the most sense to me--and it took about 10 minutes to
> resolve. Good luck with it.
>
> 73
>
> Rick K1BQT

4298. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 15:51:04 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4BBE8.6080108@ieee.org>
Source record: 129536

Gary Schafer wrote:
> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>90W XMTR---tuner----100W forward, 10W reflected----Load
>
> This is what I was describing but you ignored the 100 watt and 10 watt
> reading.

Nope, your description didn't include the tuner. The tuner allows an impedance match that blocks any reflected power from being incident to the transmitter. Your example allowed reflected power to flow into the transmitter. That is a very complicated situation.

> You are missing the question or I am missing the answer. We started
> out with a 90 watt
> transmitter and a watt meter inline feeding a load. The watt meter
> reading 100 watts forward
> power READING and 10 watts reflected power READING.
> Let's use the tuner at the transmitter as you show, then the watt
> meter then the load.

The tuner makes things very simple if it is tuned for a match.

> The question was how much power is dissipated in the load and how much
> power was re-reflected of the 10 watts that got reflected back to the
> transmitter (in this case back to the tuner). I am assuming that the
> watt meter reads 100 watts forward (rather than 90) because of the
> re-reflected 10 watts?

With the tuner tuned to a match, we can measure zero reflected power incident upon the source and 90W being supplied by the source.

> You say that "The load dissipates forward power minus reflected
> power". In this case that would be 90 watts dissipated by the load.
> If the load dissipates 90 watts and the transmitter is only putting
> out 90 watts, where does the 10 watts reflected power come from?

It is injected into the line during the transient buildup to steady-state conditions. That 10 watts is joules/sec supplied by the source that has not reached the load. At any instant, the 90 watts out of the source is not the same 90 watts that is being accepted by the load. The transmission line is a delay line.

> Now remove the tuner and add the isolator in its' place at the
> transmitter, still with 90 watts out of the transmitter.
> Will the watt meter still read 100 watts forward and 10 watts
> reflected, or will
> it now only read 90 watts forward and 9 watts reflected or something

> else.

With the isolator dissipating all the reflected power, the wattmeter
will read a forward power equal to the source power, i.e. 90 watts.

> In this case are you saying that only 81 watts will be dissipated in
> the load and 9 watts
> reflected? Then the 9 reflected watts will be absorbed by the
> isolators load.
>
> You seem to be saying that when the isolator is added that there will
> be less power absorbed by the load and less reflected power?

Exactly. The isolator is absorbing 9 watts that is never available to the
load. There will be less power incident upon the load and therefore less
power reflected.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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4299. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 15:51:34 UTC
From: richardharrison@webtv.net
Message-ID: <2452-3DF4BC06-180@storefull-2315.public.lawson.webtv.net>
Source record: 129547

Art, KB9MZ wrote:
"If a dipole is used for several bands then for some of these bands the PHYSICAL length is redundant."

Physical length scales to electrical length.

Since we are using Terman, please look at Table 23-1 on page 871 of his 1955 edition. Directive gain is a function of wire lngth. Ganted, energy becomes re-directed at wire lengths considerably in excess of 1/2-wavelength. Redundant may not be the best description of excess wire as Cecil noted, he prizes contacts from lobes not perpendicular to the wire.

Note also in Table 23-1, the tiny elementary dipole has a 1.5 gain ratio with an isotropic. A 1/2-wave wire in space has a 1.64 gain ratio over the isotropic. The extra gain of the 1/2-wave antenna is not redundant if more is better.

Best regards, Richard Harrison, KB5WZI

4300. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 15:56:17 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4BD21.50104@ieee.org>
Source record: 129538

Peter O. Brackett wrote:
> My point was that there is probably a good reason why Bird does not have SWR
> readouts on their voltage reading, 50 Ohm, "Wattmeters".

Yep, and that good reason is probably economics. If Bird could make
their normal profit on the additional cost, do you doubt that they
would do it?
--
cheers, CAM http://www.qsl.net/w5dxp

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4301. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:00:15 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4BE0F.9050407@ieee.org>
Source record: 129539

VE9SRB wrote:
> If I e-mail you a superposition diagram would you post it underneath your's
> at the same web site, without adding any comments? (I will not comment on
> your diagram)

Of course not because I refuse to post errors on my web site without
commenting on them. Just correct my diagram so there is not an extra
50 watts available. That shouldn't be too difficult.
--
cheers, CAM http://www.qsl.net/w5dxp

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4302. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:04:47 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4BF1F.80909@ieee.org>
Source record: 129540
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Steve N8NM wrote:
> What's confusing me is that I was always under the impression that
> maximum power can only be transferred if the Zout from one stage was
> equal to the Zin of the next. That being the case, then how could all
> of the output power be transferred to the load in a mismatched
> condition? What am I missing?

What you are missing is that all the output power is transferred to the
load but the maximum available output power is not transferred to the load.
The "output power" is defined as whatever power is being output under
any conditions. The "maximum available output power" is the power output
under matched conditions. There's a big difference.
--
cheers, CAM http://www.qsl.net/w5dxp

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4303. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:07:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv9fv0qp6p5fb1@corp.supernews.com>
Source record: 129541
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

The rule you quote about matching is true only under a particular set of conditions. Unfortunately, it's often quoted as being a universal Truth, which it's not.

IF you have a source with a fixed impedance, AND adjust nothing but the load impedance, then the maximum load power dissipation will occur when the load impedance is the complex conjugate of the source impedance. If the source and load are purely resistive, this means that the load impedance equals the source impedance.

So let's look at a particular case: A 141.4 volt RMS voltage source in series with a 50 ohm resistor, connected to a load resistor whose value we can vary. We'll find that, sure enough, the maximum dissipation occurs when the load resistor is 50 ohms. Its dissipation will be 100 watts. The voltage source has to produce 200 watts, since another 100 is dissipated in the source resistor. If we consider the efficiency as the ratio of the power in the load to the power produced by the voltage source, it's 50% when matched. Note, though, that although this is a good circuit for explaining what's happening, it's not necessarily a good model of a transmitter. Many transmitters exceed 50% efficiency when producing their maximum power, and may or may not be matched under this condition.

Now, between the source (that is, voltage source + source resistor) and the 50 ohm load let's connect a half wavelength of lossless 450 ohm transmission line. The line's SWR is 9:1. The forward power on the line is 278 watts, and the reverse power is 178 watts. What's the power dissipated by the load? It's 100 watts, just as before. And the voltage source is still producing 200 watts, and the source resistor is dissipating 100 watts. This is a simple voltage divider circuit you can completely analyze in a couple of minutes. The forward and reverse power on the line are of no consequence at all -- all that counts is the impedance *seen by the source*. In this case, it's 50 ohms. For that matter, we can make the transmission line impedance anything we'd like, and get any amount of reverse power we'd like, from zero (when the line impedance is 50 ohms) to anything. Yet the voltage source, source resistor, and load resistor dissipations will remain unchanged.

But suppose we change the load to 450 ohms, leaving the line impedance at 450 ohms. The power in the load is now only 36 watts, the line's reverse power is zero, and the source resistor dissipation is 4 watts, and the voltage source is producing 40 watts. Hmm. The efficiency is now 90%! So the condition for maximum power transfer isn't the same condition as for maximum efficiency. Anyway, next put a tuner at the

source end of the line to transform the 450 ohms looking into the line, to 50 ohms. The load (and source resistor) dissipation will increase to 100 watts. On the line, the forward power is 100 watts and the reverse power is zero. Now move the tuner to the output end of the line, leaving the adjustment the same. You'll find that the load power is still 100 watts, the source resistor power still 100 watts, and the voltage source is still producing 200 watts. But the line's forward power is now 278 watts and reverse power 178 watts. You see, the only thing that's important is the impedance *seen by the source*. Reverse power has nothing to do with source or load dissipation.

One last thing to think about. Instead of fixing the source impedance at 50 ohms and varying the load impedance, try fixing the load impedance and varying the source impedance while leaving the voltage of the voltage source unchanged. What value of source impedance will produce the maximum power in the load? Hint: It's not 50 ohms.

Roy Lewallen, W7EL

Steve N8NM wrote:
> Hi
>
> What's confusing me is that I was always under the impression that
> maximum power can only be transferred if the Zout from one stage was
> equal to the Zin of the next. That being the case, then how could all
> of the output power be transferred to the load in a mismatched
> condition? What am I missing? Isn't reflected power just that, power
> not absorbed by the load being reflected back to the source? Isn't
> this what damages circuitry?
>
> Unless I'm totally missing something, I have to answer the original
> question this way:
>
> The forward power measurement would be: TX power + Reflected power,
> and the load would dissipate TX power - Reflected power, the reflected
> power would be dissipated in the source or along the transmission
> line, if it were imperfect.
>
> Isn't this the case?
>
> 73, Steve

4304. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:09:00 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4C01C.9050700@ieee.org>
Source record: 129543

Mark Keith wrote:

> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>If it is a vertical, it gives it gain over a 1/4WL vertical.
>
> Which is very little. .3 db??? I think, comparing elevated 1/4 wave
> ground planes vs elevated 1/2 wave verticals on VHF where the height
> in WL is a few waves. In the real world, the degree of feedline
> decoupling would probably determine the winner. MK

Doesn't a half-wave vertical have the same gain relationship to a
quarter-wave vertical as a full-wave dipole has to a half-wave
dipole, i.e. about 2 dB?
--
cheers, CAM http://www.qsl.net/w5dxp

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4305. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:09:26 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <We3J9.45356$vM1.3621550@bgtnsc04-news.ops.worldnet.att.net>
Source record: 129542

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DF4BE0F.9050407@ieee.org...
> VE9SRB wrote:
> > If I e-mail you a superposition diagram would you post it underneath
your's
> > at the same web site, without adding any comments? (I will not comment
on
> > your diagram)
>
> Of course not because I refuse to post errors on my web site without
> commenting on them. Just correct my diagram so there is not an extra
> 50 watts available. That shouldn't be too difficult.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>

Of course not because you refuse to post something on your web site that
might show my position correctly without having it been twisted around
through your incorrect interpretation.

Thanks anyway, it was the answer I expected.

Steve VE9SRB

4306. Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:11:04 UTC
From: derswede@aol.comspam.com
Message-ID: <20021209111104.05665.00000402@mb-fc.aol.com>
Source record: 129544

>A little like the "no cell phones" signs you get in a gas station.. nothing
>to do with sparks..
>just interference with the equipemtn for measuring the fuel.

Heh....not likely. YEARS ago, we checked gas pump electronics in a chamber....I volunteered the old Clegg FM27B I had as a 144 mhz source. 600 mW is not likely to cause anything except inattention at the pump. Legal liability only....i.e., "it is electronic and may cause a spark, so we need a warning sign." I'm more worried about causing a spark via static electricity than by cell phone.

A
(who helped design and sell the darn things years ago)

4307. Re: who makes the best 6m loop or halo

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:12:35 UTC
From: derswede@aol.comspam.com
Message-ID: <20021209111235.05665.00000403@mb-fc.aol.com>
Source record: 129545

>Check Par electronics model; www.parelectronics.com Becomming popular
>on East Coast. Well made antenna.

Motion seconded.....and mine's been up a year. Still FB here.

A

4308. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:13:26 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4C126.10203@ieee.org>
Source record: 129546

Roger Leone wrote:
> A J-pole is a vertical 1/2 wave radiator, so it is also a unity gain
> antenna.

Unity gain compared to a 1/2WL dipole. How about dBi?
--
cheers, CAM http://www.qsl.net/w5dxp

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4309. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:16:32 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <p9f9vu4deluio03us7j442sbuu63to5pib@4ax.com>
Source record: 129548

On Mon, 9 Dec 2002 05:27:41 -0500, "Peter O. Brackett"
<ab4bc@ix.netcom.com> wrote:

[snip]
|
|My point was that there is probably a good reason why Bird does not have SWR
|readouts on their voltage reading, 50 Ohm, "Wattmeters".

They could if you had a generator that could be adjusted to always
read full scale in the forward direction and for low SWR were willing
to swap slugs to read the reverse direction.

Or, as I have in my 2-meter signal generator, a dual sampler with a
2.5 KW slug in the forward arm and a 250 W slug in the reverse arm and
a dual pointer meter that reads SWR at the intersection of the
pointers.
|
|Perhaps it is because the Bird meters do not actually "read" or "measure"
|standing waves.

True, you measure standing waves with a slotted line. <g>

4310. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:21:25 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <at2fu4$7c1$1@venus.btinternet.com>
Source record: 129549

Cec sez,
> I don't know of any RF engineers who haven't, in one way or another, been
> seduced by the steady-state model.
==========

Cecil, please allow me to introduce myself . . . . . .

4311. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:25:13 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4C3E9.9060100@ieee.org>
Source record: 129550
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Roy Lewallen wrote:
> One last thing to think about. Instead of fixing the source impedance at
> 50 ohms and varying the load impedance, try fixing the load impedance
> and varying the source impedance while leaving the voltage of the
> voltage source unchanged. What value of source impedance will produce
> the maximum power in the load? Hint: It's not 50 ohms.

Could it be zero ohms? :-) That's what the power companies do - go
for maximum efficiency instead of maximum power transfer. Way back
when, someone proved that power companies would probably never
exist because they would burn themselves up trying to achieve
maximum power transfer.
--
cheers, CAM http://www.qsl.net/w5dxp

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4312. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:28:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv9h58afq75jda@corp.supernews.com>
Source record: 129551

And I. Although I have the advantage of having spent most of my career designing time-domain instrumentation, including TDR systems. . .

Roy Lewallen, W7EL

Reg Edwards wrote:
> Cec sez,
>
>>I don't know of any RF engineers who haven't, in one way or another, been
>>seduced by the steady-state model.
>
> ==========
>
> Cecil, please allow me to introduce myself . . . . . .
>
>

4313. Re: RF in the shack questions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:32:00 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <4A3J9.11962$y14.949410@news1.east.cox.net>
Source record: 129552

"Dale" <chvl67ss@adelphia.net> wrote in message
news:4c3de24d.0212080737.51edff2e@posting.google.com...
> I am running a mosely tr-33 beam on a 45ft tower I get alot of rf
> feedback in my audio on 10-15 and some parts of 20 meters, is there a
> coax choke that I can make to cure it for the 3 bands? I have other
> antennas for 17& a 10 verticle and they do not bother but they are not
> on the same tower, I have run at least 5 different radios and they all
> do it, one other thing is that my tower runs up the wall outside right
> behind the radio so when I'm using the mosely the radio is directly
> under the antenna(45ft) should that be ok? I could possibly move the
> tower behind the garage but it would still only be about 30ft away and
> most of you know its no simple job to move a tower, I have read about
> people making coax chokes but they all seem to have different turns
> and diameters, is there one size coax choke that that I can make to
> cure all 3 bands? any help would be great Dale Kb1eod

Strange you are having so much RF with a balanced antenna. Is the
RF entering on the outer braid of the coax? Is the SWR okay? I'm
wondering if you might have a bad connector at the antenna...

Try a choke balun at the antenna feedpoint, and one where the coax
enters the shack. You can use a ferrite bead kit from Palomar if you
don't want to wind a coaxial style choke.

Pete

4314. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:32:19 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4C593.30404@ieee.org>
Source record: 129553

VE9SRB wrote:

> "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
>>Of course not because I refuse to post errors on my web site without
>>commenting on them. Just correct my diagram so there is not an extra
>>50 watts available. That shouldn't be too difficult.
>
> Of course not because you refuse to post something on your web site that
> might show my position correctly without having it been twisted around
> through your incorrect interpretation.

You presented such in your magazine article, Steve, and you left out half of the energy components predicted by superposition. Why should I allow your error onto my web page uncontested? Just add whatever you need to to my diagram to make it correct. I tried to accurately reproduce your concepts. So if there's not 50 watts of extra power, please indicate exactly where the extra 50 watts comes from in:

http://www.qsl.net/w5dxp/magic.gif

Hint: if you draw another arrow into the superposer and label it "50 watts from constructive interference", your conservation of energy problem will go away.
--
cheers, CAM http://www.qsl.net/w5dxp

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4315. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:38:40 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4C710.7050609@ieee.org>
Source record: 129554

Reg Edwards wrote:
> Cec sez,
>
>>I don't know of any RF engineers who haven't, in one way or another, been
>>seduced by the steady-state model.
>
> Cecil, please allow me to introduce myself . . . . . .

Reg, does a virtual 50 ohms *cause* the V/I ratio to be 50 or
does the virtual 50 ohms *result* from the V/I ratio being 50?

You could be an exception, but virtually all RF engineers I
know, at one time or another, engage in petitio principii, i.e.
they know the answer so they assume the proof.
--
cheers, CAM http://www.qsl.net/w5dxp

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4316. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:42:00 UTC
From: Roger Leone <arleoneNoSpam@inreach.com>
Message-ID: <XB4J9.383$CI3.81066090@news.inreach.com>
Source record: 129555

> Unity gain compared to a 1/2WL dipole. How about dBi?

> cheers, CAM http://www.qsl.net/w5dxp

Cam:

As explained in the very first response to the original post, "gain" depends on what you use for a reference of comparison.

Yes, a dipole has gain over an isotropic radiator. To quote from the ARRL antenna manual: "An infinitely thin 1/2 wavelength dipole has a theoretical gain of 2.14 dB oiver an isotropic radiator (dBi). Thus, the gain of an actual antenna over a 1/2 wavelength dipole can be referred to isotropic by adding 2.14 dB to the measured gain."

Most of us think of "gain" as "gain over a dipole", since a dipole is a basic ham antenna and an isotropic radiator is not. Manufacturers base their claims of gain on all kinds of comparisons...it was that ambiguity that led the ARRL to ban gain claims from antenna ads in QST many years ago. Other publications are not so concerned about truth in advertising an allow disreputable manufactures to make all kinds of wild claims of gain.

Roger K6XQ

4317. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:50:06 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <at2hjktdb1@slb4.atl.mindspring.net>
Source record: 129556

Wes:

[snip]
> True, you measure standing waves with a slotted line. <g>
[snip]

Heh, heh... true. But measuring standing waves is only useful for single frequency systems at *relatively* high frequencies.

Slotted lines don't work very well for determining mis-match, reflected power, etc... at very low frequencies,
at DC or over broad bandwidths.

For that you need different/better instrumentation.

--
Peter K1PO
Indialantic By-the-Sea, FL

4318. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:50:43 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212090850.2a775097@posting.google.com>
Source record: 129557

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DF42CAE.5000907@ieee.org>...
> Art Unwin KB9MZ wrote:
> > If one has a multiband dipole as described above and one was tempted
> > to use
> > all the physical length regardless of frequency used, the current
> > pattern would exceed 180 degrees which is not desirable.
>
> That's much too broad a statement, Art. G5RV selected his 1.5WL
> on 20M for the cloverleaf pattern. I love the multi-lobed patterns
> I get on the higher bands with my 130 ft. dipole. A resonant dipole
> gives a couple of ~6dBi lobes. I get four lobes with 10dBi each.
> For some purposes, that is more desirable than a resonant dipole.

Cecil, I am not an expert of any kind so you should expect what you
call broad statements from one such as I. You bring the G5RV subject
up which I know is your personal delight but we have different
aproaches.I also 'can' get multi lobes which you enjoy and probably
with the similar gains. My aproach is for a antenna that is rotatable
so directionality is important to me tho not to you.
I could not possibly rotate a 130 foot dipole so I cannot follow the
excellent path that you have provided. But I sure could use your
technical knowhow
as to what one could expect if one expanded Terman and resonant
circuit teaching
on audio when it is expanded to larger things such as antemnas. If one
had the knoweledge and the comprehension of such things they could
help me to shed some light on multi frequency use,directivety and how
I seem to think that I have salvaged the desirable properties of the
loop antenna yet leaving it's faults behind. For some reason this
antenna gives me the use of all bands just like many people who wrote
for 73 magazine who somehow had connected to the house gutter by
default which has confused them. Now I have found some writings
that can be called fixed laws of nature but my brain cannot
comprehend all so that I can build on it. Cecil, could you put my
antenna sayings, claims and what have you and read what Terman said as
if you were going to follow his sayings with respect to a antenna ?
Your writings and experiments show that you are an independent thinker
and your insight would be so valuable in promoting debate....The
subject is more than just gain or the rantings of me.
Respectfully
Art

4319. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:53:04 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <lmi9vu4n3pk56t9bd6uctjvicg52umjtfc@4ax.com>
Source record: 129558

On Mon, 09 Dec 2002 09:37:14 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>true steady-state doesn't
>exist for AC since the voltage and current are continuously changing.

Hi Cecil,

This remark ranks you as an amateur for sure.

73's
Richard Clark, KB7QHC

4320. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:54:35 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <2qi9vu4agqnh66e4psvtng2a2qpoheps31@4ax.com>
Source record: 129559

On Mon, 09 Dec 2002 10:38:40 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>
>You could be an exception, but virtually all RF engineers I
>know, at one time or another, engage in petitio principii, i.e.
>they know the answer so they assume the proof.

Hi Cecil,

Your amateur status remains unclouded.

73's
Richard Clark, KB7QHC

4321. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 16:56:04 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <7si9vug4sb4l69l8phbp6p2bedo6vborju@4ax.com>
Source record: 129560

On Mon, 09 Dec 2002 10:00:15 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Of course not because I refuse to post errors on my web site without
>commenting on them.

Hi Cecil,

Seems to be the season for logic in the toilet. You comment on all
your web site postings.

73's
Richard Clark, KB7QHC

4322. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 17:03:26 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <l3j9vusq54epgh6loltrkglcb5nt7e8td0@4ax.com>
Source record: 129561

On Mon, 09 Dec 2002 12:57:45 GMT, "VE9SRB" <srbest@att.net> wrote:

>If I e-mail you a superposition diagram would you post it underneath your's
>at the same web site, without adding any comments?

Hi Steve,

That is too much to ask and is already dead on arrival as Cecil's site
already contains editorialization. In the parlance of law, this is
known as "prior restraint" and is almost always rejected as a request
of the court.

Just leave Cecil to his unrepentant ways per your earlier threat -
third party readers have easily enough information by now.

73's
Richard Clark, KB7QHC

4323. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 17:11:53 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <at2isf$bu6$1@slb2.atl.mindspring.net>
Source record: 129562

Cecil:

[snip]
> I don't know of any RF engineers who haven't, in one way or another, been
> seduced by the steady-state model. In reality, true steady-state doesn't
> exist for AC since the voltage and current are continuously changing. RMS
> values are averages invented by the human mind to make things easier for
us.
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

OK, OK... but... I'm just a simple DC engineer and I admit I was once
seduced by a steady-state model.

I had a run in with Jim Beam and Jack Daniels and I couldn't resist leaning
on her lovely steady shoulders.

She was kinda shy and had one bad eye... but her VSWR was a perfect 1.0 even
though she was mis-matched
and had increased losses in her transmission media under the mis-match!

--
Peter K1PO
Indialantic By-the-Sea, FL

4324. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 17:23:57 UTC
From: Gene Fuller <W4SZzzzzz@att.net>
Message-ID: <3DF4D1D4.23772224@att.net>
Source record: 129563

OC_CAM's Razor wrote:

[snip]

>
> You could be an exception, but virtually all RF engineers I
> know, at one time or another, engage in petitio principii, i.e.
> they know the answer so they assume the proof.
> --
> cheers, CAM http://www.qsl.net/w5dxp

Hmmm,

Sounds a lot like invoking constructive and destructive interference to make an energy equation balance.

Since neither of these components is observable in the system under debate, it would appear that you have been hoist with your own petard.

By not observable I mean more than simply not measurable due to inadequate instrumentation. It is not possible to measure the interferences you rely upon without perturbing the system under examination. This is a classic problem throughout science and engineering.

It is not acceptable to invoke circulators, perfect laboratory sources, and so on. Each of these adjuncts would completely change the system under examination.

There are many examples (perhaps an infinite number) in science where alternate analytical approaches will yield the same physical conclusions. Short of philosophical discussions there is little to support the "best" choice of one approach over the other.

One of the beauties of science and math is that, for example, solutions based on forces and momentum give exactly the same answers as solutions based on conservation of energy.

Steve chooses to use vector addition of voltages and currents; you choose to use conservation of energy. Steve does not worry explicitly about the balance of energy; you choose to create an artifice to allow you to not worry explicitly about the addition of voltages and currents.

At this point it is merely arguing about the number of angels dancing on a pin.

73,
Gene Fuller

4325. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 17:24:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uv9kfecoep254d@corp.supernews.com>
Source record: 129564
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

If you fix the load resistance at 50 ohms and vary the source resistance, zero ohms provides both the best efficiency (100%) and the maximum power dissipation in the load.

If the load is complex, Rl + jXl, the maximum load power will occur with a source impedance of 0 - jXl. Maximum efficiency (100%) will occur with a source resistance of zero, with any reactance.

Roy Lewallen, W7EL

OC_CAM's Razor wrote:
> Roy Lewallen wrote:
>
>> One last thing to think about. Instead of fixing the source impedance
>> at 50 ohms and varying the load impedance, try fixing the load
>> impedance and varying the source impedance while leaving the voltage
>> of the voltage source unchanged. What value of source impedance will
>> produce the maximum power in the load? Hint: It's not 50 ohms.
>
>
> Could it be zero ohms? :-) That's what the power companies do - go
> for maximum efficiency instead of maximum power transfer. Way back
> when, someone proved that power companies would probably never
> exist because they would burn themselves up trying to achieve
> maximum power transfer.

4326. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 17:28:31 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <3p4J9.51780$hK4.4475024@bgtnsc05-news.ops.worldnet.att.net>
Source record: 129565

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DF4C593.30404@ieee.org...
> VE9SRB wrote:
>
> > "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
>
> You presented such in your magazine article, Steve, and you left out half
> of the energy components predicted by superposition. Why should I allow
> your error onto my web page uncontested? Just add whatever you need to
> to my diagram to make it correct. I tried to accurately reproduce your
> concepts.

Well, your drawing did not accurately reproduce my concepts. The drawing
has nothing to do with my concepts, so there is no point in trying to
correct it.

>So if there's not 50 watts of extra power, please indicate
> exactly where the extra 50 watts comes from in:
>

We disagree on the principles of superposition, specifically, the vector
addition of voltage and current.

Superposition requires that multiple voltages and currents applied to a
single impedance add as vectors. I.e. two vector voltages, V1 and V2,
applied in series to an impedance (like two forward voltages in Zo), add as
Vtotal = V1 + V2. You have stated that you disagree with the vector
addition of voltage.

All that happens in transmission line as the system transitions to the
steady state is following: In the forward direction, the total forward
voltage increases through the vector addition of the multiple forward
voltages (Vtotal = V1 + V2 + V3 + ...). As the total forward voltage
increases, the total forward power increases as a function of the square of
the magnitude of the total forward voltage. In the rearward direction, the
total rearward voltage decreases through the vector addition of the multiple
rearward voltages (Vtotal = V1 + V2 + V3 + ..). As the total rearward
voltage decreases, the total rearward power decreases as a function of the
square of the magnitude of the total rearward voltage. The law of
conservation of power is satisfied at all times because the total power
flowing into the junction is equal to the total power flowing out of the
junction.

At this point, I think that you are unnecessarily trying to account for
"extra power" based on a fundamental misunderstanding of the superposition
process. The forward voltage increases, the forward power increases

appropriately. The rearward voltage decreases, the rearward power decreases appropriately. At no time is the law of conservation of power violated in this process.

Take care. This subject has taken far too much time and bandwidth for me.

Steve VE9SRB

4327. SWR Calculations/In-line Wattmeters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 17:30:24 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <Hq4J9.31159$5P3.2166233@newsfeed.slurp.net>
Source record: 129566

RE: Pastes below

SWR can be calculated directly from the output values of the forward and reflected couplers, using a microprocessor. Some of the fancier Bird meters do that, I think.

But no matter how the SWR calculation is determined (directly, or by charts), it is limited by the directivity of the forward and reflected couplers. Therefore this approach produces decreasing accuracy for low SWRs, because the output of the reflected coupler contains a progressively higher proportion of forward power, which pollutes the true value of the reflected sample.

The typical in-line wattmeter OEM says to use a 10:1 ratio for the forward and reflected slugs. With a full-scale reading from the forward element, that 10dB ratio means that the smaller element shows an equivalent SWR of ~1.93:1 at full scale. Then the calculation is being made with two values having 5% accuracy, each, AT BEST -- probably worse, because most often the meters do not read full scale in a typical application. That 5% spec also depends on a 1:1 load termination, which isn't often the case. So clearly the SWR calculations for low values get rather meaningless, and probably not worth doing with this approach for anything less than about 1.5:1.

The company from which I retired makes TV/FM/AM broadcast transmitters, and we often had cases where a customer would "measure" the output of his new transmitter with an in-line wattmeter and see an apparent discrepancy from the factory test data. But the transmitter power meter had been set quite accurately for that operating power and frequency during final test, using an optimized load and calorimeter. The transmitter metering was the more accurate of the two, but sometimes that didn't stop the buyer from "calibrating" the tx against his Bird meter.

R. Fry

>>> Do Bird make SWR meters, ie., a meter with a scale
>>> graduated in SWR - or have thay got more sense?

>> My point was that there is probably a good reason why
>> Bird does not have SWR|readouts on their voltage reading,
>> 50 Ohm, "Wattmeters".

> They could if you had a generator that could be adjusted to always
> read full scale in the forward direction and for low SWR were willing
> to swap slugs to read the reverse direction.

4328. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 17:34:31 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <lfj9vukhv14gdi2vrmn0gf8hmrbbferssr@4ax.com>
Source record: 129567

On Mon, 9 Dec 2002 09:07:24 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Gary,K4FMX rote:
>"If the load dissipates 90 watts and the transmitter is only putting out
>90 watts, where does the 10 watts come from?"
>
>Who`s on first? It comes from current and previous reflections.

Hi Richard,

I will ask Gary's question too. However I will use the original quote
from Cecil that brought it:
>
> If the isolator is dissipating all the reflected power
>and the transmitter is putting out 90 watts, we will read 90 watts
>forward and 9 watts reflected.
>
Where is the 9W coming from? Is it read from a SWR meter that comes
AFTER the isolator? This smacks of deliberate misuse of equipment to
leverage an argument. If Cecil thought it strange that Gary should do
so (place the SWR meter after the isolator) he would have challenged
him then for an explanation (there was no challenge). If Cecil
thought that this was an error of Gary's and continued on, he didn't
say so; as such that defense has evaporated. If Cecil thought that
this was an error of Gary's and wanted to draw out the error in terms
of an erroneous result, THAT error has been compounded by Cecil's own
for failure to reveal his agenda.

Frankly, Gary asked good faith questions and Cecil is playing the
thick cowpoke, aw shucks, boot toe scrubbing the dirt stereotype. I
am not impressed that any further dialog will find a legitimate answer
that serves any interest other than this Mutt'n'Jeff routine played
out with a drawl.

I've watched Gary reel out a series of excellent questions that are
finding some painted into a corner. These posted reactions have all
the quality of those so floor limited dancing from one foot to another
hoping that will dry the paint through the illusion of progress.

73's
Richard Clark, KB7QHC

4329. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 17:45:09 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <FE4J9.51791$hK4.4475879@bgtnsc05-news.ops.worldnet.att.net>
Source record: 129568

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:l3j9vusq54epgh6loltrkglcb5nt7e8td0@4ax.com...
> On Mon, 09 Dec 2002 12:57:45 GMT, "VE9SRB" <srbest@att.net> wrote:
>
> >If I e-mail you a superposition diagram would you post it underneath
your's
> >at the same web site, without adding any comments?
>
> Hi Steve,
>
> That is too much to ask and is already dead on arrival as Cecil's site
> already contains editorialization. In the parlance of law, this is
> known as "prior restraint" and is almost always rejected as a request
> of the court.
>
> Just leave Cecil to his unrepentant ways per your earlier threat -
> third party readers have easily enough information by now.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,

Thanks for the interjection of sanity. I know that I need to jump out of this endless loop. Sometimes that's easier said than done - as you are well aware from my previous "this is my last post" statements - its an aspect of my personality that I need to work on. As I mentioned to another NG participant - we are no longer permitted to dual with swords or pistols - the best we have available is the keyboard.

In any event, thanks for the comments. I will be signing off on this conversation.....

Steve VE9SRB

4330. Re: Anyone else using a Cushcraft 148-10S ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 17:51:52 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <7YydncpMJ_sFe2mgXTWcqw@ctc.net>
Source record: 129474

> Just put one up.. works a treat.
> Is the fwd gain correct 13.8db ?
>
It is if you compair it to a rubber duckey on a HT. They almost always
overstate the gain if you compair it to a dipole.

4331. Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 17:56:24 UTC
From: Geoff <swooutdoors@hotmail.com>
Message-ID: <cP4J9.93297$pN3.6599@sccrnsc03>
Source record: 129469
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

"Maurice ON4BAM" <on4bam@yahoo.com> wrote in message
news:k6f7vu0760hq96q642hldsrpkaq19lqdlp@4ax.com...
> On Sun, 08 Dec 2002 21:24:24 GMT, Zoran Brlecic <WA7AA@attbi.com>
> wrote:
>
>
> >Surely the FCC does not interfere with the FAA authority? In other
> >words, it *is* the safety of the plane, for the same reasons that
> >pagers, radios, transceivers, GPS receivers and similar devices are not
> >allowed.
>
> GPS receivers ARE allowed (once the 'seatbelt signs' are off) at many
> if not most airlines.
>
>
> Bye Maurice

GPS receivers only receive signals, they do not transmit them. I have looked and looked over the internet and I still can not find one instance of a cell phone (or similiar device) causing an accident. This leads me to believe that the regulation has less to do with the safety of the plane and more to do with the possible congestion of the cellular networks when people at 30,000 feet are tying up several hundred towers.

4332. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 17:59:05 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <OZydnVrfdKfUdWmgXTWcog@ctc.net>
Source record: 129476

I agree about the gain should be refferanced to a 1/2 wave dipole in free space. Saw where one antenna maker was using an antenna modling program and also calculating the gain with the fround reflection added to it to give more gain..... That was at VHF where yo normally mount the antenna high enough the added gain due to the ground reflection or takeoff angle will have little effect.

Advertised gain numbers have almost no meaning. What is also interisting is how a 5 element antenna on one frequency can have a couple of more or less gain than an antenna of the same number of elements on another frequency , all by the same maker.
Either one is very efficient or the other is very poor !!
"Roger Leone" <arleoneNoSpam@inreach.com> wrote in message news:XB4J9.383$CI3.81066090@news.inreach.com...
>
> > Unity gain compared to a 1/2WL dipole. How about dBi?
>
> > cheers, CAM http://www.qsl.net/w5dxp
>
>
> Cam:
>
> As explained in the very first response to the original post, "gain" depends
> on what you use for a reference of comparison.
>
> Yes, a dipole has gain over an isotropic radiator. To quote from the ARRL
> antenna manual: "An infinitely thin 1/2 wavelength dipole has a theoretical
> gain of 2.14 dB oiver an isotropic radiator (dBi). Thus, the gain of an
> actual antenna over a 1/2 wavelength dipole can be referred to isotropic by
> adding 2.14 dB to the measured gain."
>
> Most of us think of "gain" as "gain over a dipole", since a dipole is a
> basic ham antenna and an isotropic radiator is not. Manufacturers base
> their claims of gain on all kinds of comparisons...it was that ambiguity
> that led the ARRL to ban gain claims from antenna ads in QST many years ago.
> Other publications are not so concerned about truth in advertising an allow
> disreputable manufactures to make all kinds of wild claims of gain.
>
> Roger K6XQ

>
>
>
>
>

4333. Re: who makes the best 6m loop or halo

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 18:00:23 UTC
From: Allodoxaphobia <nobody@jonz.net>
Message-ID: <slrnav9mhm.gsi.nobody@animas.frontier.net>
Source record: 129470

On 09 Dec 2002 01:25:06 GMT, Hawaiisbigsignal hath writ:

> who makes the best 6m loop or halo
> will be mounted indoor attic

I do. HI!HI!
You can, too:
http://jonz.net/W3DHJ/6mhalo.html
73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

4334. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 18:02:20 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <at2lrb$n6n$1@knossos.btinternet.com>
Source record: 129471

> In fact the only
> meter I use while
> "tuning" my HF antennas is the reflected power indicator built into my
> transceiver, which
> I tune for a "dip" so that the transceiver is seeing 50 Ohms.

==========

Reflected power ?

Don't you mean TLI = Transmitter Loading Indicator ?

4335. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 18:02:21 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <at2lrc$n6n$2@knossos.btinternet.com>
Source record: 129472
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

It is the notion of reflected power itself which causes the confusion. Best to erase it from the imagination and return to square one. All can be clarified without resorting to black magic. KISS. There's no point in trying to solve problems which didn't exist before reflected power entered the vocabulary.

Here's another trap to avoid. If the generator impedance is Zg = R+jX and load impedance XL is also R+jX, ie., generator impedance is equal to load impedance, then maximum available power is NOT transferred.

It is essential not to use Z when only R is meant. That bad habit, which almost everybody in ham radio suffers from, causes much confusion, is the hidden root of many arguments and has lost friends.

Reg, G4FGQ

4336. Re: Newbie help on Feelines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 18:08:24 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <p8WcnZ_P5dDId2mgXTWcrg@ctc.net>
Source record: 129478

> Is there a formula or something like that to determine the gamma match
> placement or do you just adjust it for SWR?
>
>
> On Sun, 08 Dec 2002 15:46:11 -0600, John Koch <jakoch@centurytel.net>
> wrote:
>
> >I am familiar with dipole antennas. That is why I was understanding
> >the feedline on this type of antenna... but it is the one peice type
> >that I was not sure about. I have learned alot since posting here
> >already. What are some of the other solutions?
> >

The driven element is not too important to a beam. What is important is that it will have an impedance depending on how it is coupled to the other elements (electrically). You have to have an idea of wht the impedance of the element will be and what the feedline impedance will be before you can calculate anything.
There are many ways to match the antenna driven element to the beam. For some 3 element beans and under, it is possiable to get a low swr by attaching the coax to the split element like a dipole. The patern may be offset to one side if this id done.

4337. Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 18:23:56 UTC
From: Zoran Brlecic <WA7AA@attbi.com>
Message-ID: <3DF4DFB0.2060902@attbi.com>
Source record: 129473
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

Geoff wrote:

>>>Surely the FCC does not interfere with the FAA authority? In other
>>>words, it *is* the safety of the plane, for the same reasons that
>>>pagers, radios, transceivers, GPS receivers and similar devices are not
>>>allowed.
>>
>>GPS receivers ARE allowed (once the 'seatbelt signs' are off) at many
>>if not most airlines.

>
> GPS receivers only receive signals, they do not transmit them.

It doesn't matter. Every receiver has some sort of an oscillator which,
albeit very weak, *could* interfere with the aircraft's sensitive
navigation and control systems. Especially if every passenger fired up
one or more of those.

> I have looked
> and looked over the internet and I still can not find one instance of a cell
> phone (or similiar device) causing an accident. This leads me to believe
> that the regulation has less to do with the safety of the plane and more to
> do with the possible congestion of the cellular networks when people at
> 30,000 feet are tying up several hundred towers.

There really shouldn't be any cellphone caused accidents since by the
time cellphones came about, it was a well established fact that RF was a
potential hazard in the airplane environment. As for the the congestion
thing, the FAA doesn't give a rat's ass about that anymore that they
cared that CB users would be able to contact people across the borders
due to the increased range. RF in any form is simply not allowed in the
planes - transmitters or receivers.

WA7AA

4338. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 18:52:34 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4E672.7090402@ieee.org>
Source record: 129475

Roger Leone wrote:

> W5DXP wrote:
>>Unity gain compared to a 1/2WL dipole. How about dBi?
>
> Yes, a dipole has gain over an isotropic radiator.

Point is, an average 1/4WL vertical doesn't have gain over
an isotropic radiator. Therefore, a vertical dipole has
gain over the average 1/4WL vertical which has a gain of
zero dBi.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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4339. Re: SWR Calculations/In-line Wattmeters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 19:06:10 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <dmo9vu87ifo1nm3mrgmbfjljum9gnhlkhs@4ax.com>
Source record: 129477

On Mon, 9 Dec 2002 11:30:24 -0600, "Richard Fry" <rfry@adams.net>
wrote:

|RE: Pastes below
|
|SWR can be calculated directly from the output values of the forward and
|reflected couplers, using a microprocessor. Some of the fancier Bird meters
|do that, I think.
|
|But no matter how the SWR calculation is determined (directly, or by
|charts), it is limited by the directivity of the forward and reflected
|couplers.

Among other things. Such as the VSWR of the connector on the output of
the instrument + any adapters, etc....

|Therefore this approach produces decreasing accuracy for low SWRs,
|because the output of the reflected coupler contains a progressively higher
|proportion of forward power, which pollutes the true value of the reflected
|sample.

Yep, the better the thing is that you're trying to measure, the harder
it is to do it accurately. But the directivity vector can be
determined if you have a sliding load handy <g>.

|
|The typical in-line wattmeter OEM says to use a 10:1 ratio for the forward
|and reflected slugs. With a full-scale reading from the forward element,
|that 10dB ratio means that the smaller element shows an equivalent SWR of
|~1.93:1 at full scale. Then the calculation is being made with two values
|having 5% accuracy, each, AT BEST -- probably worse, because most often the
|meters do not read full scale in a typical application. That 5% spec also
|depends on a 1:1 load termination, which isn't often the case. So clearly
|the SWR calculations for low values get rather meaningless, and probably not
|worth doing with this approach for anything less than about 1.5:1.
|
|The company from which I retired makes TV/FM/AM broadcast transmitters, and
|we often had cases where a customer would "measure" the output of his new
|transmitter with an in-line wattmeter and see an apparent discrepancy from
|the factory test data. But the transmitter power meter had been set quite
|accurately for that operating power and frequency during final test, using
|an optimized load and calorimeter. The transmitter metering was the more
|accurate of the two, but sometimes that didn't stop the buyer from
|"calibrating" the tx against his Bird meter.

What is an "optimized load", the same one the customer is using?

4340. Re: WIDEBAND MAGNETIC LOOP

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 19:10:12 UTC
From: Dick <boleyd@yahoo.com>
Message-ID: <oU5J9.948$uV4.646971@news2.news.adelphia.net>
Source record: 129479

Sounds like an impossible task unless terrible efficiencies are accepted on
lower frequencies. Be careful!
Dick N3HKN

"Maarten Hagg" <maartenmiriam@hetnet.nl> wrote in message
news:at1okonok1@reader10.wxs.nl...
> LOOK @
> http://home.hetnet.nl/~maartenmiriam/index.html
>
>
>

4341. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 19:10:43 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4EAB3.5010007@ieee.org>
Source record: 129480

Art Unwin KB9MZ wrote:
> Cecil, could you put my
> antenna sayings, claims and what have you and read what Terman said as
> if you were going to follow his sayings with respect to a antenna ?

Art, do you have a web page? I am a visual person and often get absolutely lost in word descriptions including yours. I have little idea what your antenna looks like. If you could post a diagram of your antenna, a picture would be worth a thousand words. Or send me the diagram and I'll be glad to post it.

If I had to guess what your antenna looks like it would be (in fixed font) but not to scale:

```
-------------------------------------------------------------------------
+------------------------+
| |
| |
| |
+-----------FP-----------+
```

> Your writings and experiments show that you are an independent thinker

Art, I am such an independent thinker that I have never, to the best of my memory, cracked open a copy of Terman - not that I haven't tried to find one. The extent of my modest RF library is Johnson, Ramo/Whinnery, Skilling, Balanis, Schaum's Outlines, "Reference Data for Radio Engineers", and ARRL/ham publications.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4342. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 19:11:59 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4EAFF.2010504@ieee.org>
Source record: 129481

Richard Clark wrote:
> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>
>>true steady-state doesn't
>>exist for AC since the voltage and current are continuously changing.
>
> Hi Cecil,
> This remark ranks you as an amateur for sure.

Gee thanks, Richard.
--
cheers, CAM http://www.qsl.net/w5dxp

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4343. Re: WIDEBAND MAGNETIC LOOP

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 19:13:31 UTC
From: fractenna@aol.com
Message-ID: <20021209141331.21179.00000091@mb-cu.aol.com>
Source record: 129482

>Sounds like an impossible task unless terrible efficiencies are accepted on
>lower frequencies. Be careful!
>Dick N3HKN
>

I believe he means 'wide range, tunable'.

73,
Chip N1IR

4344. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 19:19:31 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4ECC3.2090205@ieee.org>
Source record: 129483

Peter O. Brackett wrote:
> Cecil:
>>I don't know of any RF engineers who haven't, in one way or another, been
>>seduced by the steady-state model. In reality, true steady-state doesn't
>>exist for AC since the voltage and current are continuously changing. RMS
>>values are averages invented by the human mind to make things easier for
>> us.

> OK, OK... but... I'm just a simple DC engineer and I admit I was once
> seduced by a steady-state model.
>
> I had a run in with Jim Beam and Jack Daniels and I couldn't resist leaning
> on her lovely steady shoulders.
>
> She was kinda shy and had one bad eye... but her VSWR was a perfect 1.0 even
> though she was mis-matched
> and had increased losses in her transmission media under the mis-match!

:-) The other day someone posted a wench for sale over on rec.radio.swap.
I asked what was her name, what did she look like, and how old was she.

Peter, you ask what is the difference between DC and AC. The difference
is infinite. The first derivative of DC is zero. The first derivative of
an AC sine wave of any frequency is a cosine wave of the same frequency.
--
cheers, CAM http://www.qsl.net/w5dxp

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4345. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 19:22:06 UTC
From: Roger Leone <arleoneNoSpam@inreach.com>
Message-ID: <1Y6J9.389$w74.82823274@news.inreach.com>
Source record: 129484

> Point is, an average 1/4WL vertical doesn't have gain over
> an isotropic radiator....

> cheers, CAM http://www.qsl.net/w5dxp

I haven't seen this in the literature before...can you furnish a reference?

Roger

4346. Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 19:57:55 UTC
From: fpkearn_twelve@rondomondo.eircom.tv.ie.au
Message-ID: <3df4f3a0.1247471@news.eircom.net>
Source record: 129485
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

"Geoff" <swooutdoors@hotmail.com> wrote:

> GPS receivers only receive signals, they do not transmit them. I have looked
> and looked over the internet and I still can not find one instance of a cell
> phone (or similiar device) causing an accident. This leads me to believe
> that the regulation has less to do with the safety of the plane and more to
> do with the possible congestion of the cellular networks when people at
> 30,000 feet are tying up several hundred towers.

it is my opinion that there are plenty of reports floating around of both
proven and suspected interference with aircraft systems which show up for
a few seconds and once corrected/eliminated by the crew (cabin or cockpit)
do not occur.

yes, the cell-companies dont like having lots of their ground stations
reporting what the signal strength of a phone at 35000feet is as the whole
width of florida can in theory be covered at only 10,000feet.
(see people taking calulators out now... 1.23 square root....)

can you imagine what it would be like to have 1000 phones active and being
traced by huge chunks of the network ?
now multiply again by another 400 and you get a rough and probably
slightly high approx of how many phones *could* be in air at 1600hrs
Colorado time. thats alot of tracking to be done and in one country.

airlines will always put the safety of their passengers ahead of any
cellular phone network. if they dont - accidents happen.

4347. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 20:07:36 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF4F808.5030309@ieee.org>
Source record: 129486

Gene Fuller wrote:
> OC_CAM's Razor wrote:
>>You could be an exception, but virtually all RF engineers I
>>know, at one time or another, engage in petitio principii, i.e.
>>they know the answer so they assume the proof.
>>--
> Sounds a lot like invoking constructive and destructive interference to
> make an energy equation balance.
>
> Since neither of these components is observable in the system under
> debate, it would appear that you have been hoist with your own petard.

The constructive and destructive interference components are predicted
by the superposition principle. I guess you either accept the superposition
principle or not. Steve throws away half of the energy components predicted
by the superposition principle so he obviously doesn't accept it.

> By not observable I mean more than simply not measurable due to
> inadequate instrumentation. It is not possible to measure the
> interferences you rely upon without perturbing the system under
> examination. This is a classic problem throughout science and
> engineering.

It's not quantum physics, Gene. There is so much energy, we can tap
off a mite without changing things very much.

> There are many examples (perhaps an infinite number) in science where
> alternate analytical approaches will yield the same physical
> conclusions. Short of philosophical discussions there is little to
> support the "best" choice of one approach over the other.

If you have your choice between two explanations, one violates the
conservation of energy principle and one doesn't, which would you choose?
My argument and Steve's argument yield the same measurements but do not
yield the same physical conclusions.

> Steve chooses to use vector addition of voltages and currents; you
> choose to use conservation of energy. Steve does not worry explicitly
> about the balance of energy; you choose to create an artifice to allow
> you to not worry explicitly about the addition of voltages and currents.

That's an absolutely false statement, Gene. I use both vector addition of
voltages and currents *and* the conservation of energy principle. My vector
voltage equations add up. My vector current equations add up. My scalar energy
equation balances. Steve's vector voltage equations add up even though he omits
two of the values. Steve's vector current equations add up even though he omits

two of the values. Steve's energy equation doesn't balance because he omits two of the values. So which explanation is the best?

Referencing Steve's Fig 1, redrawn on my web page at:

http://www.qsl.net/w5dxp/sbfig1.gif

The superposition principle predicts the following:

Pfwd1 = 100W = Pfwd1(1-Rho^2) + Pfwd1(Rho^2) = 75W + 25W = P1 + P3

Pref2 = 33.33W = Pref2(Rho^2) + Pref2(1-Rho^2) = 8.33W + 25W = P2 + P4

P1 = 75W and P2 = 8.33W are the same as Steve's P1 and P2

P3 = 25W and P4 = 25W are the powers involved in the interference pattern which Steve labels, "rearward traveling waves 1 and 2".

Reference Dr. Best's Magic Energy Machine at http://www.qsl.net/w5dxp/magic.gif

The voltages and currents associated with the four energy components predicted by the superposition principle are:

P1 = 75W = 61.24V at zero degrees and 1.225A at zero degrees
P2 = 8.33W = 20.41V at zero degrees and 0.408A at zero degrees
P3 = 25W = 35.355V at zero degrees and 0.707A at 180 degrees
P4 = 25W = 35.355V at 180 degrees and 0.707A at 180 degrees

Steve agrees with the above four energy components. Why does he choose to omit two of the components from his voltage, current, and energy equations?

The actual voltage equation is:
Vtot = 61.24V at 0 deg + 20.41V at 0 deg + 35.355V at 0 deg + 35.355V at 180 deg
Vtot = 81.65V (Steve and I agree on this value)

The actual current equation is:
Itot = 1.225A at 0 deg + 0.408A at 0 deg + 0.707A at 180 deg + 0.707A at 0 deg
Itot = 1.63A (Steve and I agree on this value)

The actual energy equations are:
Ptot = 61.24V^2/50 + 20.41V^2/50 + 35.355V^2/50 + (-35.355V)^2/50
Ptot = P1 + P2 + P3 + P4 = 75W + 8.33W + 25W + 25W = 133.33W

Ptot = 1.225A^2*50 + 0.408A^2*50 + (-0.707A)^2*50 + 0.707A^2*50
Ptot = P1 + P2 + P3 + P4 = 75W + 8.33W + 25W + 25W = 133.33W

P3 and P4 are the energy components involved in the wave interference that are completely ignored by Dr. Best. He calls them "rearward traveling waves 1 and 2" and says that they cancel. Can the energy in those waves cancel? Of course not! That's the 50 joules/sec that Steve is missing in his energy equation. So why does Steve choose to ignore the other two energy components predicted by the superposition principle?

P3 = 25W = 35.355V at 0 deg and 0.707A at 180 degrees
P4 = 25W = 35.355V at 180 deg and 0.707A at 0 degrees

Note that P3 and P4 each have their voltages 180 degrees out of phase.
That makes them REFLECTED POWERS. When this energy is canceled in the
direction of the source by destructive interference, the result is a
constructive interference wave of RE_REFLECTED POWER in the direction
of the load. Now we see the reason why Steve needs to ignore and hide
this re-reflected energy. If he admits that the missing energy is indeed
re-reflected energy, about a dozen of his article statements are rendered
false. In fact, P1=75W is the only power in the system that is not re-
reflected.
--
cheers, CAM http://www.qsl.net/w5dxp

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4348. Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 20:12:37 UTC
From: fpkearn_twelve@rondomondo.eircom.tv.ie.au
Message-ID: <3df4f882.2498151@news.eircom.net>
Source record: 129487
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

Zoran Brlecic <WA7AA@attbi.com> wrote:

> > GPS receivers only receive signals, they do not transmit them.
>
> It doesn't matter. Every receiver has some sort of an oscillator which,
> albeit very weak, *could* interfere with the aircraft's sensitive
> navigation and control systems. Especially if every passenger fired up
> one or more of those.

<flames off>
<respect on>

given that most local-oscillators are (whats the term)
high-side-injection (or something like that) and given that the vhf nav band is right above the vhf broadcast band, there is a high probability that an ordinary radio could be tuned to a frequency that is X MHz (e.g. 10.7) away from a valid vhf navigation frequency.

e.g. listen to KXYZ on 101.6 => 100.6 + 10.7 = 111.3
(assumption: KXYZ is on 100.6 and is a valid fm broadcast freq)

111.3 happens to be a valid ILS frequency and IF (big IF) its the active one for a particular airport then you might have problems landing because someone has a radio on in the cabin.

i have personal experience of a personal-stereo-radio that could blot out other broadcast stations by using its local-osc.

and remember it doesnt need to blot out the frequency, just cause enough inteference for the airborne radio to reject the detected info off the radio signal.

nowadays, vhf nav radios must be 'fm broadcast interference suppressed' capable as per some directive that came out about 3 years ago.

when in an aircraft - safety comes first. (even on the ground)

4349. Re: Anyone else using a Cushcraft 148-10S ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 20:22:40 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <I_ScnRoZ5u2UZmmgXTWcog@comcast.com>
Source record: 129488

Doz,

I have one of these, and had entered the data for it into EZNEC. That gives
a gain of 12.57dbi in free space.
Tam/WB2TT
"Doz" <doz@postmaster.com> wrote in message
news:3df4a733$0$4780$fa0fcedb@lovejoy.zen.co.uk...
> Just put one up.. works a treat.
> Is the fwd gain correct 13.8db ?
>
> Regards,
> Doz
>
>

4350. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 20:53:32 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <at2vs2$hu0$1@slb4.atl.mindspring.net>
Source record: 129489

Reg:

[snip]
> ==========
>
> Reflected power ?
>
> Don't you mean TLI = Transmitter Loading Indicator ?
[snip]

Yes, that's exactly what I meant Reg, *Transmitter Loading Indicator*.

My current HF rig is a Yaesu FT-1000D and the label on the meter face
for that function actually reads "SWR".

Wrong!

Go figure!

--
Peter K1PO
Indialantic By-the-Sea, FL

4351. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 20:59:03 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF50417.2070502@ieee.org>
Source record: 129490

VE9SRB wrote:

> "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
> Well, your drawing did not accurately reproduce my concepts. The drawing
> has nothing to do with my concepts, so there is no point in trying to
> correct it.

Translation: That picture is worth a thousand words and shows exactly
what is wrong with Dr. Best's concepts. Dr. Best cannot re-draw it
without admitting that he choose to ignore half of the energy components
predicted by the superposition principle.

> We disagree on the principles of superposition, specifically, the vector
> addition of voltage and current.

Nope, we do not, Steve! That's just one of your strawmen. We agree perfectly
on the results of the vector addition of voltage and current.

Your voltage equation:
Vtot = 61.24V at 0 deg + 20.41V at 0 deg = 81.65V at 0 deg

My voltage equation:
Vtot = 61.24V at 0 deg + 20.41V at 0 deg + 35.355V at 0 deg + 35.355V at 180 deg
Vtot = 81.65V at 0 deg

Our results are *identical*, Steve. Where do we disagree on the vector
addition of voltage? The question is: Why did you choose to leave out
half of the voltage components predicted by the superposition principle?

> Superposition requires that multiple voltages and currents applied to a
> single impedance add as vectors. I.e. two vector voltages, V1 and V2,
> applied in series to an impedance (like two forward voltages in Zo), add as
> Vtotal = V1 + V2. You have stated that you disagree with the vector
> addition of voltage.

I have NOT stated that I disagree with the vector addition of voltage nor
have I any disagreement with you on the vector addition of voltage. I have
stated that multiple times. You seem to have the desperate need to spread
such falsehoods. One wonders why? See above. Our results are *identical*!
Where I disagree with you is on your superposition of energy to obtain more
than the sum of the energy components.

> All that happens in transmission line as the system transitions to the
> steady state is following: In the forward direction, the total forward
> voltage increases through the vector addition of the multiple forward
> voltages (Vtotal = V1 + V2 + V3 + ...). As the total forward voltage
> increases, the total forward power increases as a function of the square of

> the magnitude of the total forward voltage.

Yes, that's exactly what happens so why did you leave out V3 + V4 in your voltage equation and V3^2/Z0 + V4^2/Z0 in your energy equation? - you know, the two voltage terms that when squared, are exactly proportional to your missing energy in the system? The forward power increase is constructive interference, i.e. RE-REFLECTED energy.

> In the rearward direction, the
> total rearward voltage decreases through the vector addition of the multiple
> rearward voltages (Vtotal = V1 + V2 + V3 + ..). As the total rearward
> voltage decreases, the total rearward power decreases as a function of the
> square of the magnitude of the total rearward voltage.

Yep, and that power decrease is called destructive interference of REFLECTED waves. It results in constructive interference in the other direction. That, my friend, is RE-REFLECTION in action! In fact, P1=75W is the only energy in your example that is not re-reflected energy. P2+P3+P4 = 58.33W is RE-REFLECTED energy. P2, P3, and P4 were all once moving toward the source. They wind up moving toward the load. That's nothing except re-reflection.

> At this point, I think that you are unnecessarily trying to account for
> "extra power" based on a fundamental misunderstanding of the superposition
> process.

Of course you must say that because if the "extra power" were accounted for, everyone would understand that it is actually RE-REFLECTED power and a dozen of your article statements would be wrong.

> The forward voltage increases, the forward power increases
> appropriately. The rearward voltage decreases, the rearward power decreases
> appropriately. At no time is the law of conservation of power violated in
> this process.

It is violated by your equation 75W + 8.33W = 133.33W. You state that you are adding two and only two voltages. The energy associated with each voltage is V^2/Z0. If you try to get more than the associated energy out of those two and only two waves, you are mentally violating the conservation of energy principle. Why didn't you include all the terms predicted by the superposition principle? Why did you choose to leave out half of them?
--
cheers, CAM http://www.qsl.net/w5dxp

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4352. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 21:05:35 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF5059F.4040503@ieee.org>
Source record: 129491

Richard Clark wrote:
> If Cecil thought that
> this was an error of Gary's and wanted to draw out the error in terms
> of an erroneous result, THAT error has been compounded by Cecil's own
> for failure to reveal his agenda.
>
> Frankly, Gary asked good faith questions and Cecil is playing the
> thick cowpoke, aw shucks, boot toe scrubbing the dirt stereotype.

I must have missed something, Richard. I haven't said anything to Gary
that deserves an ad hominem attack. Exactly what is it that I have
said that was wrong?
--
cheers, CAM http://www.qsl.net/w5dxp

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4353. Re: SWR Calculations/In-line Wattmeters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 21:09:59 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <uE7J9.31231$5P3.2215088@newsfeed.slurp.net>
Source record: 129492

A high-power dummy load that has been trimmed/matched to a very low input VSWR for the frequency, as determined by accurate test equipment and methods.

"Wes Stewart" n7ws@#arrl.net wrote
>
> What is an "optimized load"....?
>

4354. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 21:12:50 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF50752.9030806@ieee.org>
Source record: 129493

Roger Leone wrote:
>>Point is, an average 1/4WL vertical doesn't have gain over
>>an isotropic radiator....
>
> I haven't seen this in the literature before...can you furnish a reference?

EZNEC, VERT1.EZ
--
cheers, CAM http://www.qsl.net/w5dxp

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4355. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 21:14:20 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <at3132$b2r$1@slb9.atl.mindspring.net>
Source record: 129494
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Roy:

[snip]
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:uv9kfecoep254d@corp.supernews.com...
> If you fix the load resistance at 50 ohms and vary the source
> resistance, zero ohms provides both the best efficiency (100%) and the
> maximum power dissipation in the load.
>
> If the load is complex, Rl + jXl, the maximum load power will occur with
> a source impedance of 0 - jXl. Maximum efficiency (100%) will occur with
> a source resistance of zero, with any reactance.
>
> Roy Lewallen, W7EL
[snip]

Well... ahem, not exactly. I know it's not applicable to the typical
amateur radio HF transmitter,
but...

For the resistive case, reducing the source resistance to zero only
maximizes the load dissipation
when the source resistance is limited to positive values. In fact, the
maximum power dissipation
in the 50 Ohm load will be infinite and would occur when the variable source
resistance is adjusted
to be -50 Ohms [negative 50 Ohms], and in practice, this is just before "the
melt-down".

That said, there are indeed examples of real practical systems where
negative values of source
resistance are used and in these cases such use further increases power
transfer.

--
Peter K1PO
Indialantic By-the-Sea, FL

4356. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 21:16:47 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF5083F.4010401@ieee.org>
Source record: 129495

OC_CAM's Razor wrote:
> P1 = 75W = 61.24V at zero degrees and 1.225A at zero degrees
> P2 = 8.33W = 20.41V at zero degrees and 0.408A at zero degrees
> P3 = 25W = 35.355V at zero degrees and 0.707A at 180 degrees
> P4 = 25W = 35.355V at 180 degrees and 0.707A at 180 degrees

Sorry, the last line should read:
P4 = 25W = 35.355V at 180 degrees and 0.707A at zero degrees.
--
cheers, CAM http://www.qsl.net/w5dxp

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4357. Re: Newbie help on Feelines

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 21:35:33 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Q9Wdnf2ZycmAkWigXTWcpg@comcast.com>
Source record: 129496

John,

The antennas with the split driven element generally use either a hairpin match and a 1:1 balun, or a beta match and a 4:1 balun. The latter is a lot easier, because it just consists of a 1/4 wavelength of coax. The one where the middle of the driven element is connected to the boom uses the gamma match, which is easier to homebrew, although I think a commercial beta match is more rugged. The gamma match uses a series capacitor, which is usually made up of a piece of insulated wire (coax with the shield stripped off) that slides inside the gamma rod. Other than the books, if at all possible look at a Cushcraft VHF beam.

Tam/WB2TT
"John Koch" <jakoch@centurytel.net> wrote in message
news:a597vucrd1m6h6bb7r4g2odh801rqsmiko@4ax.com...
> I have just got into making antennas. I have made a couple for 2
> meters. They work ok but my question is one I can not find on the
> internet. I am making some yagi beams and I am confused about the
> driven element. Some have the driven in two parts and therefor the
> feed line is one each of the elements... some have the driven in one
> peice centered on the boom. These antennas say nothing about where or
> how to connect the feed line. Can someone shed some light on this
> subject. I have been just cutting the driven in the middle on all my
> projects. Is this what I should be doing?
>
> BTW, I am getting the ARRL book but thougt I would try to get this
> question answered first.
>
> Thanks
> N5RVN

4358. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 21:52:07 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212091352.5b679229@posting.google.com>
Source record: 129497

"Roger Leone" <arleoneNoSpam@inreach.com> wrote in message
news:<EK2J9.382$Fk3.79500404@news.inreach.com>...
> "> since it is more like a J-pole wouldnt it have about 3db of gain?
>
>
>
> Dennis:
>
> A J-pole is a vertical 1/2 wave radiator, so it is also a unity gain
> antenna.
>
> Roger K6XQ

I thought "unity gain" was a comparison to a 1/4 wave ground plane,
when comparing elevated verticals, or a 1/4 wave whip on mobile
mounts..? But no real matter...The difference is only about a third of
a db or so for the elevated antennas. MK

4359. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 22:00:27 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3df5176b_4@news1.prserv.net>
Source record: 129498

"Fractenna" <fractenna@aol.com> wrote in message
news:20021208085151.27641.00010911@mb-mf.aol.com...
> Someone commented about an LP being fed from the back (longest part) .
That
> would be fascinating to see. Any references? Or is there just confusion on
> where the coax is exited versus where it is fed?
>
> 73,
> Chip N1IR

Oh, I'd rather see a NEC analysis of one fed in the middle somewhere.

--
Crazy George
Remove NO and SPAM from return address

4360. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 22:13:33 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ae4avucd1ta5to1lt7f37spivc60i2cca8@4ax.com>
Source record: 129499

On Mon, 09 Dec 2002 15:05:35 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Richard Clark wrote:
>> If Cecil thought that
>> this was an error of Gary's and wanted to draw out the error in terms
>> of an erroneous result, THAT error has been compounded by Cecil's own
>> for failure to reveal his agenda.
>>
>> Frankly, Gary asked good faith questions and Cecil is playing the
>> thick cowpoke, aw shucks, boot toe scrubbing the dirt stereotype.
>
>I must have missed something, Richard. I haven't said anything to Gary
>that deserves an ad hominem attack. Exactly what is it that I have
>said that was wrong?

Hi Cecil,

You had a technical question to respond to, and you had a
characterization to respond to (and only after the repetition of the
technical question). Failing answering the technical question twice,
you choose here to fulfill the stereotype. Being wrong is not simply
an issue of mis-statement. Further, it was failure I addressed, not
right or wrong. The failure, through your choice alone, persists.
Resolve that technical question and the characterization disappears
and you are vindicated. You can then remonstrate me for ad hominem
and satisfy honor. Ignore the failure, and the characterization
persists instead.

Do I need to repeat the query a third time? That would obviously
cement the characterization... especially if it goes unresponded to.
It's still your choice which path to follow.

73's
Richard Clark, KB7QHC

4361. Re: SWR Calculations/In-line Wattmeters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 22:23:50 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <sk5avu8ueer3kppb24vk4t1l7nd1cnchki@4ax.com>
Source record: 129500

On Mon, 09 Dec 2002 12:06:10 -0700, Wes Stewart <n7ws@#arrl.net>
wrote:

>
>Yep, the better the thing is that you're trying to measure, the harder
>it is to do it accurately. But the directivity vector can be
>determined if you have a sliding load handy <g>.
>

Hi Wes,

You probably lost a lot of readers on the last turn with that one. We are probably the only two (maybe a third, but he hasn't chimed in) in this group to have performed these techniques - for years.

There is no better schooling in this topic than having the scale of SHF to directly observe the entire scope of these effects at the bench. For those stuck below 1 GHz, I am sure they relate to it as the mysteries of belief and ignore it as religion.

73's
Richard Clark, KB7QHC

4362. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 22:29:38 UTC
From: Gene Fuller <W4SZzzzzz@att.net>
Message-ID: <3DF51979.703AC757@att.net>
Source record: 129501

Cecil,

It is not necessary to keep dredging up all of the detailed equations. We have all seen them ad nauseam. Your math is impeccable.

However, you are clearly missing the point or ignoring the point.

There is NOTHING OBSERVABLE that can distinguish between your model and Steve's model. You may choose to invoke interference if you wish, but that is simply an internal calculational detail.

By the way, there is no direct connection between superposition and interference. Non-linear systems can exhibit interference as well, even though they may not obey superposition.

For the uninitiated, the principle of superposition says:

If:
a system input of x1(t) produces an output of y1(t), and
a system input of x2(t) produces an output of y2(t)
Then:
An input of x1(t) + x2(t) must produce an output of y1(t) + y2(t).

If this does not occur then superposition does not apply for that system. No more and no less.

Can you find even one case in which Steve's calculation produces an incorrect physical result? You can change the load, Z0, line length, or any other parameter to your heart's content. The only thing you cannot do is add circulators, Maxwell demons, or any other schematic change.

This debate arises anew every couple of months, and the reason is simple. Both methods give the correct physical results. The rest is merely philosophy.

You may wish to simultaneously add and subtract some ficticious waves inside your model to make yourself happy, but Mother Nature doesn't care.

73,
Gene Fuller

OC_CAM's Razor wrote:
>
> Gene Fuller wrote:
> > OC_CAM's Razor wrote:
> >>You could be an exception, but virtually all RF engineers I
> >>know, at one time or another, engage in petitio principii, i.e.

> >>they know the answer so they assume the proof.
> >>--
> > Sounds a lot like invoking constructive and destructive interference to
> > make an energy equation balance.
> >
> > Since neither of these components is observable in the system under
> > debate, it would appear that you have been hoist with your own petard.
>
> The constructive and destructive interference components are predicted
> by the superposition principle. I guess you either accept the superposition
> principle or not. Steve throws away half of the energy components predicted
> by the superposition principle so he obviously doesn't accept it.
>
> > By not observable I mean more than simply not measurable due to
> > inadequate instrumentation. It is not possible to measure the
> > interferences you rely upon without perturbing the system under
> > examination. This is a classic problem throughout science and
> > engineering.
>
> It's not quantum physics, Gene. There is so much energy, we can tap
> off a mite without changing things very much.
>
> > There are many examples (perhaps an infinite number) in science where
> > alternate analytical approaches will yield the same physical
> > conclusions. Short of philosophical discussions there is little to
> > support the "best" choice of one approach over the other.
>
> If you have your choice between two explanations, one violates the
> conservation of energy principle and one doesn't, which would you choose?
> My argument and Steve's argument yield the same measurements but do not
> yield the same physical conclusions.
>
> > Steve chooses to use vector addition of voltages and currents; you
> > choose to use conservation of energy. Steve does not worry explicitly
> > about the balance of energy; you choose to create an artifice to allow
> > you to not worry explicitly about the addition of voltages and currents.
>
> That's an absolutely false statement, Gene. I use both vector addition of
> voltages and currents *and* the conservation of energy principle. My vector
> voltage equations add up. My vector current equations add up. My scalar energy
> equation balances. Steve's vector voltage equations add up even though he omits
> two of the values. Steve's vector current equations add up even though he omits
> two of the values. Steve's energy equation doesn't balance because he omits
> two of the values. So which explanation is the best?

[big snip]

4363. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 22:47:03 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF51D67.40308@ieee.org>
Source record: 129503

Richard Clark wrote:
> Failing answering the technical question twice,
> you choose here to fulfill the stereotype.

I am not aware that I failed to answer the technical question, Richard.
Could be I missed something and didn't recognize the question. What was
the technical question?
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4364. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 23:19:19 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF524F7.8000403@ieee.org>
Source record: 129504

Gene Fuller wrote:
> There is NOTHING OBSERVABLE that can distinguish between your model and
> Steve's model.

If that's true, how can Steve's statement that reflected power is not 100% re-reflected in a matched system, possibly be proven to be true? There is NOTHING OBSERVABLE that will make Steve's assertions true!!!

> By the way, there is no direct connection between superposition and
> interference. Non-linear systems can exhibit interference as well, even
> though they may not obey superposition.

Are you saying linear systems cannot exhibit interference? If not, your statement is irrelevant to this discussion.

> Can you find even one case in which Steve's calculation produces an
> incorrect physical result?

For the umpteenth time, the physical results are known so Steve wouldn't dare violate them. It is Steve's conceptual statements based on those physical results that are in question. For instance, in a lossless matched system, the only energy input into the system is from the source. ZERO reflected energy winds up reaching the source. All of the energy in the entire system winds up flowing toward the load. Therefore, all of the reflected energy in the entire system winds up flowing toward the load because none is flowing toward the source, i.e. all of the reflected energy in the entire system is re-reflected. This is such a simple concept that anything other than the above statement is simply a hoax perpetuated upon amateur radio. Steve dumps reflected power into a magician's hat and tells us that it has disappeared. He then taps three times with his magic wand and pours out 2 Sqrt(P1) Sqrt(P2) which coincidentally exactly equals the reflected power that he put into the hat in the first place. Then he tells us that it is not reflected power at all. He has not proven that statement to be true. Using his own model, I have proved that statement to be false.

> This debate arises anew every couple of months, and the reason is
> simple. Both methods give the correct physical results. The rest is
> merely philosophy.

Do you agree that every joule/sec of reflected energy winds up flowing toward the load? If not, where does it go? It doesn't reach the source, it cannot disappear, and it cannot stand still. If every joule/sec of reflected energy winds up flowing toward the load, a good dozen of Steve's statements are false. If every joule/sec of reflected energy doesn't wind up flowing toward the load, where does it go?

So here's a quiz for you: In a matched system where no reflected energy
reaches the load, the reflected energy:
1. Disappears from the system
2. Stands still
3. Flows toward the load (which Steve denies)

I can't think of any other possibility and the first two possibilities
are not valid. If the correct answer is '3', all the reflected energy
is re-reflected, by definition.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4365. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 23:22:58 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF525D2.7020000@ieee.org>
Source record: 129505

Larry Phipps wrote:
> Amazingly, I found a copy of Terman's Radio Engineering and also a copy of
> Antennas by Kraus at a small used book store in a college town near me a
> number of years ago. I think I paid a couple bucks for the pair.

Heck, I'll pay you double what you paid for them. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4366. Re: Characterizing a commercial trap

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 23:31:18 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <at3945$4$1@knossos.btinternet.com>
Source record: 129506

Tam wrote -
> "Roy Lewallen" wrote -
> > What's an easy way to measure trap loss?
>
> As a two port device, input to output. He didn't say it was an antenna
trap,
> which didn't occur to me until now. Still, I see no reason to measure
> current.

==========

Tam, you are quite correct. No need to measure RF current.

Knowing the trap inductance and frequency, with an estimate of coil Q it is ncessary only to measure RF volts to calculate watts dissipated in the coil.

But as we are interested ultimately only in the temperature rise above ambient, that can be measured directly with some sort of thermometer.

If you havn't a suitable sort of thermometer, temperature rise can be obtained from the increase in DC resistance of the copper wire in the coil itself. The temperature coefficient of resistance of copper (if I remember correctly) is +0.4 percent per degree Celsius.

Measurents of volts applied across the coil and its DC resistance can be made simultaneously, as indeed they should be. S'easy ! Been there, done that sort of thing - 45 years back ! Kelvin was doing it around 1850. That's why he invented his renouned bridge. When pushing back the frontiers of science, necessity is the mother of invention !

Trap manufacturers, of course, if they do anything at all, quite sensibly just do what hams do and apply a hands-on heat-test.

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

4367. Re: SWR Calculations/In-line Wattmeters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 23:41:44 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <qgaavu426koppurt4io8vrdn1ttur1dfm5@4ax.com>
Source record: 129507

On Mon, 9 Dec 2002 15:09:59 -0600, "Richard Fry" <rfry@adams.net>
wrote:

|A high-power dummy load that has been trimmed/matched to a very low input
|VSWR for the frequency, as determined by accurate test equipment and
|methods.

Aha. So when the customer connects the transmitter to *his* load he
might well (more than likely) get different results. His Bird might
not be fibbing after all <g>.
|___________________
|
|"Wes Stewart" n7ws@#arrl.net wrote
|>
|> What is an "optimized load"....?
|>
|

4368. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 23:42:14 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <qT9J9.7144$4j5.3547455@newssvr28.news.prodigy.com>
Source record: 129502

Amazingly, I found a copy of Terman's Radio Engineering and also a copy of Antennas by Kraus at a small used book store in a college town near me a number of years ago. I think I paid a couple bucks for the pair.

Other good authors to look for are G.H. Brown or Jasik.
--
73,
Larry N8LP
www.telepostinc.com/n8lp.html

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message news:3DF4EAB3.5010007@ieee.org...

>
> Art, I am such an independent thinker that I have never, to the best
> of my memory, cracked open a copy of Terman - not that I haven't tried
> to find one. The extent of my modest RF library is Johnson, Ramo/Whinnery,
> Skilling, Balanis, Schaum's Outlines, "Reference Data for Radio Engineers",
> and ARRL/ham publications.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>

4369. Re: SWR Calculations/In-line Wattmeters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-09 23:59:52 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <6taavu05ad6sp78r31ctduhssqfl5retmo@4ax.com>
Source record: 129508

On Mon, 09 Dec 2002 22:23:50 GMT, Richard Clark <kb7qhc@attbi.com>
wrote:

|On Mon, 09 Dec 2002 12:06:10 -0700, Wes Stewart <n7ws@#arrl.net>
|wrote:
|
|>
|>Yep, the better the thing is that you're trying to measure, the harder
|>it is to do it accurately. But the directivity vector can be
|>determined if you have a sliding load handy <g>.
|>
|
|Hi Wes,
|
|You probably lost a lot of readers on the last turn with that one. We
|are probably the only two (maybe a third, but he hasn't chimed in) in
|this group to have performed these techniques - for years.
|
|There is no better schooling in this topic than having the scale of
|SHF to directly observe the entire scope of these effects at the
|bench. For those stuck below 1 GHz, I am sure they relate to it as
|the mysteries of belief and ignore it as religion.

Hi Richard,

Yes one hasn't lived unless he's "calibrated" out the directivity
error on an HP8410 polar display by sliding a load and tweaking the
CRT X-Y position controls to center the circle on the screen.

In more recent times, a high grade cal on even an HP8510 called for a
coax sliding load. Five to eight sweeps at different positions and
the internal math calculated the center of the circle for you.

I'm out of the field now, but I believe the current trend is to
"electronic" standards that replace the open-short-load-thru, or
thru-reflection-line (TRL) fixed standards for routine calibration.

Regards,

Wes

4370. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 00:05:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvabu2i7ei414@corp.supernews.com>
Source record: 129509

For used books at reasonable prices (but not a couple of bucks), try http://www.powellsbooks.com. That's where I've gotten most of the books in my library.

Roy Lewallen, W7EL

OC_CAM's Razor wrote:
> Larry Phipps wrote:
>
>> Amazingly, I found a copy of Terman's Radio Engineering and also a
>> copy of
>> Antennas by Kraus at a small used book store in a college town near me a
>> number of years ago. I think I paid a couple bucks for the pair.
>
>
> Heck, I'll pay you double what you paid for them. :-)

4371. Need advice for 433.92 reception antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 00:19:37 UTC
From: kmic5@hotmail.com
Message-ID: <da7d3410.0212091619.3827c0b@posting.google.com>
Source record: 129510

I am looking for an omni-directional antenna for a receiver that picks up 433.92mhz transmission from miniature security tags. The tags are constantly moving (mostly installed in vehicles for automatic gate entry) and need to be picked up effeciently and quickly. The power output for the tags is listed as: -14 dBm, 72 db ï¿½V, 4300 ï¿½V/m, 38ï¿½W. The receiver has a female BNC antenna connection.

The tags should be receptive to over 115ft but no matter where we locate the receiver, the max is less than 30ft.

Any recommendations for manufacturers or types of antennas that might be suitable for my application is appreciated.

4372. Re: What kind of antenna grease/lubricant for antenna assembly

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 00:44:55 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <uvae6pamngejc9@corp.supernews.com>
Source record: 129512

Another advantage of Penetrox-A is its anti-seize properties. When
using SS screws, or the like, its use is mandatory or things will break.
73 Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net
"Crazy George" <munschNO@attglobal.net.SPAM> wrote in message
news:3ce329eb_4@news1.prserv.net...
> I prefer Burndy Corp. Penetrox - A. The -A is for aluminum to
aluminum.
> Other suffix letters are for other metals. Actually, if you can find
a
> power line crew installing aluminum conductors, you can scrounge some
of
> this or an equivalent product they use inside their compression
connectors.
>
> --
> Crazy George

4373. Oh Calamity ! SOS !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 00:45:29 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <at3df9$ko3$1@helle.btinternet.com>
Source record: 129513

Here in the civilised UK I am not bothered with rattlers, skunks or mountain lions and do not have a gun licence.

But a domestic (jumping) wolf spider, about 3/8" across, before I could find something to swot him with, has just disappeared into a ventilation hole on my 14" video monitor.

It's taken my mind right off reflected power.

I've done an unsuccessful Google.

What's the breakdown volts of a dry, 3/8", electrocuted, wolf spider?

4374. Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 00:50:46 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <uvaehos6h9cabc@corp.supernews.com>
Source record: 129514

Wow! The Clegg FM27B has the distinction of emitting the most spurs of any radio I have ever tested. It attempted to use several mixers to produce the final output. Far too little filtering. The 27B is an ideal test source (in a shielded room) for EMC. [Fellow two miles from me had one. Every time he transmitted, about half of the repeaters, including commercial, would key.]

Love your story. 73 Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

> Heh....not likely. YEARS ago, we checked gas pump electronics in a
> chamber....I volunteered the old Clegg FM27B I had as a 144 mhz source. 600 mW
> is not likely to cause anything except inattention at the pump. Legal
> liability only....i.e., "it is electronic and may cause a spark, so we need a
> warning sign." I'm more worried about causing a spark via static electricity
> than by cell phone.
>
> A
> (who helped design and sell the darn things years ago)

4375. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 00:52:55 UTC
From: Jerry <jerrysplace2@juno.com>
Message-ID: <HVaJ9.111558$2z1.30756291@twister.socal.rr.com>
Source record: 129515

So what is the exact name and edition of Terman's book are you guys always referring to? I would be interested in obtaining a copy...Thanks for any info..

regards, Jerry..-n6jp--

"Roy Lewallen" <w7el@eznec.com> wrote in message news:uvabu2i7ei414@corp.supernews.com...
> For used books at reasonable prices (but not a couple of bucks), try
> http://www.powellsbooks.com. That's where I've gotten most of the books
> in my library.
>
> Roy Lewallen, W7EL
>
> OC_CAM's Razor wrote:
> > Larry Phipps wrote:
> >
> >> Amazingly, I found a copy of Terman's Radio Engineering and also a
> >> copy of
> >> Antennas by Kraus at a small used book store in a college town near me
a
> >> number of years ago. I think I paid a couple bucks for the pair.
> >
> >
> > Heck, I'll pay you double what you paid for them. :-)
>

4376. Re: Oh Calamity ! SOS !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 00:55:29 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <jleavusk40nrgnhma1246tectf22ghl64k@4ax.com>
Source record: 129516

On Tue, 10 Dec 2002 00:45:29 +0000 (UTC), "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

|Here in the civilised UK I am not bothered with rattlers, skunks or mountain
|lions and do not have a gun licence.
|
|But a domestic (jumping) wolf spider, about 3/8" across, before I could find
|something to swot him with, has just disappeared into a ventilation hole on
|my 14" video monitor.
|
|It's taken my mind right off reflected power.
|
|I've done an unsuccessful Google.
|
|What's the breakdown volts of a dry, 3/8", electrocuted, wolf spider?

Spider? That's not a spider, _this_ is a spider.

http://users.triconet.org/wesandlinda/tarantula.jpg
|

4377. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 00:59:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvaf4gfkvhupe3@corp.supernews.com>
Source record: 129517

Actually, I seldom reference Terman, but the one I've got is his Radio Engineering, Third Edition. I've noticed in some earlier discussions that the text in some portions of the Third Edition is extensively revised in places, and recall one instance where it looked like he had significantly changed the meaning of what he was saying. So I recommend that anyone getting this book look for the latest edition available. I don't know how many editions there were altogether. I know Terman wrote at least one other big seller, but don't recall the title. I'm sure someone else will provide it.

Roy Lewallen, W7EL

Jerry wrote:
> So what is the exact name and edition of Terman's book are you guys always
> referring to? I would be interested in obtaining a copy...Thanks for any
> info..
>
> regards, Jerry..-n6jp--

4378. Re: Oh Calamity ! SOS !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 01:01:35 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <P1bJ9.12696$y14.1062727@news1.east.cox.net>
Source record: 129518

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:at3df9$ko3$1@helle.btinternet.com...
> Here in the civilised UK I am not bothered with rattlers, skunks or
mountain
> lions and do not have a gun licence.
>
> But a domestic (jumping) wolf spider, about 3/8" across, before I could
find
> something to swot him with, has just disappeared into a ventilation hole
on
> my 14" video monitor.
>
>

Thank God it was the domestic variety. By the way, how far can they jump?

Pete

4379. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 01:06:28 UTC
From: Eric Oyen - N7ZZT <eric.oyen@cox.net>
Message-ID: <pan.2002.12.09.18.07.43.463.17153@cox.net>
Source record: 129419

In article <asvi54$uel3f$1@ID-137411.news.dfncis.de>, "Truckdrivingman"
<truckdrivingman@hotmail.com> wrote:

> Hi OMs
> May someone tell me the gain of the Solarcon Antron99 ? I've heard
> something of 6.88 dBi.Is this correct ?
>
> 73
> Tom

well,
thats a tricky one. having taken one of these apart and actually figured
out the guts...
its nothing more than an end-fed halfwave antenna with a tunable
transformer at its base. it has more gain than a 1/4 wave verticle, but
not quite that of a dipole..

otherwise, its a pretty nice antenna for working local stuff.

DE N7ZZT (Eric Oyen)
Phoenix, arizona

--
the difference between intelligence and stupidity is that intelligence
has its limits.

4380. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 01:07:47 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <0odavu8f95ck5q1bv77nb3e7s54rakt4nu@4ax.com>
Source record: 129420

On Mon, 09 Dec 2002 16:47:03 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Richard Clark wrote:
>> Failing answering the technical question twice,
>> you choose here to fulfill the stereotype.
>
>I am not aware that I failed to answer the technical question, Richard.
>Could be I missed something and didn't recognize the question. What was
>the technical question?

Hi Cecil,

Never mind, pardner. Richard, who I originally responded to, might be
able to bulldog that steer in less than 6 times out of the gate. :-)

73's
Richard Clark, KB7QHC

4381. Re: Dual Band Antenna Sought

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 01:23:28 UTC
From: Rich <rk911@ANTISPAM.yahoo.com>
Message-ID: <8fgavuke4tgif6nnd0logfo3489fbbdpue@4ax.com>
Source record: 129421

i found their web site and have contacted them. thanks for the heads
up.

73
Rich, N9DKO

On Mon, 09 Dec 2002 13:34:14 GMT, Rich <rk911@ANTISPAM.yahoo.com>
wrote:

>hi, jim. sounds promising! does he have a web site or e-mail
>address??
>
>73,
>
>rich, n9dko
>
>
>On Sun, 08 Dec 2002 22:17:36 GMT, "Phantom" <newt@aol.com> wrote:
>
>>They do exist ! I use the 500C made by Austin Custom antennas in N.H. His
>>call is K1QIZ and his antenna are super. Now they are NOT 5/8 wl but I have
>>tested these antennas and compared them to the normal antennas (being the
>>normal 5/8 wl) and found them to perform better. The reason is they are
>>center fed with a special feed system and the take off angle is on the
>>horizon as compared to most ham antennas that you buy
>>
>>Hope this helps
>>
>>Jim WA3MEJ
>>
>>"Rich" <rk911@ANTISPAM.yahoo.com> wrote in message
>>news:tp07vussvm98giv5ff8jncjvnjro27nl98@4ax.com...
>>> I'm looking for a dual-band (144/440) mobile 5/8 antenna with a 3/8x24
>>> base, not an NMO base. I've been told that this item may not exist.
>>> 1/4 wave antennas with the 3/8x24 base antennas are very common but
>>> that's not what I want. Any leads? I'm currently checking the web
>>> sites of all the major antenna mfg's but I was hoping someone here
>>> would have a lead. Thanks.
>>>
>>> 73,
>>>
>>> Rich, N9DKO
>>>
>>

4382. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 01:27:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvago6jtls9pb0@corp.supernews.com>
Source record: 129422

If you ever get to Portland, be sure and stop in at Powell's. It's quite a place. The technical bookstore is in a separate building, and is an impressive bookstore by itself.

Roy Lewallen, W7EL

Larry Phipps wrote:
> Good link, Roy. A quick search showed Terman and Jasik offered at roughly
> $30. I couldn't help but notice a new edition of Antennas by Kraus for
> $155!!!
>
> --
> 73,
> Larry N8LP
> www.telepostinc.com/n8lp.html

4383. Re: Need advice for 433.92 reception antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 01:30:28 UTC
From: foolnaround <foolnaround@zero.net>
Message-ID: <jpgavuc1v6eo42qh2lo9bc1ji0cc095o4i@4ax.com>
Source record: 129423

KMA Antennas at www.kmaantennas.com. They specialize in directional
antennas, but also fabricate some custom models like you're wanting.
FAR

On 9 Dec 2002 16:19:37 -0800, kmic5@hotmail.com (jim) wrote:

>I am looking for an omni-directional antenna for a receiver that picks
>up 433.92mhz transmission from miniature security tags. The tags are
>constantly moving (mostly installed in vehicles for automatic gate
>entry) and need to be picked up effeciently and quickly. The power
>output for the tags is listed as: -14 dBm, 72 db ï¿½V, 4300 ï¿½V/m, 38ï¿½W.
>The receiver has a female BNC antenna connection.
>
>The tags should be receptive to over 115ft but no matter where we
>locate the receiver, the max is less than 30ft.
>
>Any recommendations for manufacturers or types of antennas that might
>be suitable for my application is appreciated.

4384. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 01:31:58 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <iubJ9.7159$4j5.3562954@newssvr28.news.prodigy.com>
Source record: 129511

Good link, Roy. A quick search showed Terman and Jasik offered at roughly
$30. I couldn't help but notice a new edition of Antennas by Kraus for
$155!!!

--
73,
Larry N8LP
www.telepostinc.com/n8lp.html

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:uvabu2i7ei414@corp.supernews.com...
> For used books at reasonable prices (but not a couple of bucks), try
> http://www.powellsbooks.com. That's where I've gotten most of the books
> in my library.
>
> Roy Lewallen, W7EL
>
> OC_CAM's Razor wrote:
> > Larry Phipps wrote:
> >
> >> Amazingly, I found a copy of Terman's Radio Engineering and also a
> >> copy of
> >> Antennas by Kraus at a small used book store in a college town near me
a
> >> number of years ago. I think I paid a couple bucks for the pair.
> >
> >
> > Heck, I'll pay you double what you paid for them. :-)
>

4385. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 01:39:03 UTC
From: gaschafer@attbi.com
Message-ID: <3df50a01.21447191@netnews.attbi.com>
Source record: 129424

On Mon, 09 Dec 2002 09:37:14 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Gary Schafer wrote:
>> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>>The Bird wattmeter uses vector addition to subtract out one of the waves.
>>>It will read either forward joules/sec or reflected joules/sec depending
>>>on where the slug is set.
>
>> But a Bird watt meter does do just that. It does not distinguish which
>> direction the voltage is coming from, only the current direction. That
>> is why the Bird watt meter reads higher forward
>> power when there is reflected power present.
>
>The forward power is actually there. That's why there are greater losses
>in coax when the SWR is high. Please sit down and do the vector math
>graphically for yourself. Assuming all the boundary conditions are met,
>adding the current vector to the voltage vector yields a signal proportional
>to the actual forward power. Subtracting the current vector from the voltage
>vector yields a signal proportional to the actual reflected power.
>
>> That is also why the Bird watt meter will read 100 watts forward and
>> 100 watts reflected when
>> there is an open or no line connected to the meter output side. There
>> is no current to be read, only voltage. That is why it tells you there
>> is 100 watts when there is really no power flowing.
>
>There is energy flowing, i.e. power, and there is current flowing. If we
>are dealing with 50 ohm coax, the forward voltage will be 70.7V and the
>forward current will be 1.414A. The reflected voltage will be 70.7V and
>the reflected current will be 1.414A. The peak (loop) voltage will be 141.4V.
>The peak (loop) current will be 2.828A. You can measure all of this. That
>current heats up the coax. Why do you think there is no energy flow?
>
>I don't know of any RF engineers who haven't, in one way or another, been
>seduced by the steady-state model. In reality, true steady-state doesn't
>exist for AC since the voltage and current are continuously changing. RMS
>values are averages invented by the human mind to make things easier for us.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>
>

If you disconnect the line from the watt meter then where is the power
going to flow? The meter will read 100 watts forward and 100 watts

reflected with very little voltage actually driving it. Is
there still 100 watts forward and 100 watts reflected?

73
Gary K4FMX

4386. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 01:43:43 UTC
From: richardharrison@webtv.net
Message-ID: <8362-3DF546CF-625@storefull-2313.public.lawson.webtv.net>
Source record: 129426

Jerry wrote:
"So what is the name of Terman`s Book---?"

There are several. My first was "Radio Engineering" published in 1932 and again in 1937. I bought mine in 1947. Terman also co-authored a book on Measurements. Terman also authored several editions of "Radio Engineering Handbook". These were less pedantic and more for easy reference. My favorite is Terman`s "Electronic and Radio Engineering", fourth edition , from 1955. It is recent enough to include transistors.

Terman invented Silicon Valley by persuading Stanford, where he was dean of engineering, to lease out tracts on surplus school property to create an industrial park. Former students with fledgling companies, such as Hewlett Packard,
set up shops there, and the rest is just more history.

est regars,Rihard Haison, KB5WZI

4387. Re: AM Peak Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 01:54:50 UTC
From: gaschafer@attbi.com
Message-ID: <3df5495f.37672195@netnews.attbi.com>
Source record: 129425

Shouldn't your "Average voltage" really be RMS voltage?

How do you come up with 40kw and 160kw peak power from a 1kw
transmitter?

I would come up with 8 kw peak power.

What I was referring to was "peak envelope power" which is 4 times the
carrier power with 100% modulation.

The point was that you can not just add the power in the side bands to
the carrier power to find
peak envelope power. No matter how you convert those powers. You must
first add the
voltages (or currents) associated with each together and then compute
the power.

73
Gary K4FMX

On Mon, 9 Dec 2002 08:19:45 -0600, "Richard Fry" <rfry@adams.net>
wrote:

>RE: Previous clips below the * * * *
>
>Peak envelope power is related to zero volts/amps/watts, your choice, and
>the respective maximum of that unit -- not the peak-peak excursion of the
>composite RF waveform as viewed in the time domain (a transmitter does not
>produce "negative power").
>
>There is sometimes confusion of average and peak values when discussing this
>subject. Following is a paste from a spreadsheet showing the various
>derivations and values for the conditions stated.
>
> GIVEN:
>
> VSWR = 1:1
> 1,000 ohm Impedance (R)
> 1 kW Unmod Carrier Power
>
>
>and
>
> Avg Volts = (1 + Mod Index) * SQRT(VSWR * Unmod Avg Carrier Pwr * R)
> Peak Volts = Avg Volts * 1.414
> Peak Power = Peak Volts^2 / R

>
>
>THEN, for SINEWAVE AMPLITUDE MODULATION
>
>Modulation % 0 100
>Mod Index 0.00 1.00
>
>E avg (V) 1,000 2,000
>E peak (V) 1,414 2,828
>Pk Pwr (kW) 40 160
>
>R. Fry
>
>* *
>
>> >Suppose you have a 100% modulated 1000 watt carrier and it is impressed
>> >on 1000 ohms. The carrier will produce 1000 volts. Each sideband
>> >contains 250 watts and produces 500 volts across 1000 ohms. When
>> >carrier and both sidebands coincide in phase, their voltages add to 2000
>> >volts on one side of the peak and add to zero volts on the other side of
>> >the peak.
>-----------
>
>> Which gives a peak envelope power of 4000 watts. Greater than the sum
>> of the power in the carrier and the side bands. The only way to
>> determine peak envelope power is to first add the
>> voltages and or currents. It can not be obtained by directly adding
>> the powers together.
>
>

4388. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 02:38:20 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <5hkavukdiugra39v4r3cb5b3teojknmiis@4ax.com>
Source record: 129427

On Tue, 10 Dec 2002 00:52:55 GMT, "Jerry" <jerrysplace2@juno.com>
wrote:

|So what is the exact name and edition of Terman's book are you guys always
|referring to? I would be interested in obtaining a copy...Thanks for any
|info..

There are several varients. I personally have both "Radio
Engineering", Third Edition (1947) and "Radio Engineer's Handbook",
First Edition (1943).

The flyleaf of latter lists his other books as: "Radio Engineering",
Fundamentals of Radio" and "Measurements in Radio Engineering."

Regardless of which one(s) you have, someone will quote from the one
you don't have <g>.

Wes N7WS

4389. Re: OCXO

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 02:41:23 UTC
From: "Bob M." <xxxxx@yyyy.zzz>
Message-ID: <wiCdnVJwJqetyWigXTWcoQ@comcast.com>
Source record: 129428

The problem with searching for "ocxo" is that you may miss a lot of ovenized oscillators this way. Not everyone who lists things on eBay does so with such explicit descriptions. Also, you won't find many with 10 MHz listed in the title, but it'll darn well be mentioned somehow in the text of the auction. Having bought three oven oscillators from people on eBay, I speak from my experience.

If the poster wants a NEW OCXO, places like Vectron are a good place to spend lots of money.

Bob M.
======
"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:uv83rjsuol9pae@corp.supernews.com...
> just type in ocxo in ebay, titles and descriptions..
> also look for an HP 5328A with the high stabilty which is the HP 10811
high
> stabilty OCXO, one of the finest on the market...
> Another optio is to look for a Racal 1992 with high stability oscillator..
> However I I think you'll find a better deal on an HP 5328A..
> there's several rith now andheres a list:
>
http://search.ebay.com/search/search.dll?MfcISAPICommand=GetResult&SortPrope
> rty=MetaEndSort&ht=1&query=5328a
> good luck
> hank wd5jfr
> <jsideburns@yahoo.ca> wrote in message
> news:a701e809.0212081234.3e21029a@posting.google.com...
> > Hi all, I'm looking for an OCXO or a TCXO at 10 MHz in the $200 price
> > range. Does anyone know where I can buy one on line? A website would
> > be great.
> >
> > THNX
>
>

4390. Re: Very Interesting Indeed...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 03:34:06 UTC
From: Leland Cox <lcox107@comcast.net>
Message-ID: <3DF560AE.3050501@comcast.net>
Source record: 129430

Get a boat!!!!

Leland Cox
Les, AA4F

Mark Hall wrote:

> How about a fertilizer that increases ground conductivity to the point
> where radials aren't required? Now that would be "Very Interesting
> Indeed..."
>
>
>
> '73 KI4Z
>
> "Kenny Hammond" <kh@jetinvest.com <mailto:kh@jetinvest.com>> wrote
> in message news:0211192351311360@9.222.11.192.in-addr.arpa...
>
> November 20 , 2002 1:18 am The Investors' Edge *****Undervalued
> Equities***** VICI-OTCBB Victor Industries,Inc.-Missoula,MT "Showing
> The World How Green We Are" Current Price: .013 Bid: .013 Ask: .015
> The Company: Victor Industries, Inc. is engaged in the manufacturing
> & sale of Commercial grade fertilizer, fertilizer batteries, & the
> detoxification of ground water & wellwater. (Removal of harmful
> nitrates & radioactive particles) The Company administrator &
> President have just returned from a publicly held trade show in
> Portland, OR & have established relationships & have signed
> distribution agreements with three major wholesalers who intend to
> begin distribution of ENVIROLIZER : Victor Industries' Legendary
> fertilizer solution designed for commercial & private use. The
> company is about to release their new list of distributors (Very
> shortly) ENVIROLIZER Guarantees 55% Increase in growth: Crops,
> Greens, Vinyards & Flower Gardens; As well as a 38% reduction in
> watering. An Excellent solution for Farmers & Gardeners Worldwide.
> "A 62% increase in growth at one of California's finest vinyards!"
> As Published in: The American Vinyard, June 02 "Satisfaction
> Guaranteed or your Money Back!" Victor Industries stands by their
> product and will repurchase any unused portions. Proposed commitment
> from wholesale chain: 475 Tons Per Month Price Per Ton: $1,200.00
> Gross Revenue: $570,000. Per Month & $6,840,000. Annually Current
> Revenue: $1,800,000. Projected Gross Revenue Per Share: $.1273 (With
> New Contracts) Projected Net Revenue Per Share: $.098 Projected EBIT
> per share (Earnings Before Interest & Taxes): $.074 Projected Net
> Earnings per share: .042 Projected Market Price: 15 Times
> Earnings=$.63 Per Share Within 90 Days At .013 it's tremendously

> undervalued. All replies to: www.victorindustries.com This news
> release may contain forward-looking statements within the meaning of
> Section 27A of the Securities Act of 1933, as amended, and Section
> 21E of the Securities Exchange Act of 1934, as amended, such
> statements are subject to risks and uncertainties that could cause
> actual results to vary materially from those projected in the
> forward-looking statements. The Company may experience significant
> fluctuations in operating results due to a number of economic,
> competitive and other factors. These factors could cause operation
> results to vary significantly from those in prior periods, and those
> projected in forward-looking statements. Information with respect to
> these factors which could materially affect the company and its
> operations are included on certain forms the company files with the
> Securities and Exchange Commission.
>

4391. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 03:45:14 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212091945.23d71af2@posting.google.com>
Source record: 129431

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3DF4EAB3.5010007@ieee.org>...
> Art Unwin KB9MZ wrote:
> > Cecil, could you put my
> > antenna sayings, claims and what have you and read what Terman said as
> > if you were going to follow his sayings with respect to a antenna ?
>
> Art, do you have a web page? I am a visual person and often get absolutely
> lost in word descriptions including yours. I have little idea what your antenna
> looks like. If you could post a diagram of your antenna, a picture would be
> worth a thousand words. Or send me the diagram and I'll be glad to post it.
>
> If I had to guess what your antenna looks like it would be (in fixed font)
> but not to scale:
>
> --> | |
> | |
> | |
> | |
> +-----------FP-----------+

Close, but the side of the loop next to the dipole is part of the
dipole. A few months ago, he agreed this picture matched the antenna
he had in mind.
http://web.wt.net/~nm5k/loopole.jpg

I also redid your picture above to match the antenna. The "loop" wires
connect to the dipole. He also used a variable cap within the loop to
tune out reactance. Dunno, but I think he has invented the delta match
with square sides and added a cap for more tuning capability without
moving the tap points. The "loop" section acts no more like a loop
than the "triangle" of a delta match acts like a delta loop when
feeding a dipole. There is also no way to steer the pattern using such
a matching device if that is the intent. "Seems to be". You are not
using two elements. You are using a single dipole fed with a modified
delta match. If the loop were seperate, and both elements fed with
seperate lines, I suppose you could steer the pattern to a degree. But
being the loop is too small to have the desired "loop" ?? properties
on the bands in question, I don't think the performance would come
close to say parallel dipoles phased. Being the very small loop is not
too efficient once you match it to the line, overall antenna
efficiency would be less than a single dipole fed in an efficient
manner. I also don't have any Terman books, but in this case, I don't
think I really need one. I came to my conclusions on the design a few
months ago when I modeled it. So far no one is argueing with me, and

plenty here know way more than I do. MK

4392. Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 03:47:34 UTC
From: Geoff <swooutdoors@hotmail.com>
Message-ID: <qtdJ9.97155$pN3.6830@sccrnsc03>
Source record: 129432
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

"pk" <fpkearn_twelve@rondomondo.eircom.tv.ie.au> wrote in message
news:3df4f3a0.1247471@news.eircom.net...
> "Geoff" <swooutdoors@hotmail.com> wrote:
>
> > GPS receivers only receive signals, they do not transmit them. I have
looked
> > and looked over the internet and I still can not find one instance of a
cell
> > phone (or similiar device) causing an accident. This leads me to believe
> > that the regulation has less to do with the safety of the plane and more
to
> > do with the possible congestion of the cellular networks when people at
> > 30,000 feet are tying up several hundred towers.
>
>
> it is my opinion that there are plenty of reports floating around of both
> proven and suspected interference with aircraft systems which show up for
> a few seconds and once corrected/eliminated by the crew (cabin or cockpit)
> do not occur.
>
> yes, the cell-companies dont like having lots of their ground stations
> reporting what the signal strength of a phone at 35000feet is as the whole
> width of florida can in theory be covered at only 10,000feet.
> (see people taking calulators out now... 1.23 square root....)
>
> can you imagine what it would be like to have 1000 phones active and being
> traced by huge chunks of the network ?
> now multiply again by another 400 and you get a rough and probably
> slightly high approx of how many phones *could* be in air at 1600hrs
> Colorado time. thats alot of tracking to be done and in one country.
>
>
> airlines will always put the safety of their passengers ahead of any
> cellular phone network. if they dont - accidents happen.

I completely agree that there are instances of Rf causing interference with
aircraft systems. I am sure that there are hundreds of first hand accounts
from pilots about this issue. I am just wondering what a .3 watt cell phone
is going to contribute to the issue. As far as your last statement, I just
wish they put out safety first period, cellular network or not.

p.s. I dont want to use my cell phone (or anybody else's for that matter) on
a plane because I enjoy the unavailability and relative silence

4393. Re: What kind of antenna grease/lubricant for antenna assembly

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 03:47:48 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3df568a5_4@news1.prserv.net>
Source record: 129433

Ye gods, this is from a long time ago.
The stainless seizure myth is based on the problem that no one uses torque tools, and invariably over tightens stainless. I have literally thousands of pieces of stainless hardware in service, some for 25 years or more, and have yet to encounter this seizing problem. But, several other regulars on this NG will agree with you based on their experiences with ham-handed construction crews. Use the torque specs correctly, and you can stay out of trouble.
--
Crazy George
Remove NO and SPAM from return address
"J. McLaughlin" <JCM@Power-Net.Net> wrote in message
news:uvae6pamngejc9@corp.supernews.com...
> Another advantage of Penetrox-A is its anti-seize properties. When
> using SS screws, or the like, its use is mandatory or things will break.
> 73 Mac N8TT
>
> --
> J. Mc Laughlin - Michigan USA
> Home: JCM@Power-Net.Net
> "Crazy George" <munschNO@attglobal.net.SPAM> wrote in message
> news:3ce329eb_4@news1.prserv.net...
> > I prefer Burndy Corp. Penetrox - A. The -A is for aluminum to
> aluminum.
> > Other suffix letters are for other metals. Actually, if you can find
> a
> > power line crew installing aluminum conductors, you can scrounge some
> of
> > this or an equivalent product they use inside their compression
> connectors.
> >
> > --
> > Crazy George
>
>

4394. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 03:52:52 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212091952.1a70f127@posting.google.com>
Source record: 129434

richardharrison@webtv.net (Richard Harrison) wrote in message news:<2452-3DF4BC06-180@storefull-2315.public.lawson.webtv.net>...
> Art, KB9MZ wrote:

>
> Note also in Table 23-1, the tiny elementary dipole has a 1.5 gain ratio
> with an isotropic. A 1/2-wave wire in space has a 1.64 gain ratio over
> the isotropic. The extra gain of the 1/2-wave antenna is not redundant
> if more is better.

The reason I said element length was fairly redundant on all bands was the most important part to decent performance is efficient matching to the line. Sure, a half size dipole has slightly less gain than a full size, but not enough to really be noticed as long as you can get power to it. But thats the real trick.
Easier said than done to truly compete with a full size antenna. MK

4395. Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 04:19:30 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <3DF57992.26F059D2@townsqr.com>
Source record: 129435
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

pk wrote:

> Zoran Brlecic <WA7AA@attbi.com> wrote:
>
> > > GPS receivers only receive signals, they do not transmit them.
> >
> > It doesn't matter. Every receiver has some sort of an oscillator which,
> > albeit very weak, *could* interfere with the aircraft's sensitive
> > navigation and control systems. Especially if every passenger fired up
> > one or more of those.
>
> <flames off>
> <respect on>
>
> given that most local-oscillators are (whats the term)
> high-side-injection (or something like that) and given that the vhf nav
> band is right above the vhf broadcast band, there is a high probability
> that an ordinary radio could be tuned to a frequency that is X MHz (e.g.
> 10.7) away from a valid vhf navigation frequency.
>
> e.g. listen to KXYZ on 101.6 => 100.6 + 10.7 = 111.3
> (assumption: KXYZ is on 100.6 and is a valid fm broadcast freq)
>
> 111.3 happens to be a valid ILS frequency and IF (big IF) its the active
> one for a particular airport then you might have problems landing because
> someone has a radio on in the cabin.
>
> i have personal experience of a personal-stereo-radio that could blot out
> other broadcast stations by using its local-osc.
>
> and remember it doesnt need to blot out the frequency, just cause enough
> inteference for the airborne radio to reject the detected info off the
> radio signal.

Another consideration is all the possible mixing products that can occur at altitude that could include those caused by the plane's transmitters, and even signals from the ground (possibly a great many) that are quite strong due to line-of-sight propagation that could cause spurious mixing products, even to several orders. The more signals that mix together the more the likelihood of a product that could interfere, threatening the plane's safety. The possibilities for interference to avionics actually seem pretty high when you consider all the possible sources..

But it hasn't always been forbidden. In 1972 I worked Bill Leonard, W2SKE, on 2 meters FM while he was a passenger on a commercial airliner at 33,000 feet flying from Dallas TX to New York. (I was in southern Missouri) He was using the same type rig that I was - a Drake TR22 transceiver- running 1 - 1/2 watts which he said he was holding up to the window. The TR22 was a battery powered "handheld" but certainly not a handi-talkie, there were no HT's common in ham radio at that time. It wasn't until some time later that the ban came about.

Thinking back, I did some rather amazing things with my little 1-1/2 watt TR22. Like working repeaters 200 miles away full quieting when I hooked it to a VHF commercial hi-band antenna 200 feet up a tower. Several of us hams who were also motorcycle riders used them for motorcycle mobile.

Dick

4396. Which moblie cb radio antenna with big coil is the best

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 04:20:49 UTC
From: Recordking@Hotmail.com
Message-ID: <e8d89b3f.0212092020.24ed6a9@posting.google.com>
Source record: 129436

Which moblie cb radio antenna with big coil is the best out of these monkey,skyhawk,workman sp2000 or sp3000, megatron,sparrow/penetrator or any other good mobile big coil cb radio antenna. I what to know which one works will with low or high power. I have a uniden pro 510xl mobile radio and want to get a big coil antenna that is no more than 4 & 1/2 to 5 ft high. Looking for what u think I should get. I know some might say that a big coil is a waist of money for what I have but I still want to get a good one because I like the way they look.

4397. Re: Oh Calamity ! SOS !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 04:24:37 UTC
From: tdonaly@aol.com
Message-ID: <20021209232437.11708.00000282@mb-cc.aol.com>
Source record: 129437

Reg wrote,
>
>Here in the civilised UK I am not bothered with rattlers, skunks or mountain
>lions and do not have a gun licence.
>
>But a domestic (jumping) wolf spider, about 3/8" across, before I could find
>something to swot him with, has just disappeared into a ventilation hole on
>my 14" video monitor.
>
>It's taken my mind right off reflected power.
>
>I've done an unsuccessful Google.
>
>What's the breakdown volts of a dry, 3/8", electrocuted, wolf spider?
>

He'll probably come out and walk all over your face tonight while you're
asleep. Dinky spiders, wimpy earthquakes, no shootin' irons, no snakes,
skunks, or
Republicans... What do you fellows do for danger over there in
the UK?
73,
Tom Donaly, KA6RUH

4398. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 04:51:25 UTC
From: richardharrison@webtv.net
Message-ID: <8365-3DF572CD-30@storefull-2313.public.lawson.webtv.net>
Source record: 129438

Richard Clark wrote:
"Where is the 9W coming from (if all the reflected power is consumed in an isolator)?

The source of all incident power is the transmitter and that power is all newly supplied, not recycled, when an isolator prevents a recycle.

A mismatch between coax and load is between two immutable impedances which enforce separate voltage to current ratios. An incident wave hitting a mismatch has either too much voltage or too much current to be completely absorbed by a mismatched impedance which is either too low or too high to accept all the power beibg carried in the coax. The surplus must be rejected. Rejection means "Return to Sender".

The cause of the reflection is the discontinuity.

In the example, 100 watts must be delivered by the transmitter right now, if 10 watts is to be reflected, because the added isolator eliminates a recycled 10 watts to merge with 90 watts of newly emerging energy for an incident total of 100 watts.

If only 90 watts is available from the transmitter, only 9 watts will be reflected. 10% of the incident power is reflected, as I understand the problem. That isolator isn`t "green" because it is an enemy of recycling.

Best regards, Richard Harrison, KB5WZI

4399. Re: Need advice for 433.92 reception antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 05:20:31 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <3DF5799F.5BB93671@core.com>
Source record: 129439

See Fractal Antenna Inc.should be right up their alley....

jim wrote:

> I am looking for an omni-directional antenna for a receiver that picks
> up 433.92mhz transmission from miniature security tags. The tags are
> constantly moving (mostly installed in vehicles for automatic gate
> entry) and need to be picked up effeciently and quickly. The power
> output for the tags is listed as: -14 dBm, 72 db ï¿½V, 4300 ï¿½V/m, 38ï¿½W.
> The receiver has a female BNC antenna connection.
>
> The tags should be receptive to over 115ft but no matter where we
> locate the receiver, the max is less than 30ft.
>
> Any recommendations for manufacturers or types of antennas that might
> be suitable for my application is appreciated.

4400. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 05:23:57 UTC
From: richardharrison@webtv.net
Message-ID: <2452-3DF57A6D-229@storefull-2315.public.lawson.webtv.net>
Source record: 129441

CAM, W5DXP wrote:
"The first derivative of DC is zero. The first derivative of an AC sine wave of any frequency is a cosine wave of the same frequency."

That makes sense as the derivative is the rate of change at a point. DC doesn`t change with respect to time. So zero is an appropriate first derivative A sine wave has maximum slope when its value is zero and zero slope when its value is maximum. A cosine wave can be characterized by shifting a sinewave 90-degrees and thus illustrates the slope of the sinewave at any corresponding point.

Best regards, Richard Harrison, KB5WZI

4401. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 05:42:05 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212092142.7fb70631@posting.google.com>
Source record: 129440

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
Cecil,
I sent a posting immediately after I answered your posting.
With respect to your drawing you are correct but please ensure that
it is the dipole that is driven. Also in my case the loop and
the dipole theyare coupled so that one side of the loop is in physical
and electrical contact. To determine the basics of the antenna you
should
review the use of such a circuit in a quenched spark gap transmitter
and how such a coupling is utilised plus 'energy distribution' curves
of same. Occillation knoweledge comes in handy but not necessary.
Yes it is really very old stuff that most have forgotten

The posting that I made afterwards apparently did not get out so I
will
repeat the basics now.
I have given up on the described antenna and this thread. I thank all
for their kindness and considerations and the extra leeway they have
given me in the past and these thanks also go to Mr Clark who I have
maligned in the past.
I wish you ALL a merry Xmas with your families and also a safe one for
all.
Merry Xmas and a Happy New Year.
Slimey Limey
Art
Art

news:<3DF4EAB3.5010007@ieee.org>...
> Art Unwin KB9MZ wrote:
> > Cecil, could you put my
> > antenna sayings, claims and what have you and read what Terman said as
> > if you were going to follow his sayings with respect to a antenna ?
>
> Art, do you have a web page? I am a visual person and often get absolutely
> lost in word descriptions including yours. I have little idea what your antenna
> looks like. If you could post a diagram of your antenna, a picture would be
> worth a thousand words. Or send me the diagram and I'll be glad to post it.
>
> If I had to guess what your antenna looks like it would be (in fixed font)
> but not to scale:
>
> ---
> +-----------------------+
> | |
> | |

> | |
> +-----------FP-----------+
>
> > Your writings and experiments show that you are an independent thinker
>
> Art, I am such an independent thinker that I have never, to the best
> of my memory, cracked open a copy of Terman - not that I haven't tried
> to find one. The extent of my modest RF library is Johnson, Ramo/Whinnery,
> Skilling, Balanis, Schaum's Outlines, "Reference Data for Radio Engineers",
> and ARRL/ham publications.

4402. Re: Oh Calamity ! SOS !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 05:49:26 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DF5806D.D11B9562@shaw.ca>
Source record: 129442

Uncle Peter wrote:
(snipped for brevity) By the way, how far can they jump?
>
> Pete

It depends on how high the voltage is!

--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4403. Re: Characterizing a commercial trap

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 06:14:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvb1i0llu1nn71@corp.supernews.com>
Source record: 129443

Reg Edwards wrote:
> . . .
> But as we are interested ultimately only in the temperature rise above
> ambient, that can be measured directly with some sort of thermometer.
> . . .

"We" is presumably the group of people running so much power that a few dB reduction of signal is of no consequence, but there's a danger of melting traps. That group would presumably be interested only in temperature rise.

As for the rest of us, though, the drop in field strength caused by loss is more important. For a given amount of loss, a large number of factors can influence temperature rise -- surface area, thermal conductivity of connected wires, how breezy it is, and the heat capacity of the trap, to name a few. The amount of temperature rise caused if the trap were to lose the entire power applied to the antenna is only twice the temperature rise caused by a 3 dB trap loss. A small breeze or poor thermometer contact could easily cause this much variation unless you're dumping in enough power to get the trap really hot. So with a field measurement of temperature rise, you might easily be unable to tell the difference between 2 dB and 20 dB loss.

So I'll exclude myself from the "we" group. I'm interested in signal strength reduction, and not how warm the trap gets.

Roy Lewallen, W7EL

4404. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 06:26:02 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF588FA.2070502@ieee.org>
Source record: 129444

Gary Schafer wrote:
> If you disconnect the line from the watt meter then where is the power
> going to flow? The meter will read 100 watts forward and 100 watts
> reflected with very little voltage actually driving it. Is
> there still 100 watts forward and 100 watts reflected?

Of course, if the coax between the transmitter and wattmeter is short,
that's what's known as same-cycle reflection. The reflection model
still works perfectly, i.e. it is mathematically consistent.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4405. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 06:43:53 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF58D29.5060902@ieee.org>
Source record: 129445

VE9SRB wrote:
> All that happens in transmission line as the system transitions to the
> steady state is following: In the forward direction, the total forward
> voltage increases through the vector addition of the multiple forward
> voltages (Vtotal = V1 + V2 + V3 + ...). As the total forward voltage
> increases, the total forward power increases as a function of the square of
> the magnitude of the total forward voltage.

The total forward voltage increases because of constructive interference
mirrored by the destructive interference of reflected waves in the rearward
direction. That's re-reflected power.

> In the rearward direction, the
> total rearward voltage decreases through the vector addition of the multiple
> rearward voltages (Vtotal = V1 + V2 + V3 + ..). As the total rearward
> voltage decreases, the total rearward power decreases as a function of the
> square of the magnitude of the total rearward voltage.

The total rearward voltage decreases with increasing destructive interference
between reflected waves. Every increase in destructive interference is mirrored
by a corresponding increase in constructive interference in the forward direction.
In a matched system, reflected power is involved in the destructive interference.
That makes the constructive interference in the forward direction re-reflected
power.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4406. Re: Very Interesting Indeed...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 07:35:38 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0212092335.5b47798e@posting.google.com>
Source record: 129446

"Mark Hall" <mark.hall34@verizon.net> wrote in message
news:<nGGI9.14419$903.4990@nwrddc02.gnilink.net>...
> How about a fertilizer that increases ground conductivity to the point
> where radials aren't required? Now that would be "Very Interesting
> Indeed..."
>
> '73 KI4Z

I am going to put a cheapo CB antenna into my flowerbed in spring.
After intensive fertilizing and watering, I expect to have a vertical
for 80 m in autumn. And if breeding is successful, I'll have a
vertical array for 136 kHz in 2005 ! 8-))

BR from Ivan

4407. Re: Very Interesting Indeed...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 08:38:33 UTC
From: Gordon Couger <gcouger@NOSPAMprovalue.net>
Message-ID: <XJhJ9.31388$5P3.2361674@newsfeed.slurp.net>
Source record: 129447

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:asvhlding1@venus.btinternet.com...
> "Mark Hall" wrote -
> How about a fertilizer that increases ground conductivity to the point
where
> radials aren't required? Now that would be "Very Interesting Indeed..."
> ======================
>
> Just change from being a vegetarian to eating only salt-water fish.
>

Use non-toxic levels of salt and you will get better soil conductivity and the grass won't grow faster. In clay soils the salt will stay put in sandy soils it will leach out.

Gordon W5RED

4408. Re: ARRL antenna book editions

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 08:59:55 UTC
From: Gordon Couger <gcouger@NOSPAMprovalue.net>
Message-ID: <Z1iJ9.31390$5P3.2363679@newsfeed.slurp.net>
Source record: 129448

Sean Harding wrote:
> I'm looking to pick up the ARRL Antenna Book to learn more about how
> antennas work and possibly do some simple homemade antenna projects.
> My first project would probably be an 800MHz antenna for a scanner,
> but I have an interest in learning about all kinds of antennas (so I'm
> not looking just for instructions on how to do that specific project).
>
> How much does it matter which edition of the book I get? The 19th ed.
> goes for $24-30 new, and I have seen older editions for under $10. The
> basic science doesn't seem to likely to change from edition to
> edition. So what is the real difference? I'm willing to pay for the
> newest edition if there's a good reason to do so; I just want to be
> sure I'm not throwing money away.

If you want to build antennas it will be some of the best money you spend. Get a late edition with software. New is not necessary. The next thing you need is at least the demo version of EZNEC http://www.eznec.com/index.shtml to model antennas to see what height above ground, out of plumb verticals and such do to the radiation pattern and model most of the other design factors that go into an antenna.

Gordon W5RED

4409. Re: Need advice for 433.92 reception antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 09:25:39 UTC
From: kmic5@hotmail.com
Message-ID: <da7d3410.0212100125.57b2a78f@posting.google.com>
Source record: 129449

It doesn't seem like I need custom product made for this kind of
reception. The current whip antenna I have is about 6" and I've seen
some online that are a few feet. How much improvement might I see with
a taller whip antenna? How about with a Yagi type antenna?

foolnaround <foolnaround@zero.net> wrote in message
news:<jpgavuc1v6eo42qh2lo9bc1ji0cc095o4i@4ax.com>...
> KMA Antennas at www.kmaantennas.com. They specialize in directional
> antennas, but also fabricate some custom models like you're wanting.
> FAR

4410. Re: Anyone else using a Cushcraft 148-10S ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 09:40:12 UTC
From: Doz <doz@postmaster.com>
Message-ID: <3df5b6de$0$4786$fa0fcedb@lovejoy.zen.co.uk>
Source record: 129450

That'll do.. :-)

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:l_ScnRoZ5u2UZmmgXTWcog@comcast.com...
> Doz,
>
> I have one of these, and had entered the data for it into EZNEC. That
gives
> a gain of 12.57dbi in free space.
> Tam/WB2TT
> "Doz" <doz@postmaster.com> wrote in message
> news:3df4a733$0$4780$fa0fcedb@lovejoy.zen.co.uk...
> > Just put one up.. works a treat.
> > Is the fwd gain correct 13.8db ?
> >
> > Regards,
> > Doz
> >
> >
>
>

4411. Diamond WD330S

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 09:45:39 UTC
From: "Fam. Mugge" <mugge@castel.nl>
Message-ID: <at4d1l$cc2$1@hermes.castel.nl>
Source record: 129451

I'm about to buy a shortwave antenna for my HF set and I'm thinking about a Diamond WD330S because I don't have much space around the house to use something else. I wonder however if this antenna works well on all the WARC bands. Who has tried such an antenna and in what way should it be used, as an Inverted-V, a Sloper, or as a Flat top antenna?

73's

Willem
PE1GXM

4412. Re: Oh Calamity ! SOS !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 09:49:46 UTC
From: Steve <n4lq@iglou.com>
Message-ID: <3df55654_3@news.iglou.com>
Source record: 129429

Here in Ky we wud take the monitor out back and blast it with the 12ga.

--
Steve
N4LQ

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:at3df9$ko3$1@helle.btinternet.com...
> Here in the civilised UK I am not bothered with rattlers, skunks or
mountain
> lions and do not have a gun licence.
>
> But a domestic (jumping) wolf spider, about 3/8" across, before I could
find
> something to swot him with, has just disappeared into a ventilation hole
on
> my 14" video monitor.
>
> It's taken my mind right off reflected power.
>
> I've done an unsuccessful Google.
>
> What's the breakdown volts of a dry, 3/8", electrocuted, wolf spider?
>
>

4413. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 10:20:31 UTC
From: richie_r1ch@hotmail.com
Message-ID: <6ec14ee2.0212100220.6d1739cc@posting.google.com>
Source record: 129452

Here's a little diagram I typed up of what my antenna looks like. I'm new to this so I dont know what most parts of antenna's are called so bare with me on this.

```
1. ---------------|X|-----------------
|X|
2. -----------|X|-----------
3. -----|X|-----
|X|
4. -----|X|-----
| |
5. ---| |---
6. ---| |---
7. ---|_|---
```

The "| |" is the frame where all the elements are sitting on. The "X's" are 2 aluminum rods kinda like a coathanger that go in X patterns and it connects elements #'s 1,2, and 4. The third element is attached to the bottom of the frame while the others are all on the top. I have noticed that on the fourth element where the two rods are connected to, on the bottom of the frame there are two screws that look something like knobs, so you could take them off without a scredriver, Im thinking this could probably be a possible connection place. Also, in the middle on the side of the frame there are two nuts, but I think these are meant to screw on the pole.

Right now I'm running two 75ohm cables from the antenna. One to my TV and the other to my TV card on my PC. I havent bought the transformers yet, I just stripped the wires and have been connecting them to different spots. Is there a noticeable signal loss by just stripping the cable and just wrapping the wires around an element rather than using a transformer? I've connected just the middle part of the wire to the 7th element and could get better reception on UHF channels than I can when I connect both wires "one to each rod that forms the X pattern". But VHF reception is better this way.

where would you recommend the best connection place to be based on the little diagram?

4414. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 10:38:03 UTC
From: richie_r1ch@hotmail.com
Message-ID: <6ec14ee2.0212100238.4d791999@posting.google.com>
Source record: 129453

How would I go about cleaning the antenna? Cause it's very filthy, It's dark gray already and from scrubbing it I can tell that I should be getting better reception cause the difference is big. I wanted to take it apart and clean each element individually but there are not held together by the usual screws. They are connected to the frame by something that looks like thumb tacks and and then a little circle with a border at the bottom. How do I take these off?

I'm already getting great reception on all my local channels but I want to get much better reception from the stations in San Diego. I'm in the Southern part of the Los Angeles county about 100 miles away. Sometimes I can get some of them with a little snow but watchable. And last night I was actually recieving stations from what I believe were coming from Northern Mexico. Because they are not listed in any of the sorrounding counties. And I can also get a channel 3 also in Spanish but very poor reception. I thought this channel was reserved for other purposes here? The reception on all these got far worse in the morning.

I'm hoping I can get better reception on these channels with the proper connection and some cleaning. From my roof I don't see any big buildings or trees blocking my view so I think I could do better.

thanks for replying

4415. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 11:12:57 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212100312.3c43af62@posting.google.com>
Source record: 129454

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
>
> Doesn't a half-wave vertical have the same gain relationship to a
> quarter-wave vertical as a full-wave dipole has to a half-wave
> dipole, i.e. about 2 dB?

Not according to modeling. A 2m 1/4 wave GP with sloping radials at 40 ft vs a 1/2 wave at 40 ft is about .3 db difference with the 1/2 wave having the slight edge. But this assumes good decoupling. Many 1/2 waves fall short in this regard, and the edge could easily go to the GP in many cases. MK

4416. Wideband magnetic loop please look

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 11:25:49 UTC
From: Maarten Hagg <maartenmiriam@hetnet.nl>
Message-ID: <at4j0rskh1@reader11.wxs.nl>
Source record: 129455

Dear readers,

Please look at :

http://home.hetnet.nl/~maartenmiriam/index.html

Any comment is welcome.

Maarten Hagg

4417. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 12:29:23 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DF5DE29.34254E93@uwe.ac.uk>
Source record: 129456
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

Zoran Brlecic wrote:
>
> >
> > GPS receivers only receive signals, they do not transmit them.
>
> It doesn't matter. Every receiver has some sort of an oscillator which,
> albeit very weak, *could* interfere with the aircraft's sensitive
> navigation and control systems. Especially if every passenger fired up
> one or more of those.

And the steward(esse)s can't use a microwave oven? You are joking
aren't you? If the navigation and control systems really were that
subject to RFI then they would never be allowed near an aircraft.
I suppose you believe that the satellite phones have been constructed
magically without oscillators? And the dozens of other transmitters,
receivers, transponders etc. are all built without oscillators?
Complete bullshit, Zoran. It's just another stupid bureaucratic
rule, without rhyme or reason.

vy 73

Andy, M3ABC

4418. Re: SWR Calculations/In-line Wattmeters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 12:42:30 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <HiIJ9.31768$5P3.2385355@newsfeed.slurp.net>
Source record: 129457

But the Bird won't be as accurate as the factory-set power metering in the tx, regardless of the final load Z. That is the reason why the two meters don't read the same into the customer's load, not because the load has changed from the reference load in the factory.

The Bird also would not match the tx metering if the Bird was in place during final test and cal of the tx into that optimized load at the factory.

R. Fry

"Wes Stewart" <n7ws@#arrl.net> wrote in message news:qgaavu426koppurt4io8vrdn1ttur1dfm5@4ax.com...
> On Mon, 9 Dec 2002 15:09:59 -0600, "Richard Fry" <rfry@adams.net>
> wrote:
>
> |A high-power dummy load that has been trimmed/matched to a very low input
> |VSWR for the frequency, as determined by accurate test equipment and
> |methods.
>
> Aha. So when the customer connects the transmitter to *his* load he
> might well (more than likely) get different results. His Bird might
> not be fibbing after all <g>.
> |___________________
> |
> |"Wes Stewart" n7ws@#arrl.net wrote
> |>
> |> What is an "optimized load"....?
> |>
> |
>

4419. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 13:08:27 UTC
From: Jack Smith <jsmith@mnsinc.com>
Message-ID: <hfpbvukdl843ulldkn8v9uj0afgvpnku3b@4ax.com>
Source record: 129459

On Mon, 09 Dec 2002 16:59:46 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Actually, I seldom reference Terman, but the one I've got is his Radio
>Engineering, Third Edition. I've noticed in some earlier discussions
>that the text in some portions of the Third Edition is extensively
>revised in places, and recall one instance where it looked like he had
>significantly changed the meaning of what he was saying. So I recommend
>that anyone getting this book look for the latest edition available. I
>don't know how many editions there were altogether. I know Terman wrote
>at least one other big seller, but don't recall the title. I'm sure
>someone else will provide it.
>
>Roy Lewallen, W7EL
>
>Jerry wrote:
>> So what is the exact name and edition of Terman's book are you guys always
>> referring to? I would be interested in obtaining a copy...Thanks for any
>> info..
>>
>> regards, Jerry..-n6jp--

4th Edition (1955) was the last edition. The title was changed to
Electronics and Radio Engineering from the earlier "Radio
Engineering."

It was a widely used text and reference and can be found without too
much trouble in a good used bookstore. I see that I paid $7.50 for the
copy that I have, including the dust jacket.

Terman's Radio Engineering Handbook is also worth adding the library.

Jack K8ZOA

4420. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 13:29:00 UTC
From: gmz79@aol.comnospam
Message-ID: <20021210082900.24960.00010531@mb-mp.aol.com>
Source record: 129458

#5 to the x-former,period
Greg Z
to thine own sound be true

4421. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 14:54:31 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <senJ9.32428$5P3.2403435@newsfeed.slurp.net>
Source record: 129460
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

RE: Post below

A very good directional coupler, correctly adjusted, can have upwards of 60dB directivity. If it is designed to correctly sample both the electric and magnetic fields in the transmission line on which it is mounted, its output sample will not change with the location of the coupler along the line, for a given forward power in the line.

Using such a coupler on a transmission line conducting X watts of power into a perfectly matched load Z will show a 60dB difference in output voltage when looking at the forward and reflected energy (by rotating the coupler 180 degrees and refitting it to the line).

Now remove the termination from the line. The coupler shows the same level of forward signal as it did before, but the reflected sample is equal to it. I have confirmed this for myself while doing RF pulse measurements of TV broadcast antennas.

Now, if reflected power is imaginary -- how is this reality explained?

Richard Fry

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message news:at2lrc$n6n$2@knossos.btinternet.com...
> It is the notion of reflected power itself which causes the confusion. Best
> to erase it from the imagination and return to square one. All can be
> clarified without resorting to black magic. KISS. There's no point in
> trying to solve problems which didn't exist before reflected power entered
> the vocabulary.

4422. Re: What kind of antenna grease/lubricant for antenna assembly

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 15:19:46 UTC
From: richardharrison@webtv.net
Message-ID: <17813-3DF60612-698@storefull-2314.public.lawson.webtv.net>
Source record: 129465

Crazy George wrote:
"Use the torque specs correctly, and you can stay out of trouble."

As usual, George is right.

Had a contractor erecting a tower in Minnesota. Bolt heads were showering upon the ground around the tower. The bolt boxes said "Made in Venezuela". So, I rented torque wrenches for the tower crew and after 40 years the tower still stands.

I would not characterize the Venezuelan bolt problem as a myth. Neither would I characterize stainless steel hardware siezures a myth. Like the Venezuelan bolts, if not over-tightened, this is useable, but still problematic. I`ve chiseled stainless apart to show how it`s done.

Best regards, Richard Harrison, KB5WZI

4423. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 15:20:00 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF60620.9010804@ieee.org>
Source record: 129461

Mark Keith wrote:

> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>Doesn't a half-wave vertical have the same gain relationship to a
>>quarter-wave vertical as a full-wave dipole has to a half-wave
>>dipole, i.e. about 2 dB?
>
> Not according to modeling. A 2m 1/4 wave GP with sloping radials at 40
> ft vs a 1/2 wave at 40 ft is about .3 db difference with the 1/2 wave
> having the slight edge.

:-) Sloping radials not allowed when comparing a 1/4WL vertical with
a 1/2WL vertical because sloping radials make it longer than 1/4WL.
If you slope the radials enough, you have a 1/2WL vertical. To get a
valid comparison between a 1/4WL vertical and a 1/2WL vertical,
the ground plane must be horizontal.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4424. Re: Need advice for 433.92 reception antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 15:33:59 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <HPnJ9.14033$y14.1243203@news1.east.cox.net>
Source record: 129462

"jim" <kmic5@hotmail.com> wrote in message
news:da7d3410.0212100125.57b2a78f@posting.google.com...
> It doesn't seem like I need custom product made for this kind of
> reception. The current whip antenna I have is about 6" and I've seen
> some online that are a few feet. How much improvement might I see with
> a taller whip antenna? How about with a Yagi type antenna?
>
>

Define what you need better. If you go to a yagi, it will be directional.
Since these devices are used in vehicles, are you leaving it to us to
assume that a directional antenna aimed perpendicular to the road
will do the job to monitor passing vehicles, or do you need a full 360
degree
circular coverage area?

If you need a directional antenna, get a hold of a Tessco catalog, and look
for a good fiberglas panel antenna, or radome enclosed short yagi.
Railroads use flat panels for reading car tags on passing cars.

Peter

4425. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 15:40:35 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF60AF3.6020601@ieee.org>
Source record: 129463

Mark Keith wrote:
> Close, but the side of the loop next to the dipole is part of the
> dipole. A few months ago, he agreed this picture matched the antenna
> he had in mind.
> http://web.wt.net/~nm5k/loopole.jpg

If that is to scale, it sure looks like a delta match. I'm wondering
if the loop were made big enough to have an effect on the radiation
pattern, what would that effect be?
--
cheers, CAM http://www.qsl.net/w5dxp

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-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4426. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 15:43:26 UTC
From: "Thomas C. Sefranek" <WA1RHP@ARRL.net>
Message-ID: <yYnJ9.580$eQ3.82663@newsread1.prod.itd.earthlink.net>
Source record: 129464
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

Andy Cowley <andy.cowley@uwe.ac.uk> wrote in message
news:3DF5DE29.34254E93@uwe.ac.uk...
> Zoran Brlecic wrote:
> >
> > >
> > > GPS receivers only receive signals, they do not transmit them.
> >
> > It doesn't matter. Every receiver has some sort of an oscillator which,
> > albeit very weak, *could* interfere with the aircraft's sensitive
> > navigation and control systems. Especially if every passenger fired up
> > one or more of those.
>
> And the steward(esse)s can't use a microwave oven? You are joking
> aren't you? If the navigation and control systems really were that
> subject to RFI then they would never be allowed near an aircraft.
> I suppose you believe that the satellite phones have been constructed
> magically without oscillators? And the dozens of other transmitters,
> receivers, transponders etc. are all built without oscillators?
> Complete bullshit, Zoran. It's just another stupid bureaucratic
> rule, without rhyme or reason.

Sorry Andy!

The microwave oven is tested for emissions, and by the way YOU wouldn't want
a microwave that had any serious leakage right?

The on board satellite phones again have been rigorously tested for use in
the aircraft.

So we shut down the laptops, cell phones, and other toys at critical times.

I'm in full agreement on the rules, as I notice the pilots these days have
too much
dependence on the nav. toys, and too little common sense.

Stupid bureaucratic rules are more like: I'm shining my light in your
window and your
not allowed to look at it. (We can't listen to cell phones!)

> vy 73
>
> Andy, M3ABC
>

4427. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 15:52:14 UTC
From: richardharrison@webtv.net
Message-ID: <28967-3DF60DAE-234@storefull-2312.public.lawson.webtv.net>
Source record: 129467

Richard Fry wrote:
"Now, if reflected power is imaginary-- how is reality explained?"

Yes. And why would a trough/slotted line demonstrate standing waves?

Some people seem to delight in proclaiming "faults" of the Bird wattmeter when it is hailed as the standard among field instruments. The Bird shows reflected power and satisfies most of its users.

Best regards, Richard Harrison, KB5WZI

4428. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 15:54:00 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF60E18.2010602@ieee.org>
Source record: 129466

Gene Fuller wrote:
> There is NOTHING OBSERVABLE that can distinguish between your model and
> Steve's model. You may choose to invoke interference if you wish, but
> that is simply an internal calculational detail.

If there is NOTHING OBSERVABLE that can distinguish between my model
and Steve's model and assuming there is nothing wrong with either
model, my model shows that all the reflected power is 100% re-reflected.

How then, can Steve assert the following as absolute truth? "A total re-
reflection of the re-reflected voltage, current, and power does not
occur at the match point." Don't you think he should have prefaced that
statement with, "The particular model that I am using indicates that a
total re-reflection of the re-reflected voltage, current, and power does
not occur at the match point. Other valid models may indicate the
opposite result."?
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4429. Re: SWR Calculations/In-line Wattmeters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 16:21:35 UTC
From: richardharrison@webtv.net
Message-ID: <28968-3DF6148F-88@storefull-2312.public.lawson.webtv.net>
Source record: 129369

Richard Fry wrote:
"---not because the load has changed from the reference load in the factory"

If the wattmeter is to be inserted and removed at higher VHF, better accuracy is obtained by making the Bird part of a 1/2-wave coax jumper. The length of the Bird body may otherwise affect readings and performance, if the load is mismatched.

Best regards, Richard Harrison, KB5WZI

4430. Re: why we can able to talk on mobile while we are on a plane whenm...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 16:39:52 UTC
From: richardharrison@webtv.net
Message-ID: <28966-3DF618D8-674@storefull-2312.public.lawson.webtv.net>
Source record: 129468

Andy, M3ABC wrote:
"Its just another stupid bureaucratic rule, without rhyme or reason."

Except during take-offs and landings, some airlines say, "Go ahead and use your laptops, etc. Just don`t use cell phones and other devices which could cause interference."

Interference is with the profits GTE-Verizon and others might share from your call from that phone handset in one of those seatbacks.

Best regards, Richard Harrison, KB5WZI

4431. Re: why we can able to talk on mobile....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 16:57:19 UTC
From: richardharrison@webtv.net
Message-ID: <28968-3DF61CEF-89@storefull-2312.public.lawson.webtv.net>
Source record: 129371

Harold Burton wrote:
"It`s not just the propellant powder burning off as in the small cartridges."

Yes, but propellant cartridges, capable of sending a huge projectile 16 miles or so, can blow asunder a very strong confined space container all by themselves.

Best regards, Richard Harrison, KB5WZI

4432. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 17:08:13 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <on7cvucnnne2nn9tj3fmh0lepf4d10vrnk@4ax.com>
Source record: 129370
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

On Tue, 10 Dec 2002 12:29:23 GMT, Andy Cowley <andy.cowley@uwe.ac.uk>
wrote:

>Zoran Brlecic wrote:
>>
>> >
>> > GPS receivers only receive signals, they do not transmit them.
>>
>> It doesn't matter. Every receiver has some sort of an oscillator which,
>> albeit very weak, *could* interfere with the aircraft's sensitive
>> navigation and control systems. Especially if every passenger fired up
>> one or more of those.
>
>And the steward(esse)s can't use a microwave oven? You are joking
>aren't you? If the navigation and control systems really were that
>subject to RFI then they would never be allowed near an aircraft.
>I suppose you believe that the satellite phones have been constructed
>magically without oscillators? And the dozens of other transmitters,
>receivers, transponders etc. are all built without oscillators?
>Complete bullshit, Zoran. It's just another stupid bureaucratic
>rule, without rhyme or reason.
>
>
>vy 73
>
>Andy, M3ABC

Actually, it does have rhyme and reason. Current cell technology
would be swamped over a wide area by a few cell users in airplanes.
The MOST IMPORTANT reason is that the use of cell phones would
interefere with the revenue stream from the "Flite-Fones".

Russ

4433. Re: SWR Calculations/In-line Wattmeters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 17:20:03 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <ds7cvuspi6j68e4dfohnd2sca3r7krg1sr@4ax.com>
Source record: 129372

On Tue, 10 Dec 2002 06:42:30 -0600, "Richard Fry" <rfry@adams.net>
wrote:

|But the Bird won't be as accurate as the factory-set power metering in the
|tx, regardless of the final load Z. That is the reason why the two meters
|don't read the same into the customer's load, not because the load has
|changed from the reference load in the factory.
|
|The Bird also would not match the tx metering if the Bird was in place
|during final test and cal of the tx into that optimized load at the factory.

Okay, I'm not just trying to be argumentative, I don't sell Bird watt meters for a living, nor do I believe they are anything more than a rugged field instrument but...

I don't know what scheme you had for power monitoring so I cannot comment on its accuracy in the fact of varying load Z, but just because the Bird spec is 5% of full-scale doesn't necessarily mean that it is 5% in error. It could be right on.

What you had was a correlation problem between vendor and customer. Believe me, I understand those. When I was the responsible engineer for the Phoenix missile transmitter, which used 16 matched Impatt diodes in the final stage, we wound up building and calibrating several "identical" waveguide test fixtures used to characterized the diodes. We sent one to each of our diode suppliers and required that each diode be characterized in the supplied fixture. We also specified the other test equipment and supplied the software to control it. Only then did we remove the correlation problem.

Calibration of the fixtures was non-trivial too since the oscillator was constructed of 1/4 height X-band waveguide which required some effort to calibrate and in those days, the company Metrology lab was a 400-mile plane ride away.

4434. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 17:30:14 UTC
From: Bill M <"\\exray\"\"\"@n-o- .caribe.net>">
Message-ID: <uvc93a97fulh27@corp.supernews.com>
Source record: 129373
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

Russ wrote:

> Actually, it does have rhyme and reason. Current cell technology
> would be swamped over a wide area by a few cell users in airplanes.
> The MOST IMPORTANT reason is that the use of cell phones would
> interefere with the revenue stream from the "Flite-Fones".
>
> Russ

Are these still in use? Every plane I have been on in the past year has
had the service "discontinued".
-BM

4435. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 17:49:05 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <1cacvucd8aa0c5gt5f2h86k0q2vgco2h3i@4ax.com>
Source record: 129375

On Mon, 9 Dec 2002 22:51:25 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>If only 90 watts is available from the transmitter, only 9 watts will be
>reflected. 10% of the incident power is reflected, as I understand the
>problem. That isolator isn`t "green" because it is an enemy of
>recycling.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

And the SWR meter is between the isolator and the load?

73's
Richard Clark, KB7QHC

4436. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 17:52:01 UTC
From: "Chris Kirby"
Message-ID: <raacvu86ubu3c1dgmnmjitofn18re8l9h1@4ax.com>
Source record: 129376
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

Andy Cowley <andy.cowley@uwe.ac.uk> wrote:

>Zoran Brlecic wrote:
>>
>> >
>> > GPS receivers only receive signals, they do not transmit them.
>>
>> It doesn't matter. Every receiver has some sort of an oscillator which,
>> albeit very weak, *could* interfere with the aircraft's sensitive
>> navigation and control systems. Especially if every passenger fired up
>> one or more of those.
>
>And the steward(esse)s can't use a microwave oven? You are joking
>aren't you? If the navigation and control systems really were that
>subject to RFI then they would never be allowed near an aircraft.
>I suppose you believe that the satellite phones have been constructed
>magically without oscillators? And the dozens of other transmitters,
>receivers, transponders etc. are all built without oscillators?
>Complete bullshit, Zoran. It's just another stupid bureaucratic
>rule, without rhyme or reason.

And the pilots ALWAYS switch their own mobiles off. (NOT)

Chris

4437. Re: Was Terman infallable?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 17:52:53 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <gfacvus8a1fc0tstdbf9ima3dvg7dl5rrm@4ax.com>
Source record: 129377

On Tue, 10 Dec 2002 09:40:35 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Mark Keith wrote:
>> Close, but the side of the loop next to the dipole is part of the
>> dipole. A few months ago, he agreed this picture matched the antenna
>> he had in mind.
>> http://web.wt.net/~nm5k/loopole.jpg
>
Hi Cecil,

>If that is to scale, it sure looks like a delta match.
A delta match with the Capacitor splitting the radiator?
>I'm wondering
>if the loop were made big enough to have an effect on the radiation
>pattern, what would that effect be?

As Richard pointed out long ago, depends what plane the loop is in and
how big it is.

73's
Richard Clark, KB7QHC

4438. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 17:53:23 UTC
From: "Chris Kirby"
Message-ID: <leacvuksun5542k5oeha92l5lkvdk619ol@4ax.com>
Source record: 129378
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

Russ wrote:

>The MOST IMPORTANT reason is that the use of cell phones would
>interefere with the revenue stream from the "Flite-Fones".

Same applies to the use of mobiles in hospitals. (Except for
Flite-Fones, read Pay-phones)

Chris

4439. Re: Oh Calamity ! SOS !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 17:55:34 UTC
From: KB9TMP <kb9tmp@juno.com>
Message-ID: <uvcakiub4dk93@corp.supernews.com>
Source record: 129379

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:at3df9$ko3$1@helle.btinternet.com...
> Here in the civilised UK I am not bothered with rattlers, skunks or
mountain
> lions and do not have a gun licence.
>
> But a domestic (jumping) wolf spider, about 3/8" across, before I could
find
> something to swot him with, has just disappeared into a ventilation hole
on
> my 14" video monitor.
>
> It's taken my mind right off reflected power.
>
> I've done an unsuccessful Google.
>
> What's the breakdown volts of a dry, 3/8", electrocuted, wolf spider?
>
>

Well that depends on which type of wolf spider it is.
The breakdown voltage on a red wolf spider is very
high, as it is with the gray wolf spider. Now if it happens
to be a werewolf spider then you have some serious
problems because they won't die unless shot with a
tiny silver bullet! ;^)

--
'73' From KB9TMP
"The secret of life is honesty and fair dealing,
if you can fake that, you've got it made."
-Groucho Marx

4440. Re: Very Interesting Indeed...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 17:57:55 UTC
From: KB9TMP <kb9tmp@juno.com>
Message-ID: <uvcaounve9gace@corp.supernews.com>
Source record: 129374

"OK1SIP" <remove_ok1sip@atlas.cz> wrote in message
news:5f5159fa.0212092335.5b47798e@posting.google.com...
> "Mark Hall" <mark.hall34@verizon.net> wrote in message
news:<nGGI9.14419$903.4990@nwrddc02.gnilink.net>...
> > How about a fertilizer that increases ground conductivity to the point
> > where radials aren't required? Now that would be "Very Interesting
> > Indeed..."
> >
> > '73 KI4Z
>
> I am going to put a cheapo CB antenna into my flowerbed in spring.
> After intensive fertilizing and watering, I expect to have a vertical
> for 80 m in autumn. And if breeding is successful, I'll have a
> vertical array for 136 kHz in 2005 ! 8-))
>
> BR from Ivan

If you get it to grow into the 136 kHz array, could
I get a clipping off of it to start my own antenna plant?

--
'73' From KB9TMP
"The secret of life is honesty and fair dealing,
if you can fake that, you've got it made."
-Groucho Marx

4441. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 18:05:15 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <6tacvu07q83kn4vkihl4q8i50ni8en47ki@4ax.com>
Source record: 129380

On 10 Dec 2002 02:20:31 -0800, richie_r1ch@hotmail.com (richie_r1ch)
wrote:

>Here's a little diagram I typed up of what my antenna looks like. I'm
>new to this so I dont know what most parts of antenna's are called so
>bare with me on this.
>
>1. ---------------|X|-----------------
> |X|
>2. -----------|X|-----------
>3. -----|X|-----
> |X|
>4. -----|X|-----
> | |
>5. ---| |---
>6. ---| |---
>7. ---|_|---
>
>The "| |" is the frame where all the elements are sitting on. The
>"X's" are 2 aluminum rods kinda like a coathanger that go in X
>patterns and it connects elements #'s 1,2, and 4. The third element is
>attached to the bottom of the frame while the others are all on the
>top. I have noticed that on the fourth element where the two rods are
>connected to, on the bottom of the frame there are two screws that
>look something like knobs, so you could take them off without a
>scredriver, Im thinking this could probably be a possible connection
>place. Also, in the middle on the side of the frame there are two
>nuts, but I think these are meant to screw on the pole.
>
>Right now I'm running two 75ohm cables from the antenna. One to my TV
>and the other to my TV card on my PC. I havent bought the transformers
>yet, I just stripped the wires and have been connecting them to
>different spots. Is there a noticeable signal loss by just stripping
>the cable and just wrapping the wires around an element rather than
>using a transformer? I've connected just the middle part of the wire
>to the 7th element and could get better reception on UHF channels than
>I can when I connect both wires "one to each rod that forms the X
>pattern". But VHF reception is better this way.
>
>where would you recommend the best connection place to be based on the
>little diagram?

Hi OM,

From your diagram it appears you have two interleaved antennas, one for UHF (without X connections) and one for VHF (the x connections) and that the UHF couples into the VHF for getting signal back to your TV. It may also be high/low band VHF (for channels up to 13).

> on the bottom of the frame there are two screws that
>look something like knobs

Connect the transformer there.

If the higher frequency antenna does not couple into the other, larger one, then there should be a corresponding pair of bolts located on element 5 for a second, higher band connection (needs transformer too).

73's
Richard Clark, KB7QHC

4442. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 18:09:02 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <sbbcvu0sg2a508chd91j2a6f7vl0d0fk3g@4ax.com>
Source record: 129381

On 10 Dec 2002 02:38:03 -0800, richie_r1ch@hotmail.com (richie_r1ch)
wrote:

>How would I go about cleaning the antenna? Cause it's very filthy,
>It's dark gray already and from scrubbing it I can tell that I should
>be getting better reception cause the difference is big. I wanted to
>take it apart and clean each element individually but there are not
>held together by the usual screws. They are connected to the frame by
>something that looks like thumb tacks and and then a little circle
>with a border at the bottom. How do I take these off?

Don't go there, antennas work fine as long as the
dirt/film/what-have-you does not hang like spanghum moss.

>
>I'm already getting great reception on all my local channels but I
>want to get much better reception from the stations in San Diego. I'm
>in the Southern part of the Los Angeles county about 100 miles away.
>Sometimes I can get some of them with a little snow but watchable. And
>last night I was actually recieving stations from what I believe were
>coming from Northern Mexico. Because they are not listed in any of the
>sorrounding counties. And I can also get a channel 3 also in Spanish
>but very poor reception. I thought this channel was reserved for other
>purposes here? The reception on all these got far worse in the
>morning.
>
>I'm hoping I can get better reception on these channels with the
>proper connection and some cleaning. From my roof I don't see any big
>buildings or trees blocking my view so I think I could do better.
>
>thanks for replying

Hi OM,

Sounds like you are at the limit of your antenna's gain if you have
made the proper connections. The real key to success is height after
that.

73's
Richard Clark, KB7QHC

4443. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 18:38:48 UTC
From: gaschafer@attbi.com
Message-ID: <3df634bf.4885066@netnews.attbi.com>
Source record: 129382

On Tue, 10 Dec 2002 00:26:02 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Gary Schafer wrote:
>> If you disconnect the line from the watt meter then where is the power
>> going to flow? The meter will read 100 watts forward and 100 watts
>> reflected with very little voltage actually driving it. Is
>> there still 100 watts forward and 100 watts reflected?
>
>Of course, if the coax between the transmitter and wattmeter is short,
>that's what's known as same-cycle reflection. The reflection model
>still works perfectly, i.e. it is mathematically consistent.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>
>

So If you have a wall outlet in your home with nothing plugged into it
(open circuit) does that mean that there is power flowing to the open
outlet and then being reflected back into the line?

73
Gary K4FMX

4444. Re: Which moblie cb radio antenna with big coil is the best

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 18:43:46 UTC
From: Allodoxaphobia <nobody@jonz.net>
Message-ID: <slrnavcdf1.gfs.nobody@animas.frontier.net>
Source record: 129383

On 9 Dec 2002 20:20:49 -0800, DJboutit hath writ:

> I still want to get a good one because I like the way they look.

Gaw--aw--ley, Jim Bob. That sure be my #1 criteria for an antenna.

Jonesy W3DHJ

4445. Re: AM Transmitter Project

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 19:04:38 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <JZycnQs6MKqmp2ugXTWcqw@comcast.com>
Source record: 129384

Assuming you are high level modulating the output stage, you pick the turns ratio of the transformer so that the Peak audio voltage is equal to the DC supply voltage of the RF amplifier. So, if the RF stage runs at 12 VDC, and the audio amp puts out 12 V p-p, you need a 2:1 voltage step up for 100% modulation. Except for very low power, Couple of things to watch for: For this example the RF transistor would have to be rated for 24 VDC. You probably can not 100% collector modulate a transistor amp. You might have to apply modulation to both the output stage and the driver. You might be able to use modem telephone coupling transformer, the kind that has a DC current rating (usually about 100 ma)
Tam/WB2TT
"JOEL N. STEENIS" <azkb7ryu@aztec.asu.edu> wrote in message
news:asujvmsdv1@news.asu.edu...
>
>
> Hello,
>
> I am working on an extremely low power (<<1W input) AM transmitter and
have
> encountered several difficulties including how to determine the required
> impedance of the modulation transformer.
>
> Any comments or suggestions on this or anything else (operating point etc)
> would be appreciated.
>
> Thanks.
>
> Joel
> --
>
>
>
>

4446. Re: AM Peak Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 19:29:05 UTC
From: richardharrison@webtv.net
Message-ID: <2451-3DF64081-744@storefull-2315.public.lawson.webtv.net>
Source record: 129385

Gary Schafer wrote:
"What I was referring to was "peak envelope power" which is 4 times the carrier power with 100% modulation."

Looks like that to me too. There have been some really funny numbers posted.

RMS volts times RMS amps = Average Power
Sq, rt. of 2 (rms volts) = Peak Volts
Sq. rt. of 2 (rms amps) = Peak Amps
Thus: 2 (rms volts x rms amps) = Peak Power

Peak Envelope Power is different. For 100% AM, the peak carrier is alternately doubled and reduced to zero. Doubling the voltage also doubles the amps. Thus the carrier multiplier is 4 times the average carrier power to produce peak envelope power.

Best regards, Richard Harrison, KB5WZI

4447. Re: Antenna switch

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 20:08:31 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92E090F8EE153michalkunyahoocom@128.233.3.7>
Source record: 129386

Really? So the price is high just because the switch is designed for high
power? What does high power mean? Transmitting?
Does anybody know about a switch for just a scanner?

4448. Re: AM Transmitter Project

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 20:14:32 UTC
From: richardharrison@webtv.net
Message-ID: <28966-3DF64B28-707@storefull-2312.public.lawson.webtv.net>
Source record: 129390

Tarmo Tammaru wrote:
"So, if the RF stage runs at 12 VDC, and the audio amp puts out 12Vp-p, you need a 2:1 voltage step up for 100% modulation."

Agree you ned 12 volts peak to double the carrier volts, and -12 volts to reduce the carrier to zero. However, a push-pull transformer will have nearly 24 volts peak to peak on its primary at maximum output using 12 volts on the collectors.

The collector to collector impedance of its load is:
Rc-c = 2Ec/Po

The collectors are switched from Ec to zero alternately on each 1/2 of the cycle and in push-pull, these 1/2-cycles are phased to aid. We have a 12V peak positive alternation and a 12V peak negative alternation. Added together, this is 24V peak to peak.

Best regards, Richard Harrison, KB5WZI

4449. Re: Oh Calamity ! SOS !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 20:21:03 UTC
From: dplatt@radagast.org
Message-ID: <uvcj5fgv0n4eb4@corp.supernews.com>
Source record: 129387

In article <uvcakiub4dk93@corp.supernews.com>, KB9TMP <kb9tmp@juno.com> wrote:

>Well that depends on which type of wolf spider it is.
>The breakdown voltage on a red wolf spider is very
>high, as it is with the gray wolf spider. Now if it happens
>to be a werewolf spider then you have some serious
>problems because they won't die unless shot with a
>tiny silver bullet! ;^)

Would electrocution on a set of surface-mount components having
silver-plated contact do the trick?

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4450. Re: Need advice for 433.92 reception antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 20:41:59 UTC
From: kmic5@hotmail.com
Message-ID: <da7d3410.0212101241.7932af68@posting.google.com>
Source record: 129388

I was mistaken about mentioning a Yagi; I just found out that these
are directional.

It looks like a co-linear would be best for my application. Know of
any good suppliers (preferably online)?

" Uncle Peter" <radioconnectionNO@cox.netSPAM> wrote in message
news:<HPnJ9.14033$y14.1243203@news1.east.cox.net>...
> "jim" <kmic5@hotmail.com> wrote in message
> news:da7d3410.0212100125.57b2a78f@posting.google.com...
> > It doesn't seem like I need custom product made for this kind of
> > reception. The current whip antenna I have is about 6" and I've seen
> > some online that are a few feet. How much improvement might I see with
> > a taller whip antenna? How about with a Yagi type antenna?
> >
> >
>
> Define what you need better. If you go to a yagi, it will be directional.
> Since these devices are used in vehicles, are you leaving it to us to
> **assume** that a directional antenna aimed perpendicular to the road
> will do the job to monitor passing vehicles, or do you need a full 360
> degree
> circular coverage area?
>
> If you need a directional antenna, get a hold of a Tessco catalog, and look
> for a good fiberglas panel antenna, or radome enclosed short yagi.
> Railroads use flat panels for reading car tags on passing cars.
>
> Peter

4451. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 20:50:05 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212101250.1fe051d6@posting.google.com>
Source record: 129391

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
> :-) Sloping radials not allowed when comparing a 1/4WL vertical with
> a 1/2WL vertical because sloping radials make it longer than 1/4WL.
> If you slope the radials enough, you have a 1/2WL vertical. To get a
> valid comparison between a 1/4WL vertical and a 1/2WL vertical,
> the ground plane must be horizontal.

I still don't think the difference would amount to more than a half db
, even with flat radials. In the real world, I never use flat radials.
The sloping radials give a better impedance match, and like you say a
very small amount of gain. But the increase in gain is likely
unnoticeable on the air. MK

4452. Re: AM Transmitter Project

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 20:57:22 UTC
From: L Caracciolo <larryc@northwest.com>
Message-ID: <3DF65532.8DC0AB94@northwest.com>
Source record: 129389

He could use a Jfet (no?) and be able to get a larger voltage swing. But, his project is very low power, so what matters peak voltage swing? He could also modulate the emitter thru another transistor (MOS, JEFT or bipolar), or series modulate the collector voltage in a similar manner.

larryc
.....

Tarmo Tammaru wrote:

> Assuming you are high level modulating the output stage, you pick the turns
> ratio of the transformer so that the Peak audio voltage is equal to the DC
> supply voltage of the RF amplifier. So, if the RF stage runs at 12 VDC, and
> the audio amp puts out 12 V p-p, you need a 2:1 voltage step up for 100%
> modulation. Except for very low power, Couple of things to watch for: For
> this example the RF transistor would have to be rated for 24 VDC. You
> probably can not 100% collector modulate a transistor amp. You might have to
> apply modulation to both the output stage and the driver. You might be able
> to use modem telephone coupling transformer, the kind that has a DC current
> rating (usually about 100 ma)
> Tam/WB2TT
> "JOEL N. STEENIS" <azkb7ryu@aztec.asu.edu> wrote in message
> news:asujvmsdv1@news.asu.edu...
> >
> >
> > Hello,
> >
> > I am working on an extremely low power (<<1W input) AM transmitter and
> have
> > encountered several difficulties including how to determine the required
> > impedance of the modulation transformer.
> >
> > Any comments or suggestions on this or anything else (operating point etc)
> > would be appreciated.
> >
> > Thanks.
> >
> > Joel
> > --
> >
> >
> >
> >

4453. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 21:08:22 UTC
From: richie_r1ch@hotmail.com
Message-ID: <6ec14ee2.0212101308.1fb3ef0f@posting.google.com>
Source record: 129392

gmz79@aol.comnospam (greg z) wrote in message
news:<20021210082900.24960.00010531@mb-mp.aol.com>...
> #5 to the x-former,period
> Greg Z
> to thine own sound be true

how do I connect it there? There are no screws there. And it is just a single element. Do I just peel the ends off of the transformer and tape them there? Do I connect both ends since #4 is only a single element.

thanks again

4454. Re: why we can able to talk on mobile while we are on a planewhenm...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 21:09:39 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF65813.5060707@ieee.org>
Source record: 129393

Richard Harrison wrote:
> Andy, M3ABC wrote:
> "Its just another stupid bureaucratic rule, without rhyme or reason."
>
> Except during take-offs and landings, some airlines say, "Go ahead and
> use your laptops, etc. Just don`t use cell phones and other devices
> which could cause interference."

It is unfortunate that the cell phone calls made by the victims of
9-11 from the planes didn't cause some useful interference.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4455. Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 21:12:05 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <srlcvugaockpho29l2u9m27acrqog59b1p@4ax.com>
Source record: 129394
Cross-posted to: rec.radio.amateur.antenna,uk.radio.amateur

On Tue, 10 Dec 2002 13:54:41 -0500, "Michael A. Terrell"
<terrell@mfi.net> wrote:

>Russ wrote:
>>
>> On Tue, 10 Dec 2002 13:08:34 -0500, "Michael A. Terrell"
>> <terrell@mfi.net> wrote:
>>
>> >Russ wrote:
>> >>
>> >> On Mon, 09 Dec 2002 20:37:25 -0500, "Michael A. Terrell"
>> >> <terrell@mfi.net> wrote:
>> >>
>> >> >"J. McLaughlin" wrote:
>> >> >>
>> >> >> I doubt that the cartridge ("shell") exploded. An un restrained
>> >> >> cartridge might ignite, pop the bullet, and burn the powder. Once the
>> >> >> bullet pops, all hope of an explosion ends.
>> >> >> Batteries (some) can explode because they do not have a means to
>> >> >> vent prior to exploding and because of very low internal resistance.
>> >> >> Many years ago, a Hg based, sealed battery (used for voltage reference
>> >> >> at the time) was shorted and did explode.
>> >> >> The (very) old Tarzan movie where cartridges are thrown into a fire
>> >> >> and "shoot" all over the place, can not happen.
>> >> >> Other reasons exist not to carry cartridges loose. 73 Mac N8TT
>> >> >>
>> >> >> --
>> >> >> J. Mc Laughlin - Michigan USA
>> >> >> Home: JCM@Power-Net.Net
>> >> >>
>> >> >> > > >
>> >> >> >
>> >> >> > Actually, a loose battery connection can spark and cause an
>> >> >> > explosion. Just like a spare battery in your pocket can short out on
>> >> >> > coins. Or, until it was stopped, some cops carried some spare bullets
>> >> >> > in their pants pocket. A nice clean brass shell would quickly
>> >> >> discharge
>> >> >> > the battery, or blow the internal wiring, but a tarnished, or slightly
>> >> >> > corroded shell had higher resistance and heated up, burning their leg,
>> >> >> > or in one case, the shell exploded, and the guy almost lost his leg.
>> >> >> The
>> >> >> > problem is, other people would be killed, rather than just the idiot

>> >> >> > with a junk phone. That is why all wiring to and around a gas pump
>> >> >> has
>> >> >> > to be in rigid conduit with gas tight fittings.
>> >> >> > --
>> >> >> >
>> >> >> >
>> >> >> > Michael A. Terrell
>> >> >> > Central Florida
>> >> >
>> >> > I lived in Middletown Ohio and it was a local cop either in
>> >> >Middletown or one of the small towns nearby. I was servicing two way
>> >> >radios for some departments, and they all pulled everyone in to lecture
>> >> >them about the danger. They told me that the battery made contact to
>> >> >the side and the bottom, heating the base enough to set it off. Some of
>> >> >those old '70s radios had a battery almost half the size of the radio.
>> >> >
>> >> > I have also seen and head ammo going off in a house fire One cold
>> >> >winter morning I was heading to the kitchen and the house three doors
>> >> >down had a couple flames coming out a window so I called the fire
>> >> >department. In the few minutes it took them to get there ammo stored in
>> >> >the basement started going off, with some bullets coming up out of the
>> >> >broken basement windows towards the street, and out the side windows.
>> >> >Since they couldn't get close enough to it to spray water directly into
>> >> >the windows they sprayed water up in an arc towards the windows from the
>> >> >road to slow it down while thousands of rounds went off. It turned out
>> >> >the people living there were part of a motorcycle gang and another gang
>> >> >set the place on fire while they were gone for a few days.
>> >>
>> >> Sorry to call bullshit on this, but unless the rounds were restrained
>> >> in the chamber of a firearm, it is likely that the cartridge case will
>> >> travel further than the bullet. Simple physics, what has more mass,
>> >> the bullet or the case? My .30-06 handloads use a 168 grain (~7000
>> >> grains to an advp. pound) and the cases weigh around 140 grains. A
>> >> typical 9mm pistol cartridge uses a 124 gr bullet and I'd guess the
>> >> case weighs around 50 to 70 grains (I don't weigh the pistol cases).
>> >> Major General Julian Hatcher was for decades the US Army's small arms
>> >> expert. He wrote about this in his "Notebook" series. Further, a
>> >> firefighter did actual lab tests a few years ago, burning various
>> >> types of ammunition and examining the penetration of the various
>> >> components. His conclusion was that ordinary firefighters turnout
>> >> gears is more than adequate protection from burning ammunition. This
>> >> was written up in "The American Rifleman" within the last few years.
>> >> You may have heard rounds "cooking off" in firearms in the fire, but
>> >> not burning ammo.
>> >>
>> >> Russ
>> >
>> > Whatever you say. They found half melted bullets on the ground the
>> >next day, and the ammo was sitting in steel ammo boxes standing up, and
>> >the boxes had been laying on a shelf against the wall. Yeah, I guess it

>> >is easier for the casing to go through a steel ammo can and a concrete
>> >wall, isn't it. You weren't there. I was, I saw the evidence. I knew
>> >half the guys on the fire department and the inspector. This was almost
>> >30 years ago. Go sell it somewhere else. Next you'll try to tell me
>> >that gasoline doesn't explode when exposed to open flame.
>> >
>> > As far as "rounds "cooking off" in firearms in the fire", they didn't
>> >find any guns, the people had taken them with them when they left. Do
>> >you think?
>>
>> Ok, but I'll believe Hatcher's research and the research done by a
>> firefighter/engineering technician before I'll believe hearsay.
>>
>> Russ
>
> Whatever pleases your small mind. Good bye.

Well Skippy, the ball is in your court. I've given two published references and so far all you have given is arm-waving, hearsay and bullshit. In fact, you sound exactly like a politician! I've also trimmed the groups so as to annoy the minimum number of Usenet subscribers.

Russ

4456. Re: "Even Saddam Hussein gets Spam..."

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 21:39:30 UTC
From: Minuteman <Ready.willing.able@nem.til.glo>
Message-ID: <at5mujfqd1@news.chatlink.com>
Source record: 129395

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:b8mvtuopk479q5fdiql4u0lha6n8l7iid3@4ax.com...

> We here in the Pacific
> NW are particularly close on that issue too. Especially when the DC
> area snipers were traced back here to where they stole that gun.
>
> From one store alone, the source of the sniper's rifle, more than 300
> guns were stolen THIS YEAR! And that is up from about 250 FOR LAST
> YEAR! Responsibility and the Conservatives seem alien counter
> cultures.

How the does this guy stay in business. Most guns stores I visited only have
about 300 guns

The problem in the Pacific NW was the guy was a Black Male and the cops
would not screw with him because they
are afraid of another Rodney King incident. I have been a cop and know what
is being told to the troops.
A Chief of Police does not and I REPEAT does not allow their people to screw
with minorities
for that particular reason.

While on the DC sniper (I served my time in law enforcement in the DC metro
area) noticed
how after they DID NOT get their PROFILED WHITE MALE 30 to 40 YEARS OLD,
This entire
story was flushed down the media toilet after it was learned they had
captured an Islamic Black Male and
his juvenile side kick from the Caribbean. This is will all be settled
quietly with the jerk wad getting
life somewhere and his ties to the Nation of Islam and their anti-Christen /
Jewish / anyone else who
does not agree with them BS will swept under the carpet.

The real issue is not Israel, UK, US or any other country, this issue Islam
is using our values against us
with the Liberal, peace hoping flower Childs of my generation helping them
along. Their goal is
total world domination, they are the Nazis of the 21st century. They hate
you, me and anyone else
who is different from them and not of their pure religious beliefs they hold
near and dear to their
AK-47s. Instead of chanting Heil Hitler they chant Praise Allah as they
prepare to kill, just listen
to the video tapes of the people involved.

>

> death to terrorists!
> Richard Clark, KB7QHC

No argument here, in fact the large number of people owning guns in this country I would bet has minimized
their attacks.

Finally I salute the woman in Georgia who reported what she heard. No will one know if she stoppped
a potential attack. The Islamic soldiers are taught to lie when caught and many of us did not believe
their BS for one minute.

4457. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 21:39:31 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF65F13.1010804@ieee.org>
Source record: 129396

Gary Schafer wrote:
> So If you have a wall outlet in your home with nothing plugged into it
> (open circuit) does that mean that there is power flowing to the open
> outlet and then being reflected back into the line?

Since the voltage changes from from +160V to -160V and back 60
times per second, there *is* current flowing in the wires. I
assume that if you had a 3106 mile long low impedance transmission
line, you would get one wavelength of standing waves.
--
cheers, CAM http://www.qsl.net/w5dxp

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4458. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 21:44:16 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF66030.3030506@ieee.org>
Source record: 129397

Mark Keith wrote:
> I still don't think the difference would amount to more than a half db
> , even with flat radials. In the real world, I never use flat radials.
> The sloping radials give a better impedance match, and like you say a
> very small amount of gain. But the increase in gain is likely
> unnoticeable on the air. MK

Quadrupling your power is only one S-unit. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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4459. Re: Antenna switch

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 22:01:54 UTC
From: Bill M <"\\exray\"\"\"@n-o- .caribe.net>">
Message-ID: <uvcp0pc97at38e@corp.supernews.com>
Source record: 129398

Michalkun wrote:
> Really? So the price is high just because the switch is designed for high
> power? What does high power mean? Transmitting?
> Does anybody know about a switch for just a scanner?
>
>

It seems simple enough to design/build one with switching diodes
controlled by the LPT1 port. Have you checked TenTec to see if they
have such an offering for their radios? I understand there are some
Yahoo user groups for the WinRadio and TenTecs,,,maybe somebody there
has a better suggestion
-Bill

4460. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 22:06:45 UTC
From: Zoran Brlecic <WA7AA@attbi.com>
Message-ID: <3DF6656C.9080606@attbi.com>
Source record: 129399
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

Andy Cowley wrote:

>>>GPS receivers only receive signals, they do not transmit them.
>>
>>It doesn't matter. Every receiver has some sort of an oscillator which,
>>albeit very weak, *could* interfere with the aircraft's sensitive
>>navigation and control systems. Especially if every passenger fired up
>>one or more of those.
>
>
> And the steward(esse)s can't use a microwave oven? You are joking
> aren't you? If the navigation and control systems really were that
> subject to RFI then they would never be allowed near an aircraft.
> I suppose you believe that the satellite phones have been constructed
> magically without oscillators? And the dozens of other transmitters,
> receivers, transponders etc. are all built without oscillators?
> Complete bullshit, Zoran. It's just another stupid bureaucratic
> rule, without rhyme or reason.

Whatever gets you through the night, Andy. There is a big difference between the *controlled* RF environment in the aircraft (i.e. all the aircraft RF producing equipment that has been tested, shielded and verified) and the *uncontrolled* RF environment (i.e. dozens of cellphones transmitting at once, dozens of pagers, two-way radios, etc.).

I, for one, would much rather have every passenger turn off the damn phone than having so much as a 1% increased risk of crashing.

About ten years ago, I witnessed a funny thing when one of the co-workers whipped out his cellphone and started jabbering - I had a board on my test bench and as he was speaking about 5-6 feet away, one of the 1N4148 diodes on the board literally lit up and burned. The board was not even powered up at the time, btw.

There is a good reason most of the hospitals don't allow cells in the building or at least in the vicinity of the intensive care units. Or is that just another bureaucratic conspiracy?

73 ... Zoran WA7AA

4461. Re: Oh Calamity ! SOS !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 22:15:23 UTC
From: marvin rosen <raghead@worldnet.att.net>
Message-ID: <%HtJ9.53913$hK4.4631201@bgtnsc05-news.ops.worldnet.att.net>
Source record: 129400

Having a spider in your video monitor will
de-bug your monitor!
> Here in the civilised UK I am not bothered with rattlers, skunks or
mountain
> lions and do not have a gun licence.
>
> But a domestic (jumping) wolf spider, about 3/8" across, before I could
find
> something to swot him with, has just disappeared into a ventilation hole
on
> my 14" video monitor.
>
> It's taken my mind right off reflected power.
>
> I've done an unsuccessful Google.
>
> What's the breakdown volts of a dry, 3/8", electrocuted, wolf spider?
>
>

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Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.423 / Virus Database: 238 - Release Date: 11/25/02

4462. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 22:15:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvcpsqkd6tr0f@corp.supernews.com>
Source record: 129401

OC_CAM's Razor wrote:

> Quadrupling your power is only one S-unit. :-)

Hm, on my Icom 730, it'll take you from S1 almost to S5, from S2 to well above S5, or about S6 to S8. So it's more like 2 to 4 S-units.

Roy Lewallen, W7EL

4463. Hi-Q or Hamstick mobile ant ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 22:29:57 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0212101429.2875f81d@posting.google.com>
Source record: 129402

Hi,

I am interesting in mobile antenna for my rabbit (golf) car.
Could someone explain me what is (are) the difference between the
antennas sold by Hi-Q vs e.g. Hamstick ?
The first company sales antennas 10 times more expensive than the
second one ... For me both products are similar even if the first
looks more robust, but the first are rate at $300, the second $30 or
so... That makes a first big difference. Are there others, technically
speaking ?

Thanks
Thierry
http://www.astrosurf.com/lombry

4464. Re: Gain of the A99

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 22:43:16 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF66E04.3060201@ieee.org>
Source record: 129403

Roy Lewallen wrote:

> OC_CAM's Razor wrote:
>> Quadrupling your power is only one S-unit. :-)
>
> Hm, on my Icom 730, it'll take you from S1 almost to S5, from S2 to well
> above S5, or about S6 to S8. So it's more like 2 to 4 S-units.

Of course, I was referring to the proverbial "standard" S-unit. :-)
The other night, when I switched from 100W to 400W, the ham I was
QSOing with said, "Wow, you jumped 20 dB!" Who needs a kilowatt? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4465. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-10 23:46:20 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3df67d89$0$8504$ba620e4c@news.skynet.be>
Source record: 129404
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

I have seen here in Belgium a sticker prohibiting cellphones on an hospital's door ... and a cellular relay, pager antennas and the like on the roof of the building.

73 de ON5MJ - Jacques

4466. Re: Oh Calamity ! SOS !

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 00:02:57 UTC
From: KB9TMP <kb9tmp@juno.com>
Message-ID: <uvd05ebgcer277@corp.supernews.com>
Source record: 129405

"Dave Platt" <dplatt@radagast.org> wrote in message
news:uvcj5fgv0n4eb4@corp.supernews.com...
> In article <uvcakiub4dk93@corp.supernews.com>, KB9TMP <kb9tmp@juno.com>
wrote:
>
> >Well that depends on which type of wolf spider it is.
> >The breakdown voltage on a red wolf spider is very
> >high, as it is with the gray wolf spider. Now if it happens
> >to be a werewolf spider then you have some serious
> >problems because they won't die unless shot with a
> >tiny silver bullet! ;^)
>
> Would electrocution on a set of surface-mount components having
> silver-plated contact do the trick?

It just might! Let's hope so at least.

--
'73' From KB9TMP
"The secret of life is honesty and fair dealing,
if you can fake that, you've got it made."
-Groucho Marx

>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

4467. Re: Hi-Q or Hamstick mobile ant ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 00:25:18 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <mGvJ9.69495$bq3.32783@news.bellsouth.net>
Source record: 129406

Thierry <lombryt@hotmail.com> wrote in message
news:db35a0c.0212101429.2875f81d@posting.google.com...
> Hi,
>
> I am interesting in mobile antenna for my rabbit (golf) car.
> Could someone explain me what is (are) the difference between the
> antennas sold by Hi-Q vs e.g. Hamstick ?
> The first company sales antennas 10 times more expensive than the
> second one ... For me both products are similar even if the first
> looks more robust, but the first are rate at $300, the second $30 or
> so... That makes a first big difference. Are there others, technically
> speaking ?
>
> Thanks
> Thierry
> http://www.astrosurf.com/lombry

Like so many things it depends on what level of performance you are seeking.
The hamstick positively stinks on any frequency below 20 Meters. And if you
are going to operate on all bands,
your best bet is the screwdriver. After all, by the time you buy enough
'sticks to cover 8 bands, you will have spent as much for less performance.
Then you'd have to consider where you'd store
all those sticks in a VW.

Jerry
K4KWH

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Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.423 / Virus Database: 238 - Release Date: 11/25/02

4468. Re: AM Transmitter Project

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 00:56:17 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <0oadnX7sX8foNWugXTWcrg@comcast.com>
Source record: 129411

Yeah, I was going to suggest that too. Audio modulate the voltage regulator
that feeds the output stage, then no transformer. Set the quiscent value of
the DC out to 1/2 the normal value. Even simpler might be to feed the DC to
the output stage through an emitter follower that has its base biased at 6
or 7 volts, with 10 V p-p audio capacitively coupled on top of that.
Tam/WB2TT
"L Caracciolo" <larryc@northwest.com> wrote in message
news:3DF65532.8DC0AB94@northwest.com...
> He could use a Jfet (no?) and be able to get a larger voltage swing. But,
his
> project is very low power, so what matters peak voltage swing? He could
also
> modulate the emitter thru another transistor (MOS, JEFT or bipolar), or
series
> modulate the collector voltage in a similar manner.
>
> larryc
> ....
>
> Tarmo Tammaru wrote:
>
> > Assuming you are high level modulating the output stage, you pick the
turns
> > ratio of the transformer so that the Peak audio voltage is equal to the
DC
> > supply voltage of the RF amplifier. So, if the RF stage runs at 12 VDC,
and
> > the audio amp puts out 12 V p-p, you need a 2:1 voltage step up for 100%
> > modulation. Except for very low power, Couple of things to watch for:
For
> > this example the RF transistor would have to be rated for 24 VDC. You
> > probably can not 100% collector modulate a transistor amp. You might
have to
> > apply modulation to both the output stage and the driver. You might be
able
> > to use modem telephone coupling transformer, the kind that has a DC
current
> > rating (usually about 100 ma)
> > Tam/WB2TT
> > "JOEL N. STEENIS" <azkb7ryu@aztec.asu.edu> wrote in message
> > news:asujvmsdv1@news.asu.edu...
> > >
> > >
> > > Hello,

> > >
> > > I am working on an extremely low power (<<1W input) AM transmitter and
> > have
> > > encountered several difficulties including how to determine the
required
> > > impedance of the modulation transformer.
> > >
> > > Any comments or suggestions on this or anything else (operating point
etc)
> > > would be appreciated.
> > >
> > > Thanks.
> > >
> > > Joel
> > > --
> > >
> > >
> > >
> > >
>

4469. Re: Which moblie cb radio antenna with big coil is the best

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 01:34:14 UTC
From: JWheeler <kd5bcu@yahoo.com>
Message-ID: <uvd5gndljmvu8f@corp.supernews.com>
Source record: 129407

"Allodoxaphobia" <nobody@jonz.net> wrote in message
news:slrnavcdf1.gfs.nobody@animas.frontier.net...
> On 9 Dec 2002 20:20:49 -0800, DJboutit hath writ:
>
> > I still want to get a good one because I like the way they look.
>
> Gaw--aw--ley, Jim Bob. That sure be my #1 criteria for an antenna.
>
> Jonesy W3DHJ

Well, Marvin... why don't you offer some advice instead of showing what a
jerk you can be? Have a nice day now.

JWheeler

4470. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 02:18:25 UTC
From: Brewman <jcrossno@noname-brew-meister.com>
Message-ID: <OHKgDtLoCHA.1220@cpimsnntpa03>
Source record: 129408
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

I read an article once a few years ago on this subject... The article discussed a test done by the FAA where they "fried" a plane with microwaves, and other stuff, with all the electronics on the plane active. While one of us would have been cooked, the electronics continued to work fine. There are a couple of reasons why they don't want phones used on the planes. First, it would take away from the income generated by the flight-fones. Secondly, as this was also tested, if you were to use your phone on the plane, while the hardware from the providers would be able to keep up with you, switching from cell to cell, etc., the software would not be able to keep up with you and their billing would be hosed.

No flames please.. Just repeating what I read...

"Russ" <carlzomer@hotmail.com> wrote in message
news:on7cvucnnne2nn9tj3fmh0lepf4d10vrnk@4ax.com...
> On Tue, 10 Dec 2002 12:29:23 GMT, Andy Cowley <andy.cowley@uwe.ac.uk>
> wrote:
>
> >Zoran Brlecic wrote:
> >>
> >> >
> >> > GPS receivers only receive signals, they do not transmit them.
> >>
> >> It doesn't matter. Every receiver has some sort of an oscillator which,
> >> albeit very weak, *could* interfere with the aircraft's sensitive
> >> navigation and control systems. Especially if every passenger fired up
> >> one or more of those.
> >>
> >And the steward(esse)s can't use a microwave oven? You are joking
> >aren't you? If the navigation and control systems really were that
> >subject to RFI then they would never be allowed near an aircraft.
> >I suppose you believe that the satellite phones have been constructed
> >magically without oscillators? And the dozens of other transmitters,
> >receivers, transponders etc. are all built without oscillators?
> >Complete bullshit, Zoran. It's just another stupid bureaucratic
> >rule, without rhyme or reason.
> >
> >
> >vy 73
> >
> >Andy, M3ABC
>
> Actually, it does have rhyme and reason. Current cell technology

> would be swamped over a wide area by a few cell users in airplanes.
> The MOST IMPORTANT reason is that the use of cell phones would
> interefere with the revenue stream from the "Flite-Fones".
>
> Russ

4471. Re: Need advice for 433.92 reception antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 02:30:48 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <srxJ9.15582$y14.1372365@news1.east.cox.net>
Source record: 129409

www.tessco.com

"jim" <kmic5@hotmail.com> wrote in message
news:da7d3410.0212101241.7932af68@posting.google.com...
> I was mistaken about mentioning a Yagi; I just found out that these
> are directional.
>
> It looks like a co-linear would be best for my application. Know of
> any good suppliers (preferably online)?
>
>
> " Uncle Peter" <radioconnectionNO@cox.netSPAM> wrote in message
news:<HPnJ9.14033$y14.1243203@news1.east.cox.net>...
> > "jim" <kmic5@hotmail.com> wrote in message
> > news:da7d3410.0212100125.57b2a78f@posting.google.com...
> > > It doesn't seem like I need custom product made for this kind of
> > > reception. The current whip antenna I have is about 6" and I've seen
> > > some online that are a few feet. How much improvement might I see with
> > > a taller whip antenna? How about with a Yagi type antenna?
> > >
> > >
> >
> > Define what you need better. If you go to a yagi, it will be
directional.
> > Since these devices are used in vehicles, are you leaving it to us to
> > **assume** that a directional antenna aimed perpendicular to the road
> > will do the job to monitor passing vehicles, or do you need a full 360
> > degree
> > circular coverage area?
> >
> > If you need a directional antenna, get a hold of a Tessco catalog, and
look
> > for a good fiberglas panel antenna, or radome enclosed short yagi.
> > Railroads use flat panels for reading car tags on passing cars.
> >
> > Peter

4472. Re: Which moblie cb radio antenna with big coil is the best

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 02:37:20 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF6A4E0.6C13C925@cwis.net>
Source record: 129410

DJ,
I'd say pick the one that makes the lea$t dent
in your back pocket. There really isn't any
advantaqe to an antenna with a big coil(s) over one
that has no coil(s). The coil doesn't give you any
advantage other than a shorter antenna. Won't handle
any more power, reach further, or any of the other
nonsense you hear about them. Also, if an antenna
works well with high power, why would it ~not~ work
well with low power? It's your money so you spend
it how ever you want to, but I certainly wouldn't
waste mine on any of the antennas you listed.
'Doc

4473. SWR Bridge component values-Henry 2K4

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 03:02:21 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3df6b0dc_2@news1.prserv.net>
Source record: 129412
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,sci.electronics.repair

The used 2K4 I bought suffered some kind of disaster inside the little aluminum box containing the bridge. Someone probably tried to put a kilowatt into an open circuit. The inside of the box is blackened, and spotted with fine particles of molten metal. As a repair, some previous owner simply removed most of what was in there, leaving the toroid around the center conductor, and the two .01 caps on the RCA jacks. I have a corrected copy of the schematic, and would like to obtain a few pieces of additional data before I tackle rebuilding it.

The drawing (SWR Bridge, December 1970, By: WCK) shows a unterminated winding (L80) grounded on one end, and apparently wrapped around the center conductor. There was a short piece of magnet wire still stuck inside the insulator in the center of the toroid, and I suspect this must have been a simple Faraday shield. How many turns, and what spacing was it? And, how many turns in the main coupling winding around the toroid (L81)? I count 64 remaining on this one, which may be close to the original number.

Second, some component values. The trimmers (C80 & 87) connected to the center conductor were probably in the range of 7 pf. Is that correct?

Are the RF chokes (incorrectly shown as C82 & 84) 0.5 or 1 mH, or something else?

The SWR bridge shown in many ARRL Antenna Handbooks looks very similar to what is shown on the Henry schematic, so I am using it for some guidance. Has anyone else compared the two?

All constructive comments appreciated, and yes, Reg, I know measuring SWR doesn't tell you much. I just want it for a relative output indicator.

--
Crazy George
Remove NO and SPAM from return address: to make: munsch at attglobal dot net

4474. FS Triax Switchs/Cept Generators

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 03:35:11 UTC
From: tonys2@aol.com
Message-ID: <20021210223511.21256.00000064@mb-cu.aol.com>
Source record: 129413

Generates CCITT G703/704 standard outputs
Several avail unused (Mfg R-Group)
Details upon request
Priced for quick turnover
Tony
Alex va
tonyS2@aol.com
also avail
Triax swiches 2in 2 out Remote control Matrix SYS

4475. MFJ v Autek v Palomar v HB R-X NB ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 03:49:24 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <uvddebsb3gj706@corp.supernews.com>
Source record: 129414

I'm in the process of retiring (modest budget) and hoping to do some HF and VLF antenna work. I have a Palomar R-X noise bridge that has served me reasonably well but it doesn't go below 1 mHz. I've used a borrowed MFJ 259 and Autek RF-1 but not enough experience to make a decision other than they sure are convenient. I've reviewed the Dec. 87 QST article on a Lab-Style RX noise bridge as well as the Aug. 89 QST on Improving R-X noise bridges by using a binocular ferrite core for the transformer, the "heart" of the noise bridge. I'm looking for intelligent opinions on what I should consider for my last or next to last antenna bridge. Right now I'm sort of leaning to building the Lab-Style in Dec 87 QST substituting the binocular ferrite core but I'm not sure what it'll take to get the instrument down to VLF and maybe LF, maybe two instruments or a band switch.. Have there been any articles elsewhere that I should find and read? Are there commercial instruments perhaps by HP or others that might be on the used market and should be considered?

73
hank wd5jfr

4476. Re: where do you connect a cable on an old Yagi antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 03:50:24 UTC
From: gmz79@aol.comnospam
Message-ID: <20021210225024.11194.00000309@mb-fh.aol.com>
Source record: 129415

>ow do I connect it there? There are no screws there. And it is just a
>single element. Do I just peel the ends off of the transformer and
>tape them there? Do I connect both ends since #4 is only a single
>element.
>
>thanks again
>

Sorry I mean't #4, missread your diagram, put the leads from the matching
x-former on them screw terms,put a F conn on the end of your coax and screw it
into the x-former. you can use a splitter
on the house end to split between your tv and tv card.Be aware that the
splitter will impart some signal loss. Also note that the antenna you describe
is not a very high gain unit,so dont expect any miricles
Greg Z
to thine own sound be true

4477. Re: AM Transmitter Project

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 04:26:13 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <F7zJ9.15933$y14.1411195@news1.east.cox.net>
Source record: 129416

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:0oadnX7sX8foNWugXTWcrg@comcast.com...
> Yeah, I was going to suggest that too. Audio modulate the voltage
regulator
> that feeds the output stage, then no transformer. Set the quiscent value
of
> the DC out to 1/2 the normal value. Even simpler might be to feed the DC
to
> the output stage through an emitter follower that has its base biased at 6
> or 7 volts, with 10 V p-p audio capacitively coupled on top of that.
> Tam/WB2TT
> "

Just use a decently sized audio IC to directly drive the PA stage collector.
For maximum modulation depth, the driver stage should have some audio
applied to the collector as well.

Pete k1zjh

4478. Re: Wideband magnetic loop please look

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 07:14:48 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0212102314.10c27802@posting.google.com>
Source record: 129417

"Maarten Hagg" <maartenmiriam@hetnet.nl> wrote in message
news:<at4j0rskh1@reader11.wxs.nl>...
> Dear readers,
>
> Please look at :
>
> http://home.hetnet.nl/~maartenmiriam/index.html
>
> Any comment is welcome.
>
> Maarten Hagg

10 kHz - 30 MHz with NO tuning ? What about selectivity ? What about
cross-modulation from broadcast LW, MW and SW stations ? Receiving
only ?!

BR from Ivan

4479. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 09:38:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uve1t3il1ka2b0@corp.supernews.com>
Source record: 129418

Sorry for the delay -- I've been really busy and wanted to read this carefully before responding.

The following comments assume sinusoidal steady state conditions.

I don't disagree with any of the examples Steve presented here. However, I also didn't get a clear idea of "what happens to the reflected power" from the analysis. To me, forward and reverse (or as some like to say, reflected) power are average (D.C.) quantities calculated from forward and reflected voltage and current waves. The actual instantaneous power at any point along the line is a combination of a D.C. term and a sine wave at twice the frequency of V and I. While well known principles can be rigorously applied to the analysis of traveling voltage and current waves (as Steve has done), I have yet to see equations or even definitions describing such things as reflection coefficient for a reflected power wave. Forward and reverse power are useful concepts for some purposes, but more care should be used in assigning attributes to them that they don't have.

I'd like to present the following hypotheses for comment. All are restricted to single frequency steady state conditions and time-invariant components. (That is, component values can't change with time.)

For the first one, I'll define a "source circuit" as either a voltage source with series resistance or current source with a shunt resistance. For this circuit:

1. The power dissipation in the source resistance can be predicted completely with no other knowledge than the voltage of the voltage source or current of the current source, the value of the source resistance, and the impedance seen by the source circuit.

Comment: A given impedance as seen by the source circuit can be made from any number of combinations of transmission line and load, with very widely varying calculated values of forward and reverse power. But as long as each presents the same impedance to the source circuit, all will result in exactly the same amount of source dissipation.

For the second hypothesis, I'll relieve all restrictions on the source circuit, and allow it to be any kind of circuit, linear or nonlinear, including a transmitter. You can even include an isolator within the source circuit or among the external components if you'd like:

2. If any combination of transmission line and load (or any other combination of linear components) is connected to the source circuit, resulting in an impedance Z1 seen by the source circuit (with Z1 being

V/I at the source circuit output), then any other combination of transmission line and load (or any other combination of linear components) presenting the same impedance Z1 can be connected to the source circuit and will result in the same dissipation within the source circuit. And, for that matter, in the same power delivered by the source circuit to the external components. Connected transmission lines can have any amount of reverse power, as long as the impedance seen by the source circuit is Z1.

Comment: Even for this much less restrictive condition, the source dissipation is uniquely determined by the impedance seen by the source circuit.

3. No single-frequency steady state source circuit can distinguish between a simple lumped component load and a load connected to a transmission line having any amount of forward or reverse power, as long as both present the same impedance to the source circuit.

Does anyone disagree with any of these hypotheses? If so, please present a numerical example showing it to be false.

If you accept these hypotheses, there's a strict one-to-one correspondence between the impedance seen by the source circuit and the source circuit's dissipation (and delivered power), but there's no such correspondence between the reverse power on a connected transmission line and the source circuit's dissipation. (I'll give a nod to Wes' observation that there is such a correspondence if you restrict the transmission line impedance to the single value that an isolator is designed for, and include the isolator in the source circuit. This combination has a dissipation that is directly proportional to the reflected power because of the way the isolator disspation varies with load impedance. However, hypothesis 2 still applies to this source circuit.)

Roy Lewallen, W7EL

VE9SRB wrote:
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:uv3dlhn98sn8d5@corp.supernews.com...
>
>
>
> Hi Roy,
>
> In an earlier post you made the following statement:
>
>
> "The notion that reverse power is absorbed or dissipated by the load is a
> myth, based on misunderstanding of the phenomena involved. It's very
> easy to provide any number of examples to show it's simply not true."
>
>
> I think you need to be careful in how you make this statement and in what

> you imply by it. I think a more correct statement would be that the
> internal source power dissipation does not necessarily increase (or
> decrease) by an amount equal to the reflected power. In implying that
> reflected power is "not absorbed" or "not dissipated" by the source, many
> people presume that the only thing that can happen to the reflected power is
> that it must be re-reflected. If the source impedance is equal to the Zo of
> the transmission line, there will simply be no re-reflected power (voltage
> and current).
>
> So, what happens to the reflected power? The problem in understanding the
> answer to this question is that we try to perform the transmission
> line/circuit analysis with power. The transmission line/circuit analysis
> must be performed with voltage and current.
>
> The more technically correct statement in this problem is that the reflected
> voltage and current are delivered to the source. The internal source power
> dissipation is simply a function of the forward and rearward voltage and
> current developed across the source impedance.
>
> Consider a simple example.
>
> Let's assume that we have a 100 V source with a 50 ohm source impedance
> connected to a 50 ohm, 1 WL line terminated with a 50 ohm load. The steady
> state voltage across the source impedance is 50 V, the steady state voltage
> across the load is 50 V. The power dissipated in the source impedance and
> the load is 50 W. (I'm using |V|^2/R to determine P) The forward power in
> the line is 50 W and the reflected power is 0 W.
>
> Now let's consider the situation where the line is terminated with an
> impedance such that the reflected power is 50 W. What is the total power
> dissipated in the souce impedance? The power dissipated in the source
> impedance will range between 0 W and 200 W as direct function of the phase
> of the reflected voltage and current.
>
> The total voltage delivered to the source impedance will be equal to V =
> Vforward - Vreflected. Vforward is the forward voltage delivered to the
> source impedance by the 100 V source voltage. Vforward will always be 50 V
> in this example. Vreflected is simply the reflected voltage.
>
> Specific Examples:
>
> V = Vforward - Vreflected
>
> Short Circuit Termination: Vreflected = -50V; V = 50 - (-50) = 100 V. P =
> 200 W
>
> Open Circuit Termination: Vreflected = +50V; V = 50 - (+50) = 0 V. P = 0 W
>
> Load = 0 + j50 ohms: Vreflected = +j50; V = 50 - (+j50) = 50 - j 50. P =
> 100 W

>
> We could come up with a number of examples to demonstrate these concepts.
>
> If the source impedance is equal to Zo, there will be no re-reflected power.
> However, stating that the reflected "power" is delivered to the source is
> only valid in understanding that it is the reflected voltage and current
> that are delivered to the source.
>
> The steady state power dissipated in the source is simply a direct function
> of the steady state forward and rearward voltages developed in the source.
>
> In all cases, the levels of reflected voltage and current (therefore power)
> at the source are a direction of the source impedance reflection
> coefficient.
>
> A similar analysis works if the source impedance is not equal to 50 ohms.
>
> Steve VE9SRB
>
>
>

4480. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 09:47:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uve2deekvnkg0d@corp.supernews.com>
Source record: 129319

Thanks for the clarification. I agree:

If you connect a source having an isolator at the output to a transmission line whose impedance is equal to the isolator's impedance, the dissipation of the isolator's resistor is equal to the reverse power on the line.

Of course, you can substitute a lumped network with no forward or reverse power for the transmission line/load and get the same dissipation, as long as the Z looking into the lumped combination equals the Z looking into the line. Or you can connect lines of different impedances and different reverse powers and get the same dissipation as long as the Z is the same looking into the line.

But it's not enough just to have a good source match -- a voltage source/series resistor or current source/shunt resistor can have just as good of a source match as the isolator, but it doesn't have this same relationship between reverse power and source dissipation that the isolator does. The HF generators I've seen fit this model pretty well.

Roy Lewallen, W7EL

Wes Stewart wrote:
> On Fri, 06 Dec 2002 16:51:33 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> |Ok, here's a case for consideration.
>
> Now you're changing the parameters.
>
> You asked, "If only sometimes, what are the necessary conditions?"
>
> I replied,
>
> "A = B
>
> Where:
>
> A is a generator with a good source match (Zg). For example Richard
> Fry's solid-state amplifier with 20 dB return loss. In transmitters
> this is often accomplished by using quadrature couplers with the
> fourth port port terminated in a matched load, or at microwave,
> isolators (terminated circulators). Reflected power is "dumped" into
> this load. (But you know that <g>)
>
> B is a transmission line with Zo equal to Zg."

>
> I wasn't considering any other cases, only the above.
>
> I've spent the last two days getting ready for and attending a ham
> swapfest and while I was away I see a lot of other answers to what
> follows. I'm just going to standby and watch <g>
>

4481. Re: SWR Bridge component values-Henry 2K4

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 12:31:32 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <at7b73$l1k$1@helle.btinternet.com>
Source record: 129320
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,sci.electronics.repair

"Crazy George"

> All constructive comments appreciated, and yes, Reg, I know measuring SWR
> doesn't tell you much. I just want it for a relative output indicator.
>
============================

George, why not use a pea lamp ?

For design of the so-called SWR meter, download (yes, right first time)
program SWRMETER.

==========================
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========================

4482. Re: SWR Calculations/In-line Wattmeters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 13:15:54 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <fUGJ9.35762$5P3.2619924@newsfeed.slurp.net>
Source record: 129321

RE: Below

True for the Bird (and similar) metering systems, and this is another reason to trust the tx metering. Most newer transmitters use an electromagnetic directional coupler, whose output voltage is not affected by its location along the line regardless of the load match.

Richard Fry

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:28968-3DF6148F-88@storefull-2312.public.lawson.webtv.net...
> Richard Fry wrote:
> "---not because the load has changed from the reference load in the
> factory"
>
> If the wattmeter is to be inserted and removed at higher VHF, better
> accuracy is obtained by making the Bird part of a 1/2-wave coax jumper.
> The length of the Bird body may otherwise affect readings and
> performance, if the load is mismatched.
>
> Best regards, Richard Harrison, KB5WZI
>

4483. Imaginary Reflections?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 13:44:09 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <YiHJ9.35771$5P3.2624141@newsfeed.slurp.net>
Source record: 129322

RE: Earlier post below...

If reflections are imaginary -- how is the following reality explained?

A very good directional coupler, correctly adjusted, can have upwards of 60dB directivity. If it is designed to correctly sample both the electric and magnetic fields in the transmission line on which it is mounted, its output sample will not change with the location of the coupler along the line regardless of load SWR, for a given source power in the line.

Using such a coupler on a transmission line conducting X watts of power into a perfectly matched load Z will show ~ 60dB difference in output voltage when looking at the forward and reflected energy (by rotating the coupler 180 degrees and refitting it to the line).

Remove the termination from the line. The reflected sample now equals the forward sample, less line loss to the load and back. I have confirmed this for myself while doing RF pulse measurements of TV broadcast transmitting antenna systems.

Richard Fry

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message news:at2lrc$n6n$2@knossos.btinternet.com...
> It is the notion of reflected power itself which causes the confusion.
>Best to erase it from the imagination and return to square one.
>All can be clarified without resorting to black magic. KISS. There's
>no point in trying to solve problems which didn't exist before reflect-
>ed power entered the vocabulary.

4484. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 14:36:35 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF74D73.90505@ieee.org>
Source record: 129323

Roy Lewallen wrote:
> Does anyone disagree with any of these hypotheses?

They sound good to me, Roy. And I would add, if the same results
are not obtained using the reflection model, then the user of
the reflection model does not fully understand the reflection
model and has made one or more errors when trying to use it.
In particular, one cannot analyze the system half-way using
the reflection model and then switch in mid-analysis to the
circuit model. One way to avoid that pitfall is to install
a piece of transmission line between a source point and a
virtual impedance. The Z0 of that transmission line must be
such that the SWR is 1:1 yielding a Z0-match point that can
be analyzed using the reflection model as I have presented
it in my rebuttal to Dr. Best's QEX article. Once the reflections
are eliminated by a Z0-match, the analysis becomes much less
difficult. And installing a piece of transmission line with an
SWR of 1:1 (no reflections) doesn't change anything except the
phase of the forward wave which is the initial reference point
anyway and therefore doesn't matter in the analysis.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4485. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 14:56:17 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <lmlJ9.55556$hK4.4720376@bgtnsc05-news.ops.worldnet.att.net>
Source record: 129324

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:uve1t3il1ka2b0@corp.supernews.com...

> I don't disagree with any of the examples Steve presented here. However,
> I also didn't get a clear idea of "what happens to the reflected power"
> from the analysis. To me, forward and reverse (or as some like to say,
> reflected) power are average (D.C.) quantities calculated from forward
> and reflected voltage and current waves. The actual instantaneous power
> at any point along the line is a combination of a D.C. term and a sine
> wave at twice the frequency of V and I. While well known principles can
> be rigorously applied to the analysis of traveling voltage and current
> waves (as Steve has done), I have yet to see equations or even
> definitions describing such things as reflection coefficient for a
> reflected power wave. Forward and reverse power are useful concepts for
> some purposes, but more care should be used in assigning attributes to
> them that they don't have.
>

It must be understood that in the steady state, the power carried by a wave and the power dissipated in a load are the net result of a continuing process of multiple wave reflections and re-reflections within system. The level of voltage and current (and therefore power) reflection and re-reflection at either end of the line are a direct function of the terminating impedance (reflection coefficient) at the end of the line.

In the line itself, understanding "what happens to power?" (in the steady state) is an easy question. The total forward power is determined from the total forward voltage and current. The total rearward (reflected) power is determined from the total rearward voltage and current. The net power delivered to the line is simply equal to the total forward power minus the total rearward power (after making some assumptions about Zo).

Understanding "what happens to reflected power at the source?" (in the steady state) is not an easy question and cannot be answered by looking at the total forward and rearward power *in the line*. An analysis of steady state power *in the line* does not provide a valid understanding of the relationships between source power, reflected power, re-reflected power and total forward power. The analysis must be performed using voltage and current and it must be recognized that net power is simply determined from the voltage and current interactions within the system.

Let's consider this further with a very simple example below:

> I'd like to present the following hypotheses for comment. All are
> restricted to single frequency steady state conditions and
> time-invariant components. (That is, component values can't change with

> time.)
>
> For the first one, I'll define a "source circuit" as either a voltage
> source with series resistance or current source with a shunt resistance.
> For this circuit:
>
> 1. The power dissipation in the source resistance can be predicted
> completely with no other knowledge than the voltage of the voltage
> source or current of the current source, the value of the source
> resistance, and the impedance seen by the source circuit.
>

Absolutely correct, with the understanding that the steady state impedance
seen by the source is a direct function of the reflected wave(s) created by
the load at the end of the line. Without these reflections, the source
would only see an impedance equal to the Zo of the line.

> Comment: A given impedance as seen by the source circuit can be made
> from any number of combinations of transmission line and load, with very
> widely varying calculated values of forward and reverse power. But as
> long as each presents the same impedance to the source circuit, all will
> result in exactly the same amount of source dissipation.
>
> For the second hypothesis, I'll relieve all restrictions on the source
> circuit, and allow it to be any kind of circuit, linear or nonlinear,
> including a transmitter. You can even include an isolator within the
> source circuit or among the external components if you'd like:
>
> 2. If any combination of transmission line and load (or any other
> combination of linear components) is connected to the source circuit,
> resulting in an impedance Z1 seen by the source circuit (with Z1 being
> V/I at the source circuit output), then any other combination of
> transmission line and load (or any other combination of linear
> components) presenting the same impedance Z1 can be connected to the
> source circuit and will result in the same dissipation within the source
> circuit. And, for that matter, in the same power delivered by the source
> circuit to the external components. Connected transmission lines can
> have any amount of reverse power, as long as the impedance seen by the
> source circuit is Z1.
>

Correct. From the source or transmitter's perspective, it is only the
steady state Z, seen at the transmitter output that matters.

> Comment: Even for this much less restrictive condition, the source
> dissipation is uniquely determined by the impedance seen by the source
> circuit.
>
> 3. No single-frequency steady state source circuit can distinguish
> between a simple lumped component load and a load connected to a
> transmission line having any amount of forward or reverse power, as long

> as both present the same impedance to the source circuit.
>
> Does anyone disagree with any of these hypotheses? If so, please present
> a numerical example showing it to be false.
>
> If you accept these hypotheses, there's a strict one-to-one
> correspondence between the impedance seen by the source circuit and the
> source circuit's dissipation (and delivered power), but there's no such
> correspondence between the reverse power on a connected transmission
> line and the source circuit's dissipation. > >

There may not be a "one-to-one" relationship between the reflected (rearward) power and the source power dissipation but there is a "one-to-one" relationship between the rearward voltage and current and the source power dissipation. In recognizing that the reflected voltage and current play a direct part in determining the Z seen by the source, they must play a part in determining the source power dissipation.

Lets look at the simple example.

Here's the TL circuit:

100 V -- Zs = 25 ohms -- 1 WL 50 ohm line -- 25 ohm load

Using simple transmission line theory we can remove the line and draw the equivalent circuit:

100 V -- Zs = 25 ohms -- 25 ohm load

Steady state conditions:

The voltage across each 25 ohm load is 50 V. The total (steady state) power dissipation in each of the 25 ohm loads is 100 W. Total power dissipation in the system (in the steady state) is equal to 200 W.

Steady state condition in the line:

Pforward = 112.5 W; Prearward = 12.5 w; Pdelivered to the line (load) = 100 W.

Now let's look at how the 12.5 W of reflected (rearward) power affects the source and steady state conditions:

To understand the effects of reflected voltage and current (power), we must first look at what happens when the source is first energized. When first energized, the source sees a transmission line with an impedance equal to 50 ohms. The INITIAL forward voltage in the source impedance is equal to +33.33 V and the INITIAL forward voltage in the line is +66.66 V. The INITIAL forward power in the source impedance is 44.44 W and the INITIAL forward power in the line is 88.89 W. The total power dissipation in the initial state is 133.33 W. If the line were infinitely long or terminated in a 50 ohm load (no reflections) these INITIAL conditions would not change. This is an important point for all the people that believe reflected power (reflected voltage and current) is not "real".

Lets see how the reflected wave(s) create the steady state conditions. As the system transitions from the initial to the steady state, there is a process of reflection and re-reflection within the line between the source and the load. To analyze the effect of this process, let's jump to the steady state and consider the 12.5 W of steady state reflected power and how it affects the INITIAL conditions. (We could analyze the effect of each individual reflection but this would take too long)

The 12.5 W of rearward power is associated with a rearward voltage equal to -25V. At the source, this rearward voltage (wave) sees a terminating impedance of 25 ohms and a reflection coefficient equal to -.3333. The total re-reflected voltage is equal to +8.33 V and the total reflected power is equal to 1.39 W. Note that the total forward voltage is equal to the vector sum of the INITIAL forward voltage and the re-reflected voltage. The total steady state forward voltage is equal to 66.66 V + 8.33 V = 75 V and the total steady state forward power becomes 112.5 W (75^2/50) (vector voltage superposition at work).

At the source, the total rearward voltage created by the rearward wave is equal to the vector sum of the incident rearward voltage (-25 V) plus the re-reflected voltage (+8.33 V). The total rearward voltage delivered to the source is equal -16.67 V. The total voltage developed across the source impedance is equal to the INITIAL forward voltage (+33.33 V) minus (note the + reference direction) the rearward voltage (-16.67 V). The total voltage in the source impedance is equal to +33.33 V - (-16.67V) = 50 V. The total source power dissipation is equal to 100 W (50^2/25).

Several important points to note:

1. The level of voltage, current (and power) reflection or re-reflection are determined by the reflection coefficient as determined at the end of the line. This is consistent with general transmission line theory.

2. All of the forward and rearward voltage, current and power levels are determined through vector superposition of voltage and current. Power is a resulting scalar quantity. This is consistent with general circuit theory and superposition.

3. Reflected (rearward) voltage and current directly determine the steady state conditions within the source and line. The reflected wave (V and I) directly determine the total Z seen by the source (the reflected wave is very real).

4. In this example, the power dissipation within the source, the transmission line and in the load increase relative to the INITIAL conditions as a direct result of the reflection and re-reflection process. This does not violate the law of conservation of power.

5. The total forward power increases as a direct result of the vector superposition of forward voltage and current. This DOES NOT require a corresponding destructive interference process (reduction of power elsewhere) to balance the law of conservation of power (The power dissipation in the source increases at the same time the forward power increases - it does not need to correspondingly decrease). Voltage and

current superimpose in both directions - power is a resulting scalar quantity. The law of conservation of power is satisfied in that the total power delivered to the system is dissipated within the system.

With that, I wish you all a Merry Christmas and Happy Holidays. I'll be off for awhile (unless the impending fractal optimization is posted)

Take care,

Steve VE9SRB

4486. Re: Wideband magnetic loop please look

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 15:19:41 UTC
From: Maarten Hagg <maartenmiriam@hetnet.nl>
Message-ID: <at7l34sib1@reader10.wxs.nl>
Source record: 129325

Dear Ivan,

The WL1030 is a RX antenna indeed.
No tuning IP2>70dB IP3>40dB capable of handling strong signals.
IM3 to signals 1MHz 1.5 MHz < 120dB.

Regards Maarten Hagg

"OK1SIP" <remove_ok1sip@atlas.cz> wrote in message
news:5f5159fa.0212102314.10c27802@posting.google.com...
> "Maarten Hagg" <maartenmiriam@hetnet.nl> wrote in message
news:<at4j0rskh1@reader11.wxs.nl>...
> > Dear readers,
> >
> > Please look at :
> >
> > http://home.hetnet.nl/~maartenmiriam/index.html
> >
> > Any comment is welcome.
> >
> > Maarten Hagg
>
> 10 kHz - 30 MHz with NO tuning ? What about selectivity ? What about
> cross-modulation from broadcast LW, MW and SW stations ? Receiving
> only ?!
>
> BR from Ivan

4487. Re: MFJ v Autek v Palomar v HB R-X NB ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 15:41:30 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <0Fv3PUov909ag6maDNatJCfAOxq9@4ax.com>
Source record: 129326

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote:

>I'm in the process of retiring (modest budget) and hoping to do some HF and
>VLF antenna work. I have a Palomar R-X noise bridge that has served me
>reasonably well but it doesn't go below 1 mHz. I've used a borrowed MFJ 259
>and Autek RF-1 but not enough experience to make a decision other than they
>sure are convenient. I've reviewed the Dec. 87 QST article on a Lab-Style
>RX noise bridge as well as the Aug. 89 QST on Improving R-X noise bridges by
>using a binocular ferrite core for the transformer, the "heart" of the noise
>bridge. I'm looking for intelligent opinions on what I should consider for
>my last or next to last antenna bridge. Right now I'm sort of leaning to
>building the Lab-Style in Dec 87 QST substituting the binocular ferrite core
>but I'm not sure what it'll take to get the instrument down to VLF and maybe
>LF, maybe two instruments or a band switch.. Have there been any articles
>elsewhere that I should find and read? Are there commercial instruments
>perhaps by HP or others that might be on the used market and should be
>considered?

The Wireman sells a Tennatest noise bridge, although I'm not sure it goes low
enough in frequency for you... See http://www.thewireman.com/misc.html#tenna

Bob
k5qwg
>
>73
>hank wd5jfr
>

4488. All Band Wire Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 15:51:25 UTC
From: rickwiles1@aol.com
Message-ID: <20021211105125.19527.00000477@mb-ba.aol.com>
Source record: 129327

During the spring of 2003 I hope to go to Haiti and wish to take along the minimal amout of radio equiptment so is they a simple wire antenna that can work several bands without a tuner? The bands I hope to work are 75, 20, 17, and maybe 15 meters. I may bring a tunner but the lest amount of stuff I have to take along the happier I'll be.

4489. Stub-line Transformers. New program.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 15:56:48 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <at7n80rjd1@sparta.btinternet.com>
Source record: 129328

NOW AVAILABLE

New Program " STUBTUNE.exe "

This program assists with the design of stub-line transformers used for such purposes as matching the feedpoint impedance of balanced radio antennas to the Zo impedance of the transmission line from the transmitter. This program is applicable only to balanced-pair lines. Transmission efficiency theough the transformer is calculated.

It is an improved version of program STUMATCH.exe in that it takes into account conductor loss in the transformer and is therefore more accurate when extreme ratios of (Antenna Impedance)/(Feedline Zo) are involved. Operating procedure is more complicated than STUMATCH. However it performs calculations beyond the facilities offered by the Smith Chart,

The program is peculiar in that the Zo of the feedline is not entered. All input data is variable in small up/down increments until the input impedance of the transformer is equal to the Zo of the line to be matched. Educational.

STUBTUNE is self-contained in one small file, download in a few seconds from website below, run immediately.

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

4490. Re: All Band Wire Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 16:44:03 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <at7q0i$20l$1@sparta.btinternet.com>
Source record: 129330

Rick,

Just take a hank of about 40 feet of thin, stranded, plastic-insulated, flexible wire to hang out of top-floor hotel windows or throw over trees.

Dont forget ground connection of 10 feet of wire terminated with a big aligator clip. Have two lengths. Great for connecting to hotel water pipes on opposite sides of the bedroom.

Take a few small home-made bottom-loading/tuning coils wound on cardboard tubes. Plus a 300pF variable capacitor. Make your own tuners as you go along. A few aligator clips and wander-plugs help. (On one of my trips I took a small soldering iron. Don't forget a little resin-core solder.)

Small screw driver (a knob may become loose). Small wire cutter/nipper/stripper (you will wish to change antenna length).

Egg insulator or small bits of plastic with two holes drilled in them.

Mike, phones, key, pencil and paper, log book.

Make a list of bits and pieces. You will be glad you did. But your list of essentials will not be complete until after your second trip.

Don't forget the rig.
--
==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

4491. Re: Antenna switch

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 16:44:36 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92E16E62BA936michalkunyahoocom@128.233.3.7>
Source record: 129329

Yup I checked ten tec and nothing is there about this stuff.
Winradio has a plan for one but I'm not an expert in electronics so I have
no idea how to put it together.
Perhaps I will need to make a simple manual switch.
Any idea what parts should I use to minimize the signal loss?

Bill M <""\"exray\"\"\"@n-o- .caribe.net> wrote in
news:uvcp0pc97at38e@corp.supernews.com:

> Michalkun wrote:
>> Really? So the price is high just because the switch is designed for
>> high power? What does high power mean? Transmitting?
>> Does anybody know about a switch for just a scanner?
>>
>>
>
> It seems simple enough to design/build one with switching diodes
> controlled by the LPT1 port. Have you checked TenTec to see if they
> have such an offering for their radios? I understand there are some
> Yahoo user groups for the WinRadio and TenTecs,,,maybe somebody there
> has a better suggestion
> -Bill
>
>

4492. Re: All Band Wire Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 16:50:36 UTC
From: G Blair <gblair@sympatico.ca>
Message-ID: <3DF76CDC.9070303@sympatico.ca>
Source record: 129331

RickWiles1 wrote:
> During the spring of 2003 I hope to go to Haiti and wish to take along the
> minimal amout of radio equiptment so is they a simple wire antenna that can
> work several bands without a tuner? The bands I hope to work are 75, 20, 17,
> and maybe 15 meters. I may bring a tunner but the lest amount of stuff I have
> to take along the happier I'll be.

Why not take dipoles for the bands you want to use, or better yet a dipole for 75 and make up wire verticals for 20, 17, and 15? Verticals have much lower take off angle than dipoles. A 23 ft vertical and your tuner makes an excellent antenna for the DX bands.

You may want to reconsider 75. In the tropics, it is a very noisy (QRN) band with short range local contacts, if any, during the day. It opens up a bit in the middle of the night.

To answer your question, the rule for most antennas is "bigger, higher, better". Hang the longest, highest wire you can throw over two palm trees and hook the mid point up to your tuner with either coax or even better, open wire feed line.

Palm trees make great antenna supports.

To travel light, why not purchase wire and rope at a hardware store once you arrive in Haiti? However, I would bring your tuner and the feed line of your choice with you.

What do you use at home?

Good luck!

73's
Greg, ve0acr

4493. Re: Antenna switch

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 17:12:10 UTC
From: Bill M <"\\exray\"\"\"@n-o- .caribe.net>">
Message-ID: <uvesdcedc79jff@corp.supernews.com>
Source record: 129332

Michalkun wrote:
> Yup I checked ten tec and nothing is there about this stuff.
> Winradio has a plan for one but I'm not an expert in electronics so I have
> no idea how to put it together.
> Perhaps I will need to make a simple manual switch.
> Any idea what parts should I use to minimize the signal loss?

Just use an off-the-shelf rotary switch mounted in a metal box with
sockets. The loss will be negligible.

-BM

4494. Re: AM Peak Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 17:19:29 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <BsKJ9.2$Xd.667@newsfeed.slurp.net>
Source record: 129333

RE: Funny numbers

You are right. I hadn't used that spreadsheet in a long time, and apparently I had last saved a polluted version of it. Sorry about that.

Below is a run of the corrected version, done for the more typical 50-ohm load Z; also showing how the peak power rises with asymmetrical modulation. Negative peaks are held to 100% modulation, but positive peaks can go above 100%.

Such waveforms occur naturally in human speech, and can also be created/enhanced by audio processors (commonly done by AM broadcast stations).

Add some antenna system SWR as shown in the bottom group of numbers, and some transient voltage induced across the antenna by nearby lightning, and you can see why antenna and transmitter system components can have a tendency to arc.

Richard Fry

Spreadsheet Screen Paste

VSWR = 1:1 R. Fry 10/30/92
50 ohm Impedance (R) Revisited 12/11/02
1 kW Unmod Carrier Power

Avg Volts = (1 + Mod Index) * SQRT(VSWR * Unmod Avg Carrier Pwr * R)
Peak Volts = Avg Volts * 1.414
Peak Power = Peak Volts^2 / R

AMPLITUDE MODULATION (%)
0 100 105 110 115
120 125

Mod Index 0.00 1.00 1.05 1.10 1.15 1.20 1.25
E avg (V) 224 447 458 470 481 492
503
E peak (V) 316 632 648 664 680 696 711
Pk Pwr (kW) 1.999 7.998 8.402 8.817 9.242 9.677 10.122

For VSWR: 1.4

E avg (V) 265 529 542 556 569 582
595
E peak (V) 374 748 767 786 804 823 842

Pk Pwr (kW) 2.799 11.197 11.763 12.344 12.939 13.548 14.171

"Richard Harrison" <richardharrison@webtv.net> wrote...
> Gary Schafer wrote:
>> "What I was referring to was "peak envelope power" which is
> >4 times the carrier power with 100% modulation."
> >
> Looks like that to me too. There have been some really funny numbers
> posted. (etc)

4495. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 17:25:44 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF77518.9060402@ieee.org>
Source record: 129334

VE9SRB wrote:
> Understanding "what happens to reflected power at the source?" (in the
> steady state) is not an easy question and cannot be answered by looking at
> the total forward and rearward power *in the line*. An analysis of steady
> state power *in the line* does not provide a valid understanding of the
> relationships between source power, reflected power, re-reflected power and
> total forward power. The analysis must be performed using voltage and
> current and it must be recognized that net power is simply determined from
> the voltage and current interactions within the system.

You have made some errors in your application of the wave model. Given the
following two examples, if you don't get the identical answer for both
systems, you have made the same error that you continue to make and refuse
to recognize. The error that you are making is switching from the reflection
model to the circuit model in mid-analysis. That's a well known no-no.

100V source-----50 ohm feedline---+---1/2WL 150 ohm feedline---50 ohm load
25 ohm source

100V source-----1/2WL 150 ohm feedline---50 ohm load
25 ohm source

Using the reflection model I get identical results. Do you?

> 5. The total forward power increases as a direct result of the vector
> superposition of forward voltage and current. This DOES NOT require a
> corresponding destructive interference process (reduction of power
> elsewhere) to balance the law of conservation of power (The power
> dissipation in the source increases at the same time the forward power
> increases - it does not need to correspondingly decrease). Voltage and
> current superimpose in both directions - power is a resulting scalar
> quantity. The law of conservation of power is satisfied in that the total
> power delivered to the system is dissipated within the system.

Steve, you are still confused. If what you say is true, please show us
how to hook up two IC-706's each outputting 70.7V at 1.414A to obtain
a single wave of 141.4V at 2.828A. The conservation of energy principle
cannot be suspended just because you say it can. Every nanojoule of energy
is conserved. You still don't understand that destructive interference energy
in one direction causes an equal re-reflection of constructive interference
energy in the other direction. A transmission line must obey the same
conservation of energy principles as a transformer. Please show us how
to input two signals of 70.7V at 1.414A into a transformer and obtain
141.4V at 2.828A out of the transformer. If you cannot do it with a
transformer, you cannot do it with a transmission line without additional
energy from somewhere. That somewhere is re-reflected energy.

A transmission line is an energy pipe. If we have a matched system, we have energy input into the pipe at the source and no energy coming out of the source end. The only energy coming out of the system comes out of the load end. Therefore, any energy in the system that has ever been reflected back toward the load MUST SOMEHOW BE RE-FLECTED back toward the only energy output point that exists in the entire system, i.e. the load. We can argue over exactly what mechanism causes the re-reflection but there can be no doubt whatsoever that 100% re-reflection MUST SOMEHOW happen. Anything other than that simple concept is simply a hoax. After a year and a half, you still haven't answered this extremely simple multiple choice question:

In a matched system, the reflected energy:
1. flows into the source
2. stands still
3. disappears from the system
4. is re-flected back toward the load
5. Willy nilly obeys Dr. Best's every whim

Those are the only possibilities, Steve. Which one do you choose?
Why do you refuse to answer such a simple question?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4496. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 17:27:06 UTC
From: Geoff <swooutdoors@hotmail.com>
Message-ID: <KzKJ9.318189$QZ.47458@sccrnsc02>
Source record: 129335
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

"Zoran Brlecic" <WA7AA@attbi.com> wrote in message
news:3DF6656C.9080606@attbi.com...
> Andy Cowley wrote:
>
> >>>GPS receivers only receive signals, they do not transmit them.
> >>
> >>It doesn't matter. Every receiver has some sort of an oscillator which,
> >>albeit very weak, *could* interfere with the aircraft's sensitive
> >>navigation and control systems. Especially if every passenger fired up
> >>one or more of those.
> > >
> > >
> > > And the steward(esse)s can't use a microwave oven? You are joking
> > > aren't you? If the navigation and control systems really were that
> > > subject to RFI then they would never be allowed near an aircraft.
> > > I suppose you believe that the satellite phones have been constructed
> > > magically without oscillators? And the dozens of other transmitters,
> > > receivers, transponders etc. are all built without oscillators?
> > > Complete bullshit, Zoran. It's just another stupid bureaucratic
> > > rule, without rhyme or reason.
>
> Whatever gets you through the night, Andy. There is a big difference
> between the *controlled* RF environment in the aircraft (i.e. all the
> aircraft RF producing equipment that has been tested, shielded and
> verified) and the *uncontrolled* RF environment (i.e. dozens of
> cellphones transmitting at once, dozens of pagers, two-way radios, etc.).
>
> I, for one, would much rather have every passenger turn off the damn
> phone than having so much as a 1% increased risk of crashing.
>
> About ten years ago, I witnessed a funny thing when one of the
> co-workers whipped out his cellphone and started jabbering - I had a
> board on my test bench and as he was speaking about 5-6 feet away, one
> of the 1N4148 diodes on the board literally lit up and burned. The board
> was not even powered up at the time, btw.
>
> There is a good reason most of the hospitals don't allow cells in the
> building or at least in the vicinity of the intensive care units. Or is
> that just another bureaucratic conspiracy?
>
>
> 73 ... Zoran WA7AA

It is funny that you mentin hospitals. My girlfriend is a nurse in the ICU of Baylor Medical in Grapevine, Texas. They have signs all over the floor (and every other floor for that matter) prohibiting the use of cell phones. Now, according to the chief resident the signs are there because of the noise, lack of consideration, and general disturbance the phones ringing and people using them cause. He didnt mention any other reasons. So dont speak about what you dont know....

4497. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 18:14:40 UTC
From: Dave <davenpat@btopenworld.com>
Message-ID: <at7vaghep1@helle.btinternet.com>
Source record: 129337
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message
news:3df67d89$0$8504$ba620e4c@news.skynet.be...
> I have seen here in Belgium a sticker prohibiting cellphones on an
> hospital's door ... and a cellular relay, pager antennas and the like on
the
> roof of the building.
>
> 73 de ON5MJ - Jacques

Same here.
We have an amateur 70cm repeater on our local hospital roof and a ban on
mobile phones within the hospital.

DE G6 KHP

Dave
>
>

4498. Re: Imaginary Reflections?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 18:16:59 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <uhCdnQ0K3-MTHWqgXTWc3A@comcast.com>
Source record: 129336

Richard,

We went through this kind of thing here some time ago. If you want to see reflections, transmit narrow pulses at a rep rate that is much slower than the propagation delay of the cable. Now connect a 'scope someplace near the source, and you can seee the reflection coming back if the cable is not terminated in Z0. If the source impedance is not Z0 either, you can see the pulse bounce back and forth until it finally damps out. This is a common method by which cable testers work, because it will tell you the distance to any discontinuety.

Tam/WB2TT
"Richard Fry" <rfry@adams.net> wrote in message
news:YiHJ9.35771$5P3.2624141@newsfeed.slurp.net...
> RE: Earlier post below...
>
> If reflections are imaginary -- how is the following reality explained?
>
> A very good directional coupler, correctly adjusted, can have upwards of
> 60dB directivity. If it is designed to correctly sample both the electric
> and magnetic fields in the transmission line on which it is mounted, its
> output sample will not change with the location of the coupler along the
> line regardless of load SWR, for a given source power in the line.
>
> Using such a coupler on a transmission line conducting X watts of power
> into a perfectly matched load Z will show ~ 60dB difference in output
> voltage when looking at the forward and reflected energy (by rotating
> the coupler 180 degrees and refitting it to the line).
>
> Remove the termination from the line. The reflected sample now equals
> the forward sample, less line loss to the load and back. I have confirmed
> this for myself while doing RF pulse measurements of TV broadcast
> transmitting antenna systems.
>
> Richard Fry
> ------------------------
>
> "Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
> news:at2lrc$n6n$2@knossos.btinternet.com...
> > It is the notion of reflected power itself which causes the confusion.
> >Best to erase it from the imagination and return to square one.
> >All can be clarified without resorting to black magic. KISS. There's
> >no point in trying to solve problems which didn't exist before reflect-
> >ed power entered the vocabulary.
>

>

4499. Close range power transmission

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 18:21:51 UTC
From: Aron Bacs <aronbjr@bellsouth.net>
Message-ID: <X7LJ9.24628$X%3.10553@news.bellsouth.net>
Source record: 129338

First, I am not a radio expert in any shape or form, so please excuse the following question!

I need to transmit approx. 72 mW at a distance of about 18 inches (~1/2 m) and would
like to stay at frequencies that are below the Mhz range if possible.

I have tried looking up this type of info, but have been unable to find anything useful.

Thanks for any help antenna, circuits, info...

Aron

4500. Re: All Band Wire Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 18:30:06 UTC
From: F8BOE Olivier <f8boeNOSPAM@free.fr>
Message-ID: <3df78466$0$22971$626a54ce@news.free.fr>
Source record: 129339

Hello!

Try a Conrad-Hertz-Windom antenna (FD4): 41.5 metres of isolated electric wire cut at 1/3-2/3, a 1/6 current balun, RG58cu or 300 Ohms tween lead depending if you want to have the balun placed right out of the shack or not and eventually an antenna tuner.
If you use the same sizes as the Fritzel FD4 2kW model you should work from 80 to 10 even on WARCs with slight tuning.

73 de F8BOE Olivier ...-.-

4501. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 18:33:10 UTC
From: Andy McMullin <Andy@rickham.net.NOSPAM>
Message-ID: <3df7830d@palantir.pbs.plym.ac.uk>
Source record: 129340
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

"Geoff" <swooutdoors@hotmail.com> wrote in message
news:KzKJ9.318189$QZ.47458@sccrnsc02...
>
>
> It is funny that you mentin hospitals. My girlfriend is a nurse in the ICU
> of Baylor Medical in Grapevine, Texas. They have signs all over the floor
> (and every other floor for that matter) prohibiting the use of cell
phones.
> Now, according to the chief resident the signs are there because of the
> noise, lack of consideration, and general disturbance the phones ringing
> and people using them cause. He didnt mention any other reasons. So dont
> speak about what you dont know....

We have signs banning cell phones in our student computer rooms. Not because of the disturbance caused by ringing or by people talking on them. We ban them because they cause floppy disks to become corrupted in the disk drives. When the phones start transmitting to try and find their nearest cell (and if it is within 4 feet of the computer and the computer has a diskette inserted) there is a 75% probability of diskette corruption.

That's all really -- except if there's even the faintest chance I might get killed because a cell phone interupted the electronics of an aeroplane and caused it to crash or interfered with the medial equipment keeping me alive in ICU: I'd ban them there too!!

I'd rather live without a cell phone than die because of one -- even if the odds are minute.

4502. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 18:37:24 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <kn0fvu413re84qu18caplj0sfo8ngpvnbs@4ax.com>
Source record: 129341

On Wed, 11 Dec 2002 14:56:17 GMT, "VE9SRB" <srbest@att.net> wrote:

>
>I'll be off
>for awhile (unless the impending fractal optimization is posted)
>
>Take care,
>
>Steve VE9SRB

Hi Steve,

Still believe in Santa Claus too? ;-)

I am sure at least one elf will have fudged the numbers you provided
so that you wouldn't suffer the embarrassment of being non-scientific.
THAT is what I wait for. The results will be as over cooked as a
Christmas Ham served cold for Valentines day (if then, considering the
inability of your host to meet his own commitments).

73's
Richard Clark, KB7QHC

4503. Re: All Band Wire Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 18:38:08 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF78610.1050309@ieee.org>
Source record: 129342

RickWiles1 wrote:
> During the spring of 2003 I hope to go to Haiti and wish to take along the
> minimal amout of radio equiptment so is they a simple wire antenna that can
> work several bands without a tuner? The bands I hope to work are 75, 20, 17,
> and maybe 15 meters. I may bring a tunner but the lest amount of stuff I have
> to take along the happier I'll be.

I run my 130 ft dipole on all those frequencies without a tuner.
I vary the length of the 450 ohm ladder-line to achieve a match.
On those bands, here are the ladder-line lengths necessary for
me to achieve a match:

3.8 MHz - 99 ft., 14.2 MHz - 105 ft., 18.14 MHz - 95 ft., 21.3 MHz - 88 ft.

Your antenna would not tune exactly the same as mine but you can tune it
before you leave on your trip. With a basic ladder-line length tuned to
21.3 MHz, I could have three extensions of 7 ft, 4 ft, and 6 ft which
I add to achieve a match. Banana plugs/sockets work great for these
extensions.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4504. Re: Close range power transmission

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 18:49:27 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <cq1fvu8pkkr8tu62ovcaavscjjqng0lufb@4ax.com>
Source record: 129343

On Wed, 11 Dec 2002 13:21:51 -0500, "Aron Bacs"
<aronbjr@bellsouth.net> wrote:

>First, I am not a radio expert in any shape or form, so please excuse the
>following question!
>
>I need to transmit approx. 72 mW at a distance of about 18 inches (~1/2 m)
>and would
>like to stay at frequencies that are below the Mhz range if possible.
>
>I have tried looking up this type of info, but have been unable to find
>anything useful.
>
>Thanks for any help antenna, circuits, info...
>
>Aron
>
>

Hi Aron,

Use an 18" transmission line.

Any other answer demands to know how much power must be received. If
it is this same 72mW, you may already be in trouble insofar as
violating FCC power limits, antenna size and so on. Even for 18
inches.

Consider doing it optically where at this power level and frequency
you could easily transmit miles.

73's
Richard Clark, KB7QHC

4505. Test - mea culpa

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 19:21:33 UTC
From: Mike Coslo <mcoslo@adelphia.net>
Message-ID: <804fvu81pe165mnn92roi2bsl3oc0iur45@4ax.com>
Source record: 129344

HAveing a newsreader prob and switched readers - sorry!

- Mike -

4506. Re: Wideband magnetic loop please look

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 19:32:31 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0212111132.110e3ac2@posting.google.com>
Source record: 129345

"Maarten Hagg" <maartenmiriam@hetnet.nl> wrote in message
news:<at4j0rskh1@reader11.wxs.nl>...
> Dear readers,
>
> Please look at :
>
> http://home.hetnet.nl/~maartenmiriam/index.html
>
> Any comment is welcome.
>
> Maarten Hagg

Hi,

This product is very simlilar to wellbrook's active magnetic loop
dia.1.1m) suited for listening purposes - ONLY - between 1.5-30 Mhz
(ALA1530) or 3-30 Mhz (ALA330) that provide quite good performance, an
IP2= +70dB, IP3= +40 dB with some senstivity to strong
intermodulation.

Note that if your RFI are quite strong (S9), the magnetic component
will not suppres them contrary to what state their ads. I tested both
products from Wellbrook, so i suspect this new brand to not work a
better way.

Review and comments on eham.net or
http://www.astrosurf.com/lombry/qsl-ala330.htm

Thierry
http:/www.astrosurf.com/lombry

4507. Re: Hi-Q or Hamstick mobile ant ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 19:40:06 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0212111140.52e67e7b@posting.google.com>
Source record: 129346

"Jerry Oxendine" <joxendi@bellsouth.net> wrote in message
news:<mGvJ9.69495$bq3.32783@news.bellsouth.net>...
> Thierry <lombryt@hotmail.com> wrote in message
> news:db35a0c.0212101429.2875f81d@posting.google.com...
> > Hi,
> >
> > I am interesting in mobile antenna for my rabbit (golf) car.
> > Could someone explain me what is (are) the difference between the
> > antennas sold by Hi-Q vs e.g. Hamstick ?
> > The first company sales antennas 10 times more expensive than the
> > second one ... For me both products are similar even if the first
> > looks more robust, but the first are rate at $300, the second $30 or
> > so... That makes a first big difference. Are there others, technically
> > speaking ?
> >
> > Thanks
> > Thierry
> > http://www.astrosurf.com/lombry
>
> Like so many things it depends on what level of performance you are seeking.
> The hamstick positively stinks on any frequency below 20 Meters. And if you
> are going to operate on all bands,
> your best bet is the screwdriver. After all, by the time you buy enough
> 'sticks to cover 8 bands, you will have spent as much for less performance.
> Then you'd have to consider where you'd store
> all those sticks in a VW.
>

Hi,

OK I understand that I have to buy as many stick as band to work...
:-((
As you say in that case I prefer to buy a screwdrive like an Hi-Q.
Looks compact seems to be an excellent performer, even if a bit
expensive.

the other choice should be to install a R8000 on a tripod... but 10m
high to bend each time I worked in mobile is a tedious task...

One problem to solve, find a way to place the Hi-Q on my car roof top
with large magnets. Will see that with the manufacturer.

Thanks for the info

Thierry
http://www.astrosurf.com/lombry

> Jerry
> K4KWH
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.423 / Virus Database: 238 - Release Date: 11/25/02

4508. Re: Hi-Q or Hamstick mobile ant ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 20:15:35 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF79CE7.AD005332@cwis.net>
Source record: 129347

Thierry,
Have you considered a 'bug catcher' type antenna?
'Doc

4509. Re: Imaginary Reflections?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 20:16:23 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <r2NJ9.34$Xd.38932@newsfeed.slurp.net>
Source record: 129348

You have described the essence of the RF pulse tests I was doing. This tests permits evaluation and physical location of various discontinuities along the transmission line, and shows the antenna reflection at the far end of trace. The antenna match is adjusted to minimize the pulse return from the antenna, itself, with little affect from any VSWR produced by/in the line, itself. Very effective.

RF

4510. Re: All Band Wire Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 20:46:15 UTC
From: aa1ll@email.com
Message-ID: <e85be400.0212111246.43b1373b@posting.google.com>
Source record: 129349

rickwiles1@aol.com (RickWiles1) wrote in message
news:<20021211105125.19527.00000477@mb-ba.aol.com>...
> During the spring of 2003 I hope to go to Haiti and wish to take along the
> minimal amout of radio equiptment so is they a simple wire antenna that can
> work several bands without a tuner? The bands I hope to work are 75, 20, 17,
> and maybe 15 meters. I may bring a tunner but the lest amount of stuff I have
> to take along the happier I'll be.

Try a center fed wire antenna with flat top length of 79 feet
fed with 58 feet of 300 ohm twin lead. It will give close to
series resonances at 3.8, 14.1, 18.1 and 21.3MHz. Use wire of
number 22 to 14 for flat top; not critical. The impedance won't
be really high but you will still need a tuner. Forget the balun.
(remember to multiply the feedline length by velocity factor, ~.85)

See http://www.qsl.net/aa1ll/cfwire.htm for details on multiband
wires.

73, Paul, AA1LL
Mason, NH

4511. Re: AM Transmitter Project

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 21:11:22 UTC
From: L Caracciolo <larryc@northwest.com>
Message-ID: <3DF7A9FA.B9BC63A4@northwest.com>
Source record: 129350

Modulating both the driver and PA is excellent. Using a Vreg to modulate Vcc has an issue...there is potential for forward-biasing back into the Vreg (death to the vreg!) during voice peaks, as Vcc can rise to twice the no-signal value, no?

What method to determine the modulation depth?

larryc
=====

Uncle Peter wrote:

> "Tarmo Tammaru" <t-tammaru@home.com> wrote in message
> news:0oadnX7sX8foNWugXTWcrg@comcast.com...
> > Yeah, I was going to suggest that too. Audio modulate the voltage
> regulator
> > that feeds the output stage, then no transformer. Set the quiscent value
> of
> > the DC out to 1/2 the normal value. Even simpler might be to feed the DC
> to
> > the output stage through an emitter follower that has its base biased at 6
> > or 7 volts, with 10 V p-p audio capacitively coupled on top of that.
> > Tam/WB2TT
> > "
>
> Just use a decently sized audio IC to directly drive the PA stage collector.
> For maximum modulation depth, the driver stage should have some audio
> applied to the collector as well.
>
> Pete k1zjh

4512. skelton cone antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 21:47:30 UTC
From: Bert <tsteege@planet.nl>
Message-ID: <at8bpi$h85$1@reader10.wxs.nl>
Source record: 129351

Hallo
could anyone give me some information about this antenna.
73 Bert

4513. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 21:54:46 UTC
From: Zoran Brlecic <WA7AA@attbi.com>
Message-ID: <3DF7B3A3.8010804@attbi.com>
Source record: 129352
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

Geoff wrote:

>>There is a good reason most of the hospitals don't allow cells in the
>>building or at least in the vicinity of the intensive care units. Or is
>>that just another bureaucratic conspiracy?
>>
>>
>>73 ... Zoran WA7AA
>
>
> It is funny that you mentin hospitals. My girlfriend is a nurse in the ICU
> of Baylor Medical in Grapevine, Texas. They have signs all over the floor
> (and every other floor for that matter) prohibiting the use of cell phones.
> Now, according to the chief resident the signs are there because of the
> noise, lack of consideration, and general disturbance the phones ringing
> and people using them cause. He didnt mention any other reasons. So dont
> speak about what you dont know....

:-)))))) Wow, I guess that leaves me speechless, doesn't it? Since the
chief resident from some Hicksville in Texas apparently doesn't have a
clue why hospitals ban the use of cellphones in the critical areas, this
testimonial from an idiot doctor somehow applies to everybody everywhere.

Too bad your girlfriend didn't ask a night janitor or a parking garage
attendant.

WA7AA

4514. Re: SWR Bridge component values-Henry 2K4

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 21:55:29 UTC
From: barry@psyber.com
Message-ID: <kvOJ9.236$dwA4.22675692@news2.randori.com>
Source record: 129354
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,sci.electronics.repair

You might try getting a copy of QST magazine and seeing if the classifieds have schematics for your linear. I've seen many "legacy" documents advertised there.

Great amp. by the way.

barry

4515. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 21:57:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvfd6s28p90i2d@corp.supernews.com>
Source record: 129353

VE9SRB wrote:
>
> It must be understood that in the steady state, the power carried by a wave
> and the power dissipated in a load are the net result of a continuing
> process of multiple wave reflections and re-reflections within system. The
> level of voltage and current (and therefore power) reflection and
> re-reflection at either end of the line are a direct function of the
> terminating impedance (reflection coefficient) at the end of the line.
>
> In the line itself, understanding "what happens to power?" (in the steady
> state) is an easy question. The total forward power is determined from the
> total forward voltage and current. The total rearward (reflected) power is
> determined from the total rearward voltage and current. The net power
> delivered to the line is simply equal to the total forward power minus the
> total rearward power (after making some assumptions about Zo).
>
> Understanding "what happens to reflected power at the source?" (in the
> steady state) is not an easy question and cannot be answered by looking at
> the total forward and rearward power *in the line*. An analysis of steady
> state power *in the line* does not provide a valid understanding of the
> relationships between source power, reflected power, re-reflected power and
> total forward power. The analysis must be performed using voltage and
> current and it must be recognized that net power is simply determined from
> the voltage and current interactions within the system.

I agree entirely.

> Let's consider this further with a very simple example below:
>
>
>>I'd like to present the following hypotheses for comment. All are
>>restricted to single frequency steady state conditions and
>>time-invariant components. (That is, component values can't change with
>>time.)
>>
>>For the first one, I'll define a "source circuit" as either a voltage
>>source with series resistance or current source with a shunt resistance.
>>For this circuit:
>>
>>1. The power dissipation in the source resistance can be predicted
>>completely with no other knowledge than the voltage of the voltage
>>source or current of the current source, the value of the source
>>resistance, and the impedance seen by the source circuit.
>>
>

>
> Absolutely correct, with the understanding that the steady state impedance
> seen by the source is a direct function of the reflected wave(s) created by
> the load at the end of the line. Without these reflections, the source
> would only see an impedance equal to the Zo of the line.

Yes, provided that a line is even present. The fact is that the source
circuit doesn't care whether it's connected to a line/load with all the
attendent forward and relected waves, or just a dull old R-L or R-C
circuit; at a single frequency, it can't tell the difference.

> . . .

>
>>Comment: Even for this much less restrictive condition, the source
>>dissipation is uniquely determined by the impedance seen by the source
>>circuit.
>>
>>3. No single-frequency steady state source circuit can distinguish
>>between a simple lumped component load and a load connected to a
>>transmission line having any amount of forward or reverse power, as long
>>as both present the same impedance to the source circuit.
>>
>>Does anyone disagree with any of these hypotheses? If so, please present
>>a numerical example showing it to be false.
>>
>>If you accept these hypotheses, there's a strict one-to-one
>>correspondence between the impedance seen by the source circuit and the
>>source circuit's dissipation (and delivered power), but there's no such
>>correspondence between the reverse power on a connected transmission
>>line and the source circuit's dissipation. > >
>
>
> There may not be a "one-to-one" relationship between the reflected
> (rearward) power and the source power dissipation but there is a
> "one-to-one" relationship between the rearward voltage and current and the
> source power dissipation. In recognizing that the reflected voltage and
> current play a direct part in determining the Z seen by the source, they
> must play a part in determining the source power dissipation.
>
> Lets look at the simple example.
>
> Here's the TL circuit:
>
> 100 V -- Zs = 25 ohms -- 1 WL 50 ohm line -- 25 ohm load
>
> Using simple transmission line theory we can remove the line and draw the
> equivalent circuit:
>
> 100 V -- Zs = 25 ohms -- 25 ohm load
>

> Steady state conditions:
>
> The voltage across each 25 ohm load is 50 V. The total (steady state) power
> dissipation in each of the 25 ohm loads is 100 W. Total power dissipation
> in the system (in the steady state) is equal to 200 W.
>
> Steady state condition in the line:
>
> Pforward = 112.5 W; Prearward = 12.5 w; Pdelivered to the line (load) = 100
> W.
>
> Now let's look at how the 12.5 W of reflected (rearward) power affects the
> source and steady state conditions:
>
> To understand the effects of reflected voltage and current (power), we must
> first look at what happens when the source is first energized. When first
> energized, the source sees a transmission line with an impedance equal to 50
> ohms. The INITIAL forward voltage in the source impedance is equal to
> +33.33 V and the INITIAL forward voltage in the line is +66.66 V. The
> INITIAL forward power in the source impedance is 44.44 W and the INITIAL
> forward power in the line is 88.89 W. The total power dissipation in the
> initial state is 133.33 W. If the line were infinitely long or terminated
> in a 50 ohm load (no reflections) these INITIAL conditions would not change.
> This is an important point for all the people that believe reflected power
> (reflected voltage and current) is not "real".
>
> Lets see how the reflected wave(s) create the steady state conditions. As
> the system transitions from the initial to the steady state, there is a
> process of reflection and re-reflection within the line between the source
> and the load. To analyze the effect of this process, let's jump to the
> steady state and consider the 12.5 W of steady state reflected power and how
> it affects the INITIAL conditions. (We could analyze the effect of each
> individual reflection but this would take too long)
>
> The 12.5 W of rearward power is associated with a rearward voltage equal
> to -25V. At the source, this rearward voltage (wave) sees a terminating
> impedance of 25 ohms and a reflection coefficient equal to -.3333. The
> total re-reflected voltage is equal to +8.33 V and the total reflected power
> is equal to 1.39 W. Note that the total forward voltage is equal to the
> vector sum of the INITIAL forward voltage and the re-reflected voltage.
> The total steady state forward voltage is equal to 66.66 V + 8.33 V = 75 V
> and the total steady state forward power becomes 112.5 W (75^2/50) (vector
> voltage superposition at work).
>
> At the source, the total rearward voltage created by the rearward wave is
> equal to the vector sum of the incident rearward voltage (-25 V) plus the
> re-reflected voltage (+8.33 V). The total rearward voltage delivered to the
> source is equal -16.67 V. The total voltage developed across the source
> impedance is equal to the INITIAL forward voltage (+33.33 V) minus (note the
> + reference direction) the rearward voltage (-16.67 V). The total voltage

> in the source impedance is equal to +33.33 V - (-16.67V) = 50 V. The total
> source power dissipation is equal to 100 W (50^2/25).
>
> Several important points to note:
>
> 1. The level of voltage, current (and power) reflection or re-reflection
> are determined by the reflection coefficient as determined at the end of the
> line. This is consistent with general transmission line theory.
>
> 2. All of the forward and rearward voltage, current and power levels are
> determined through vector superposition of voltage and current. Power is a
> resulting scalar quantity. This is consistent with general circuit theory
> and superposition.
>
> 3. Reflected (rearward) voltage and current directly determine the steady
> state conditions within the source and line. The reflected wave (V and I)
> directly determine the total Z seen by the source (the reflected wave is
> very real).
>
> 4. In this example, the power dissipation within the source, the
> transmission line and in the load increase relative to the INITIAL
> conditions as a direct result of the reflection and re-reflection process.
> This does not violate the law of conservation of power.
>
> 5. The total forward power increases as a direct result of the vector
> superposition of forward voltage and current. This DOES NOT require a
> corresponding destructive interference process (reduction of power
> elsewhere) to balance the law of conservation of power (The power
> dissipation in the source increases at the same time the forward power
> increases - it does not need to correspondingly decrease). Voltage and
> current superimpose in both directions - power is a resulting scalar
> quantity. The law of conservation of power is satisfied in that the total
> power delivered to the system is dissipated within the system.

Again I agree. One can calculate all the voltages, currents, and powers
everywhere in the system, and get consistent and correct results. But
you can remove the transmission line entirely, so that you have no
reverse power, and no forward or reverse travelling waves, and yet have
exactly the same dissipation in the source and load resistors, and power
delivered by the source. As far as the conditions at the source circuit
connection are concerned, the only important result of all the wave
analysis is a single complex quantity: the impedance seen by the source.
That's all the source cares about, and it matters not one bit how it
came about. The source doesn't know or care how much energy is bouncing
around in the line, or even if it's connected to a transmission line at all.

> With that, I wish you all a Merry Christmas and Happy Holidays. I'll be off
> for awhile (unless the impending fractal optimization is posted)

chuckle No need to hold your breath. Have a good holiday, Steve.

Roy Lewallen, W7EL

4516. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 22:17:30 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF7B97A.2020704@ieee.org>
Source record: 129355

Roy Lewallen wrote:

> VE9SRB wrote:
>> 5. The total forward power increases as a direct result of the vector
>> superposition of forward voltage and current. This DOES NOT require a
>> corresponding destructive interference process (reduction of power
>> elsewhere) to balance the law of conservation of power ...
>
> Again I agree.

Roy, Steve has not been able to prove his is a true statement. In fact, I have proven it to be false. Can you prove it to be true? Do you think two AND ONLY TWO waves of 100V at 2A each can be added together to get 200V at 4A? Don't you wonder where the energy goes in the two reflected waves that are predicted by the superposition principle but Steve completely ignores?

In any energy transfer system, if the following is the only possibility:

```
+--------------------------------+
| Dynamic Storage Only |------> Energy Out
Energy In----------->| |
(zero energy out) | No Static Storage |<------ Energy In
+--------------------------------+
```

Doesn't any and all energy eventually flow toward the out port since none of it escapes from the in port on the left? What am I missing?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4517. Re: Imaginary Reflections?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 22:28:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvff16g4lmoo9d@corp.supernews.com>
Source record: 129356

TDR is a valuable technique with many applications. And although the principles of travelling voltage and current waves are the same for any waveform, the equations used for steady state sine wave analysis are simplifications of the general principles. So a great deal of care should be taken in extrapolating from what you observe on a TDR system to a steady state system. For example, a complex reflection coefficient can be calculated for a single frequency, and any terminating network having the same impedance at that frequency will produce exactly the same steady state reflection. But various networks all having the same impedance at one frequency will produce different time domain reflections (or different steady state reflections at different frequencies). Meaningful reflection coefficients for time domain analysis can only be derived from purely resistive terminations or discontinuities.

Another very important difference between TDR and steady state systems is that the source of a TDR is generally turned off (for pulse-type TDRs) or in a quiescent state (for step-type TDRs) when the reflection returns. The result is that the reflection sees a passive load equal to the source impedance. If the source is matched, the reflection will be absorbed by the source resistance(*). In a steady state system, the source is actively producing a signal, so the reflected waves don't just see a passive resistance. This is the reason for the total re-reflection from the matched source in an example I've presented several times.

Roy Lewallen, W7EL

(*) I'm being a little free and loose here, and only entirely accurate with regard to purely resistive source and transmission line impedances. When either or both aren't pure resistances, the condition for impedance matching in the usual sense isn't the same as the one for minimum reflection. If a transmission line has impedance R + jX, the load is considered matched when its impedance is R - jX, since this is the condition for maximum power transfer with a variable load impedance. However, the reflection is eliminated when the load impedance is R + jX. So in a single-frequency system you've got your choice between maximum power transfer or minimum reflection, but you can't have both if the line Z0 is complex. In the time domain (that is, TDR systems), eliminating a reflection when the line isn't purely resistive requires that the impedance of the load be the same as the impedance of the source over the whole range of frequencies contained in the TDR pulse or step. Fortunately, even very lossy transmission lines look essentially resistive over the range of frequencies excited by most TDR systems.

Richard Fry wrote:
> You have described the essence of the RF pulse tests I was doing. This
> tests permits evaluation and physical location of various discontinuities
> along the transmission line, and shows the antenna reflection at the far end
> of trace. The antenna match is adjusted to minimize the pulse return from
> the antenna, itself, with little affect from any VSWR produced by/in the
> line, itself. Very effective.
>
> RF
>
>

4518. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 22:37:09 UTC
From: murphys@comcast.net
Message-ID: <fb5e668b.0212111437.1631eb78@posting.google.com>
Source record: 129357
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

OK, let me see if I understand now...

Using the I Smac hypothetical:

Initially, the 100 watt transmitter attempts to deliver it's full output to the load, since it has no clue that the load is not matched to the source. When the energy hits the mismatch, a portion of it, 10 watts, is reflected back to the source, 180 degrees out of phase. This signal, being out of phase with the source, opposes 10 watts worth of source energy from subsequent waves, so the source only puts out 90 watts once the reflected waves reach it. Further, once the reflected wave reaches the source, it is re-reflected back toward the load after undergoing another phase inversion, so, the wattmeter will now read 100 watts forward, since the re-reflected signal is now 360 degrees out of phase... Meanwhile, the source is only supplying 90 watts and the load is dissipating 90 watts, so 10 watts is "standing" in the line... If I'm correct, that would be the "standing wave".....?

4519. Re: Hi-Q or Hamstick mobile ant ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 23:17:02 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212111517.23cc49f3@posting.google.com>
Source record: 129358

lombryt@hotmail.com (Thierry) wrote in message
news:<db35a0c.0212111140.52e67e7b@posting.google.com>...
> "Jerry Oxendine" <joxendi@bellsouth.net> wrote in message
news:<mGvJ9.69495$bq3.32783@news.bellsouth.net>...
> > Thierry <lombryt@hotmail.com> wrote in message
> > news:db35a0c.0212101429.2875f81d@posting.google.com...
> > > Hi,
> > >
> > > I am interesting in mobile antenna for my rabbit (golf) car.
> > > Could someone explain me what is (are) the difference between the
> > > antennas sold by Hi-Q vs e.g. Hamstick ?
> > > The first company sales antennas 10 times more expensive than the
> > > second one ... For me both products are similar even if the first
> > > looks more robust, but the first are rate at $300, the second $30 or
> > > so... That makes a first big difference. Are there others, technically
> > > speaking ?
> > >
> > > Thanks
> > > Thierry
> > > http://www.astrosurf.com/lombry
> >
> > Like so many things it depends on what level of performance you are seeking.
> > The hamstick positively stinks on any frequency below 20 Meters. And if you
> > are going to operate on all bands,
> > your best bet is the screwdriver. After all, by the time you buy enough
> > 'sticks to cover 8 bands, you will have spent as much for less performance.
> > Then you'd have to consider where you'd store
> > all those sticks in a VW.
> >
>
> Hi,
>
> OK I understand that I have to buy as many stick as band to work...

Well, not really, but you will have to get out and change the antenna
for each band. You can use a single 10 meter stick, with a few extra
stinger whips for each band and work 20-10 quite well. And the 20m
performance of the 10m stick and longer stinger is better than most
"20m sticks". I use a 20m stick with a 4 ft stinger for 40m quite a
bit. It works great, and about as good as my "bugcatcher" style
antenna. What kills the average "hamstick" performance is too short a
stinger whip on top. Also the "fat" coil versions are generally better
than the "slim" sticks. Also where the windings are for the "loading
coil" effect performance to quite a degree. The better sticks maximise

the "loading" windings towards the top, instead of a steady pitch the whole way along the stick. That improves current distribution a good bit on the lower bands. I use only two "stick" antennas and cover all bands. My original antenna is a heavily modified 5 ft tall 11m firestick CB antenna with the middle cut out and a fat 80m coil inserted. By tapping the coil, or changing stingers, it works all bands 80-10. And due to the large coil, it has bugcatcher performance. On 80 or 40 it uses a 4 ft stinger whip. So it's about 9 ft total. I can keep up with nearly anyone on 80 or 40, unless they have something really hard core cooked up with very tall masts, etc. BTW, I often add extra lower masts to the antennas when parked. Gives a large increase in performance. The screwdrivers are good antennas. The only thing I don't like about them, is it's hard to easily add lower masts to them. In many cases, the coil sits too low for my tastes. My fave HF antenna is the regular old bugcatchers. For brute performance, and ease of mast length modifying, etc, they can't be beat. But, you gotta get out to change bands...That doesn't bother me though. I don't use those though as they are so heavy and require such a heavy duty base. So I make "plastic bugcatchers" that weigh a fraction of a bugcatcher and have about the same performance. My antennas didn't cost me a thing. All made from junk sticks, etc. I've got a pile of old antennas, masts, stingers, etc I keep just to experiment. The hustler quick disconnect I use is the most expensive part...:/ MK

4520. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 23:27:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvfifopj8nk9da@corp.supernews.com>
Source record: 129359

Jes' ease back on the hammer of that shootin' arn. Nice an' easy. That's it. Take a deep breath. Ok. Now put the gun down, and we can talk.

You, I, and Steve all understand conservation of energy, and none of us would ever propose to violate it. I read Steve's statement (that you quote) to say that the forward power can be calculated entirely from the forward traveling voltage and current waves. And that the result you get doesn't depend on the values of the reverse traveling waves, or the reverse or total power. That is, once you calculate the value of forward power from the forward voltage and current waves, you don't modify the result based on the values of the reverse traveling voltage and current waves, the applied power, or the reverse power. Don't you agree with this?

Of course, we all know that when all the calculations are complete, the law of conservation of energy has to be satisfied. No one has said it's not.

Now we return you to your regularly scheduled showdown.

Roy Lewallen, W7EL

OC_CAM's Razor wrote:
> Roy Lewallen wrote:
>
>> VE9SRB wrote:
>>
>>> 5. The total forward power increases as a direct result of the vector
>>> superposition of forward voltage and current. This DOES NOT require a
>>> corresponding destructive interference process (reduction of power
>>> elsewhere) to balance the law of conservation of power ...
>>
>>
>> Again I agree.
>
>
> Roy, Steve has not been able to prove his is a true statement. In fact,
> I have proven it to be false. Can you prove it to be true? Do you think
> two AND ONLY TWO waves of 100V at 2A each can be added together to get
> 200V at 4A? Don't you wonder where the energy goes in the two reflected
> waves that are predicted by the superposition principle but Steve
> completely ignores?
>
> In any energy transfer system, if the following is the only possibility:
>
> +--------------------------------+
> | Dynamic Storage Only |------> Energy Out
> Energy In----------->| |

> (zero energy out) | No Static Storage |<------ Energy In
> +--------------------------------+
>
> Doesn't any and all energy eventually flow toward the out port since
> none of it escapes from the in port on the left? What am I missing?

4521. Re: SWR Bridge component values-Henry 2K4

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-11 23:37:11 UTC
From: Dick <rhughes33@cableone.net>
Message-ID: <bkifvuk19a5flu3uljp44o24f1i4iv3f3b@4ax.com>
Source record: 129360

Why not just contact RadioDan? http://www.radiodan.com/ He is the distributor for Henry amplifiers. That model is no longer in production, but I'm sure he can answer your questions.

Dick - W6CCD

On Tue, 10 Dec 2002 21:02:21 -0600, "Crazy George" <munschNO@attglobal.net.SPAM> wrote:

>The used 2K4 I bought suffered some kind of disaster inside the little >aluminum box containing the bridge. Someone probably tried to put a >kilowatt into an open circuit. The inside of the box is blackened, and >spotted with fine particles of molten metal. As a repair, some previous >owner simply removed most of what was in there, leaving the toroid around >the center conductor, and the two .01 caps on the RCA jacks. I have a >corrected copy of the schematic, and would like to obtain a few pieces of >additional data before I tackle rebuilding it.

4522. Re: Which moblie cb radio antenna with big coil is the best

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 00:01:49 UTC
From: Recordking@Hotmail.com
Message-ID: <e8d89b3f.0212111601.67f364f8@posting.google.com>
Source record: 129361

Recordking@Hotmail.com (DJboutit) wrote in message
news:<e8d89b3f.0212092020.24ed6a9@posting.google.com>...
> Which moblie cb radio antenna with big coil is the best out of these
> monkey,skyhawk,workman sp2000 or sp3000, megatron,sparrow/penetrator
> or any other good mobile big coil cb radio antenna. I what to know
> which one works will with low or high power. I have a uniden pro
> 510xl mobile radio and want to get a big coil antenna that is no more
> than 4 & 1/2 to 5 ft high. Looking for what u think I should get. I
> know some might say that a big coil is a waist of money for what I
> have but I still want to get a good one because I like the way they
> look.

I am think about get a monkey, dave made, terminator, road pro wasp,
raptor, python, hornet, scorpion ra113 or a mr coily. Which antenna
out of these works the best. I need like pros and cons on these
antennas.

4523. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 00:03:36 UTC
From: fpkearn_twelve@rondomondo.eircom.tv.ie.au
Message-ID: <3df7d19d.648216@news.eircom.net>
Source record: 129362
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

"Thomas C. Sefranek" <WA1RHP@ARRL.net> wrote:

> > And the steward(esse)s can't use a microwave oven? You are joking
> > aren't you? If the navigation and control systems really were that
> > subject to RFI then they would never be allowed near an aircraft.
> > I suppose you believe that the satellite phones have been constructed
> > magically without oscillators? And the dozens of other transmitters,
> > receivers, transponders etc. are all built without oscillators?
> > Complete bullshit, Zoran. It's just another stupid bureaucratic
> > rule, without rhyme or reason.
>

> The microwave oven is tested for emissions, and by the way YOU wouldn't want
> a microwave that had any serious leakage right?
what microwave oven ?

> The on board satellite phones again have been rigorously tested for use in
> the aircraft.
got that right.

> I'm in full agreement on the rules, as I notice the pilots these days have
> too much
> dependence on the nav. toys, and too little common sense.
hmmmmmm thats another thread on its own :-)

> Stupid bureaucratic rules are more like: I'm shining my light in your
> window and your
> not allowed to look at it. (We can't listen to cell phones!)
these rules are only stupid until someone ends up dead.
then the question will be - why.

4524. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 00:08:45 UTC
From: fpkearn_twelve@rondomondo.eircom.tv.ie.au
Message-ID: <3df7d25b.838507@news.eircom.net>
Source record: 129363
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

Andy Cowley <andy.cowley@uwe.ac.uk> wrote:

> > It doesn't matter. Every receiver has some sort of an oscillator which,
> > albeit very weak, *could* interfere with the aircraft's sensitive
> > navigation and control systems. Especially if every passenger fired up
> > one or more of those.
>
> And the steward(esse)s can't use a microwave oven? You are joking
what microwave oven ?

> aren't you? If the navigation and control systems really were that
> subject to RFI then they would never be allowed near an aircraft.
i could quote at least one official notice that deals with worldwide
airbirne radio systems and the possible susceptability to fm broadcasts
but i wont.

> I suppose you believe that the satellite phones have been constructed
> magically without oscillators? And the dozens of other transmitters,
> receivers, transponders etc. are all built without oscillators?
> Complete bullXXXX, Zoran. It's just another stupid bureaucratic
> rule, without rhyme or reason.
ah yes, the view classic opinion from uwe.ac.uk (sp??)

but if it was discovered that a fellow passengers equipment WAS doing
'funny things' to a nav-system on his vacation flight to somewhere,
then IT IS MY OPINION that the expression above would be different.

> M3ABC
hmmmmmm....

4525. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 00:13:06 UTC
From: fpkearn_twelve@rondomondo.eircom.tv.ie.au
Message-ID: <3df7d465.1360640@news.eircom.net>
Source record: 129364
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

"Andy McMullin" <Andy@rickham.net.NOSPAM> wrote:

> We have signs banning cell phones in our student computer rooms. Not because
> of the disturbance caused by ringing or by people talking on them. We ban
> them because they cause floppy disks to become corrupted in the disk drives.
> When the phones start transmitting to try and find their nearest cell (and
> if it is within 4 feet of the computer and the computer has a diskette
> inserted) there is a 75% probability of diskette corruption.

perhaps some of these signs should be installed in uwe.ac.uk ???

4526. Re: Imaginary Reflections?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 00:20:04 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <k3lfvu0037t8e82ih79ikku594pgb5pjjv@4ax.com>
Source record: 129365

On Wed, 11 Dec 2002 13:16:59 -0500, "Tarmo Tammaru"
<t-tammaru@home.com> wrote:

|Richard,
|
|We went through this kind of thing here some time ago. If you want to see
|reflections, transmit narrow pulses at a rep rate that is much slower than
|the propagation delay of the cable. Now connect a 'scope someplace near the
|source, and you can seee the reflection coming back if the cable is not
|terminated in Z0. If the source impedance is not Z0 either, you can see the
|pulse bounce back and forth until it finally damps out. This is a common
|method by which cable testers work, because it will tell you the distance to
|any discontinuety.

What you describe is a time-domain reflectometer (TDR) except in its
usual manifestation, like most lab instruments, the source Zo is
almost purely resistive and equal to 50 (75) ohm. Re-reflection in
these systems is undesirable.

Often the impedance calibration standard is a length of precision
air-line. With careful constuction the reflection coefficient is
lower that the best of resistive loads.

Wes N7WS

4527. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 00:31:21 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF7D8D9.6030002@ieee.org>
Source record: 129366
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Steve N8NM wrote:
> OK, let me see if I understand now...
>
> Using the I Smac hypothetical:
>
> Initially, the 100 watt transmitter attempts to deliver it's full
> output to the load, since it has no clue that the load is not matched
> to the source. When the energy hits the mismatch, a portion of it, 10
> watts, is reflected back to the source, 180 degrees out of phase.

Be very careful there. Energy is a scalar and doesn't have phase.
Energy is a scalar as is water. What's the phase of water flow?

The voltage and current from the source are in phase. The reflected
voltage and current are 180 degrees out of phase. If the voltages
add, the currents subtract and vice versa.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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4528. Re: Which moblie cb radio antenna with big coil is the best

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 00:37:21 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <99n3PYUcgFcq4cYryIotq=C8OYxX@4ax.com>
Source record: 129367

Recordking@Hotmail.com (DJboutit) wrote:

>
>I am think about get a monkey, dave made, terminator, road pro wasp,
>raptor, python, hornet, scorpion ra113 or a mr coily. Which antenna
>out of these works the best. I need like pros and cons on these
>antennas.

Why don't you ask in the CB groups? I don't think many hams use these antennas.

Bob
k5qwg

4529. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 00:50:21 UTC
From: fpkearn_twelve@rondomondo.eircom.tv.ie.au
Message-ID: <3df7dce7.3539268@news.eircom.net>
Source record: 129368
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

"Thomas C. Sefranek" <WA1RHP@ARRL.net> wrote:

[snip]

Sorry Thomas,
some of my previous post may appear in the wrong follow-up.

hopefully all will realise it...

asbestos gloves ready :-)

4530. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 00:56:41 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF7DEC9.2040703@ieee.org>
Source record: 129219

Roy Lewallen wrote:
> You, I, and Steve all understand conservation of energy, and none of us
> would ever propose to violate it. I read Steve's statement (that you
> quote) to say that the forward power can be calculated entirely from the
> forward traveling voltage and current waves. And that the result you get
> doesn't depend on the values of the reverse traveling waves, or the
> reverse or total power. That is, once you calculate the value of forward
> power from the forward voltage and current waves, you don't modify the
> result based on the values of the reverse traveling voltage and current
> waves, the applied power, or the reverse power. Don't you agree with this?

I agree but that's not what Steve said. Saying that "forward power can be
calculated" and saying that "forward power consists only of P1 and P2"
are completely different statements. The reason that the result doesn't
depend on the reverse traveling waves is that they are redundantly related
through the reflection coefficient. That fact doesn't make the energy in
the reverse traveling waves disappear from the universe.

Here is what you agreed with, Roy. "This DOES NOT require a corresponding
destructive interference process ..." This statement contradicts what Steve
said in his QEX article: "When the system reaches steady-state, the two
rearward traveling waves at the match point (rearward waves 1 and 2) are
180 degrees out of phase with respect to each other and a complete
cancellation of both waves occurs."

Wave cancellation and destructive interference are the same thing.
The destructive interference is between two reflected waves each possessing
energy. The energy can be canceled in the rearward direction but it cannot
be destroyed. In a transmission line, there is only one result - constructive
interference energy in the other direction, i.e. re-reflection of the energy
in those two waves which Steve will admit are reflected energy waves that he
simply chooses to forget about.

The components predicted by the superposition principle at a match point are:
1. Pfwd1(1-Rho^2), unreflected power, same as Steve's P1
2. Pref2(Rho^2), re-reflected power, same as Steve P2
3. Pfwd1(Rho^2), reflected power involved in wave cancellation
4. Pref2(1-Rho^2), reflected power involved in wave cancellation

Steve completely ignores the energy in the two waves involved in the wave
cancellation. That's a violation of the conservation of energy principle. Do
you agree that Steve should ignore half the energy components predicted by the
superposition principle and add the other two energy components to get the total
power? He obviously does that to disguise the fact that all the reflected power
is re-reflected. Do you really agree with Steve that
75 joules/sec + 8.33 joules/sec = 133.33 joules/sec?

I have a rebuttal to Steve's QEX article on my web page at:
http://www.qsl.net/w5dxp/waves2.htm
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4531. Re: Imaginary Reflections?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 00:59:44 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <2klfvucpr3acl7n0cotm5sbr8ciu1t4o5d@4ax.com>
Source record: 129220

On Wed, 11 Dec 2002 14:28:43 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

|TDR is a valuable technique with many applications. And although the
|principles of travelling voltage and current waves are the same for any
|waveform, the equations used for steady state sine wave analysis are
|simplifications of the general principles. So a great deal of care
|should be taken in extrapolating from what you observe on a TDR system
|to a steady state system. For example, a complex reflection coefficient
|can be calculated for a single frequency, and any terminating network
|having the same impedance at that frequency will produce exactly the
|same steady state reflection. But various networks all having the same
|impedance at one frequency will produce different time domain
|reflections (or different steady state reflections at different
|frequencies). Meaningful reflection coefficients for time domain
|analysis can only be derived from purely resistive terminations or
|discontinuities.

And even here, line attenuation will affect the apparent reflection
coefficient.
|
|Another very important difference between TDR and steady state systems
|is that the source of a TDR is generally turned off (for pulse-type
|TDRs) or in a quiescent state (for step-type TDRs) when the reflection
|returns. The result is that the reflection sees a passive load equal to
|the source impedance. If the source is matched, the reflection will be
|absorbed by the source resistance(*). In a steady state system, the
|source is actively producing a signal, so the reflected waves don't just
|see a passive resistance. This is the reason for the total re-reflection
|from the matched source in an example I've presented several times.

Another method of TDR is used by HP, Wiltron and I'm sure others in
their vector network analyzers.

A measurement is first made in the frequency domain using a fairly
wide frequency sweep. The measurement response is then converted into
the time domain by using FFT. The various discontinuities are then
presented separated in time.

There is a problem with this technique when relatively narrow-band
devices are measured since to get good time/distance resolution a wide
sweep is required. If the narrow-band device doesn't pass the
necessary frequencies then there is an error. There is similar error
with TDRs using fast rise-time steps or pulses too, however.

One useful feature of the FFT method is that gating can be used to "remove" selected time domain responses and then the FFT applied again to re-convert to the frequency domain.

Another feature of the technique is that, unlike conventional TDR, transmission (two-port or through) measurements are possible. I have done open-field antenna measurements using time domain gating to remove reflections from ground or other objects, or to position absorber material to attenuate the reflections.

It is not uncommon when making swept-frequency measurements to see nulls in the reflection coefficient. Whenever you see this it is a clue that there are multiple reflections in the system, separated by distance. As the frequency changes, the reflection coefficients phases change at different rates. When they are out of phase a null or partial null is created. *Our old friend "reflection cancellation" in action.) Moving a gate around can help identify or remove individual discontinuities.

Wes N7WS

4532. Re: All Band Wire Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 01:46:46 UTC
From: Scott Vanzandt <zandt@midsouth.rr.com>
Message-ID: <cfqfvuktitj5eit02eumohf98npoagvo7c@4ax.com>
Source record: 129221

On 11 Dec 2002 15:51:25 GMT, rickwiles1@aol.com (RickWiles1) wrote:

>During the spring of 2003 I hope to go to Haiti and wish to take along the
>minimal amout of radio equiptment so is they a simple wire antenna that can
>work several bands without a tuner? The bands I hope to work are 75, 20, 17,
>and maybe 15 meters. I may bring a tunner but the lest amount of stuff I have
>to take along the happier I'll be.

What about the Barker & Williamson BWD-1.8-30? 1.8 - 30 Continuous
without a tuner or so they advertise. I have heard good things about
these, but never used one myself. I sure have been looking at them,
though. You can read about them at
http://www.universal-radio.com/catalog/hamwire/4077.html

Scott
N2WMD

4533. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 01:52:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvfquidmf82m6a@corp.supernews.com>
Source record: 129222
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Be even more careful. Power is a function of time. In a steady-state sinusoidal system, its waveshape is that of a sine wave plus a DC term, with the sine wave frequency being twice the frequency of the voltage or current. Energy is the time integral of this quantity, so it's also a function of time. The energy waveform will be another sine wave of the same frequency as the power waveform but shifted 90 degrees, superimposed on a ramp.

The DC value of the power waveform is the average power. If the voltage and current are in phase, the entire power waveform is greater than zero, indicating that power is flowing only in one direction for the entire cycle, although its magnitude is going up and down sinusoidally, two cycles for every voltage or current cycle. If the voltage and current are 90 degrees out of phase, the power waveform will be centered around zero watts, meaning that power is flowing in one direction for half the time, and back the other way for the other half, resulting in no net power flow. The average in that case is zero, and the slope of the energy waveform ramp will be zero. That is, energy will flow back and forth in equal amounts each half cycle just like the power, but 90 degrees out of phase with it.

This is high school trigonometry, not rocket science, from a simple multiplication of v(t) times i(t), where both are sinusoids of the same frequency. (The integration for the energy waveform does require high school or freshman college calculus, or a little time spent with some graph paper.)

But this doen't make power and energy phasors, because phasors assume a particular frequency (that of the voltage and current), and the sinusoids involved with power and energy aren't at that frequency. But you could, if you had any reason to do so (and I can't think of one right off the bat), describe power completely as a DC term plus a sine wave of a particular amplitude and phase. But these waveforms are neither scalar nor phasor quantities as those terms are used in AC phasor analysis, and can't be mixed in with scalar and phasor quantities for analysis. (Unless, of course, you need to "prove" something that isn't so, in which case it's often useful -- essential, even -- to mix incompatible quantities and perform invalid operations.)

People often mean "average power" when they say "power", and you sometimes even see power "defined" as V*I*cos(theta), where theta is the phase angle between V and I. It's not. That's the *average* power. Power is v(t) times i(t), period. Average power is the DC term you get from the multiplication(*), and it's a constant in a steady state system. But

when you start talking about energy sloshing around in a transmission line, you have to deal with how energy and power vary with time. And you can bet your family joules that they do.

Roy Lewallen, W7EL

(*) The definition of average for any repetitive waveform is 1/T * Integral from t to t+T of W(t) dt, where W(t) is the waveform and T is the period. For power, W(t) = v(t)*i(t). This holds for any repetitive waveform of any shape. But for sinusoids, when you multiply v(t) and i(t) you get two terms, one a constant (DC) and the other a sine wave (of twice the V and I frequency). The average value of a zero-centered sine wave is zero, leaving the DC term as the average value by inspection. You'll get exactly the same result if you calculate it from the definition of average.

OC_CAM's Razor wrote:
> Steve N8NM wrote:
>
>> OK, let me see if I understand now...
>>
>> Using the I Smac hypothetical:
>>
>> Initially, the 100 watt transmitter attempts to deliver it's full
>> output to the load, since it has no clue that the load is not matched
>> to the source. When the energy hits the mismatch, a portion of it, 10
>> watts, is reflected back to the source, 180 degrees out of phase.
>
>
> Be very careful there. Energy is a scalar and doesn't have phase.
> Energy is a scalar as is water. What's the phase of water flow?
>
> The voltage and current from the source are in phase. The reflected
> voltage and current are 180 degrees out of phase. If the voltages
> add, the currents subtract and vice versa.

4534. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 01:58:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvfrb19q2jqbac@corp.supernews.com>
Source record: 129223

Sorry, Cecil, I'm not going to get sucked into whatever ongoing problem
with what you think Steve said in some article in the past.

And I'm satisfied I read Steve's statement correctly.

You'll have to scare up your posse somewhere else.

Roy Lewallen, W7EL

OC_CAM's Razor wrote:
> Roy Lewallen wrote:
>
>> You, I, and Steve all understand conservation of energy, and none of
>> us would ever propose to violate it. I read Steve's statement (that
>> you quote) to say that the forward power can be calculated entirely
>> from the forward traveling voltage and current waves. And that the
>> result you get doesn't depend on the values of the reverse traveling
>> waves, or the reverse or total power. That is, once you calculate the
>> value of forward power from the forward voltage and current waves, you
>> don't modify the result based on the values of the reverse traveling
>> voltage and current waves, the applied power, or the reverse power.
>> Don't you agree with this?
>
>
> I agree but that's not what Steve said. Saying that "forward power can be
> calculated" and saying that "forward power consists only of P1 and P2"
> are completely different statements. The reason that the result doesn't
> depend on the reverse traveling waves is that they are redundantly related
> through the reflection coefficient. That fact doesn't make the energy in
> the reverse traveling waves disappear from the universe.
>
> Here is what you agreed with, Roy. "This DOES NOT require a corresponding
> destructive interference process ..." This statement contradicts what Steve
> said in his QEX article: "When the system reaches steady-state, the two
> rearward traveling waves at the match point (rearward waves 1 and 2) are
> 180 degrees out of phase with respect to each other and a complete
> cancellation of both waves occurs."
>
> Wave cancellation and destructive interference are the same thing.
> The destructive interference is between two reflected waves each possessing
> energy. The energy can be canceled in the rearward direction but it cannot
> be destroyed. In a transmission line, there is only one result -
> constructive
> interference energy in the other direction, i.e. re-reflection of the
> energy

> in those two waves which Steve will admit are reflected energy waves
> that he
> simply chooses to forget about.
>
> The components predicted by the superposition principle at a match point
> are:
> 1. Pfwd1(1-Rho^2), unreflected power, same as Steve's P1
> 2. Pref2(Rho^2), re-reflected power, same as Steve P2
> 3. Pfwd1(Rho^2), reflected power involved in wave cancellation
> 4. Pref2(1-Rho^2), reflected power involved in wave cancellation
>
> Steve completely ignores the energy in the two waves involved in the wave
> cancellation. That's a violation of the conservation of energy
> principle. Do
> you agree that Steve should ignore half the energy components predicted
> by the
> superposition principle and add the other two energy components to get
> the total
> power? He obviously does that to disguise the fact that all the
> reflected power
> is re-reflected. Do you really agree with Steve that
> 75 joules/sec + 8.33 joules/sec = 133.33 joules/sec?
>
> I have a rebuttal to Steve's QEX article on my web page at:
> http://www.qsl.net/w5dxp/waves2.htm

4535. Re: Close range power transmission

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 02:29:43 UTC
From: Kent Haase <ijeh99@mb.sympatico.ca>
Message-ID: <pvSJ9.6436$kK1.29275@news1.mts.net>
Source record: 129224

How about sending it inductively, like in a transformer, but where the primary and secondary are 18 inches apart?

Kent VE4KEH

"Aron Bacs" <aronbjr@bellsouth.net> wrote in message news:X7LJ9.24628$X%3.10553@news.bellsouth.net...
> First, I am not a radio expert in any shape or form, so please excuse the
> following question!
>
> I need to transmit approx. 72 mW at a distance of about 18 inches (~1/2 m)
> and would
> like to stay at frequencies that are below the Mhz range if possible.
>
> I have tried looking up this type of info, but have been unable to find
> anything useful.
>
> Thanks for any help antenna, circuits, info...
>
> Aron
>
>
>

4536. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 02:35:33 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <agrfvu4nm0u8rb71shrgh0g4hkfjm0tv1l@4ax.com>
Source record: 129225
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On 11 Dec 2002 14:37:09 -0800, murphys@comcast.net (Steve N8NM) wrote:

> When the energy hits the mismatch, a portion of it, 10
>watts, is reflected back to the source, 180 degrees out of phase.
>This signal, being out of phase with the source, opposes 10 watts
>worth of source energy from subsequent waves

Hi Steve,

Odd this simple fact was overlooked by all - even with all the "take care" being taken.

The reflection at the plane of discontinuity enforces a phase shift, BUT that phase shift is not what appears at the source because the transmission line then imposes its own phase transform equal to the number of degrees long (electrical length) that the line is from the plane of reflection back to the plane of measurement (the source).

This has been a point our other Steve (VE9SRB) has been repeating to no end in terms of adding currents and voltages, not power. Powers add only at the most specific of conditions (yours is not one of those occasions).

> Further, once the
>reflected wave reaches the source, it is re-reflected back toward the
>load after undergoing another phase inversion
This is sheer speculation (that the source is not matched) and again ignores the line's contribution of reflected power back to the source, now a complex load (if not matched to the line). Even IF the source is mismatched, I dare say few here are competent to determine its actual value (although I've seen considerable speculation to force fit the arguments presented in too many threads through the years).

When both ends are mismatched (your and other's assumption) and the line length is not known, there is no way to accurately measure how much power is being developed in the system. This is known to Metrologists as Mismatch Uncertainty and equals ï¿½25% of the actual power for the simple expectation you portray (which, of course, is easily twice the power you think is in the reflected component).

Thought experiments of an unmatched source supporting complex power scenarios through unspecified transmission line lengths to another, remote mismatch are dead on arrival.

73's
Richard Clark, KB7QHC

4537. Re: Close range power transmission

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 03:26:41 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <NITJ9.13648$PF2.1016968@news20.bellglobal.com>
Source record: 129226

"Aron Bacs"
> I need to transmit approx. 72 mW at a distance
> of about 18 inches (~1/2 m)...
> I have tried looking up this type of info, but have
> been unable to find anything useful.

Your request is similar to "RF ID" systems.

Search:
www.google.com/search?q=RF+ID+power+transmission

The above link will take you to plenty of reading material. The .pdf files are often very good - typically 'White Papers' on the subject at hand. I haven't checked these results.

My car keys work on this sort of a system (I suspect higher power), but only about 1cm. The apartment building that we are currently living in has little tags that reach several inches. The garage door tag and a commuter pass both reach tens of feet, but have built-in batteries. (I seem to have a lot of these sorts of RF ID type tags.)

Can you integrate the power (capacitor) and use the 72mW just in a short burst ? I'm not an expert in this, but 72mW seems like it might be towards the high end for what you're proposing. I do know that the designers of RF ID systems will make huge efforts to reduce the power requirements.

If you've really interested, then you could search the US Patent Office (although many patents are intentionally as clear as mud). You'll need a TIFF reader to see the images.

www.uspto.gov
www.uspto.gov/patft/index.html
http://makeashorterlink.com/?W1ED52DB2

4538. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 03:46:13 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF80685.9060105@ieee.org>
Source record: 129227
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Roy Lewallen wrote:
> Be even more careful. Power is a function of time. In a steady-state
> sinusoidal system, its waveshape is that of a sine wave plus a DC term,
> with the sine wave frequency being twice the frequency of the voltage or
> current. Energy is the time integral of this quantity, so it's also a
> function of time. The energy waveform will be another sine wave of the
> same frequency as the power waveform but shifted 90 degrees,
> superimposed on a ramp.

Everything that Steve and I have been discussing involves average power.

> The DC value of the power waveform is the average power. If the voltage
> and current are in phase, the entire power waveform is greater than
> zero, indicating that power is flowing only in one direction for the
> entire cycle, although its magnitude is going up and down sinusoidally,
> two cycles for every voltage or current cycle. If the voltage and
> current are 90 degrees out of phase, the power waveform will be centered
> around zero watts, meaning that power is flowing in one direction for
> half the time, and back the other way for the other half, resulting in
> no net power flow. The average in that case is zero, and the slope of
> the energy waveform ramp will be zero. That is, energy will flow back
> and forth in equal amounts each half cycle just like the power, but 90
> degrees out of phase with it.

We don't have to worry about that in transmission lines. Forward power
has the voltage and current in phase and reflected power has the voltage
and current 180 degrees out of phase so V*I = power (no vars) because
cos(angle) is always +1 or -1 depending upon whether it is forward or
reflected power. Forward waves and reflected waves are transparent to
each other and pass unmolested until they both encounter an impedance
discontinuity where their wave components can cause interference.

> But this doen't make power and energy phasors, because phasors assume a
> particular frequency (that of the voltage and current), and the
> sinusoids involved with power and energy aren't at that frequency. But
> you could, if you had any reason to do so (and I can't think of one
> right off the bat), describe power completely as a DC term plus a sine
> wave of a particular amplitude and phase. But these waveforms are
> neither scalar nor phasor quantities as those terms are used in AC
> phasor analysis, and can't be mixed in with scalar and phasor quantities
> for analysis. (Unless, of course, you need to "prove" something that
> isn't so, in which case it's often useful -- essential, even -- to mix
> incompatible quantities and perform invalid operations.)

My point exactly, Roy. Do you agree that a forward wave of 61.24V at 1.225A has an associated average power of V*I=75 joules/sec? Do you agree that a forward wave of 20.41V at 0.408A has an associated average power of V*I=8.33 joules/sec? Do you agree with Steve that these two (and only two) waves can be added to get 81.65V at 1.63A with an associated power of V*I=133.33 joules/sec? Do you agree that 75 joules/sec + 8.33 joules/sec = 133.33 joules/sec?

> People often mean "average power" when they say "power", and you
> sometimes even see power "defined" as V*I*cos(theta), where theta is the
> phase angle between V and I. It's not. That's the *average* power. Power
> is v(t) times i(t), period. Average power is the DC term you get from
> the multiplication(*), and it's a constant in a steady state system. But
> when you start talking about energy sloshing around in a transmission
> line, you have to deal with how energy and power vary with time. And you
> can bet your family joules that they do.

Steve says the average power contained in a wave in a transmission line is V*I = V^2/Z0 = I^2*Z0. I am basing my discussion of power on his equation. It is obviously average power.
--
cheers, CAM http://www.qsl.net/w5dxp

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4539. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 03:47:24 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF806CC.2030800@ieee.org>
Source record: 129228

Roy Lewallen wrote:
> Sorry, Cecil, I'm not going to get sucked into whatever ongoing problem
> with what you think Steve said in some article in the past.
>
> And I'm satisfied I read Steve's statement correctly.

Roy, have you read Steve's QEX article?
--
cheers, CAM http://www.qsl.net/w5dxp

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-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4540. Re: Close range power transmission

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 03:55:20 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <7u1gvug9tn5umj22np5ajnjirmqa2n12ne@4ax.com>
Source record: 129229

On Wed, 11 Dec 2002 22:26:41 -0500, "J. Harvey"
<JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote:

>"Aron Bacs"
>> I need to transmit approx. 72 mW at a distance
>> of about 18 inches (~1/2 m)...
>> I have tried looking up this type of info, but have
>> been unable to find anything useful.
>
>Your request is similar to "RF ID" systems.
snip
>
>My car keys work on this sort of a system (I suspect higher power), but only
>about 1cm.

Hi Jeff,

You are off by three orders of magnitude in frequency:
>>at frequencies that are below the Mhz range if possible.

73's
Richard Clark, KB7QHC

4541. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 05:00:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvg60iepd43763@corp.supernews.com>
Source record: 129230

OC_CAM's Razor wrote:
> Roy Lewallen wrote:
>
>> Sorry, Cecil, I'm not going to get sucked into whatever ongoing
>> problem with what you think Steve said in some article in the past.
>>
>> And I'm satisfied I read Steve's statement correctly.
>
>
> Roy, have you read Steve's QEX article?

No.

Roy Lewallen, W7EL

4542. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 05:23:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvg7af98urkf8b@corp.supernews.com>
Source record: 129231
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

OC_CAM's Razor wrote:
> Roy Lewallen wrote:
>
>> Be even more careful. Power is a function of time. In a steady-state
>> sinusoidal system, its waveshape is that of a sine wave plus a DC
>> term, with the sine wave frequency being twice the frequency of the
>> voltage or current. Energy is the time integral of this quantity, so
>> it's also a function of time. The energy waveform will be another sine
>> wave of the same frequency as the power waveform but shifted 90
>> degrees, superimposed on a ramp.
>
>
> Everything that Steve and I have been discussing involves average power.
>
>> The DC value of the power waveform is the average power. If the
>> voltage and current are in phase, the entire power waveform is greater
>> than zero, indicating that power is flowing only in one direction for
>> the entire cycle, although its magnitude is going up and down
>> sinusoidally, two cycles for every voltage or current cycle. If the
>> voltage and current are 90 degrees out of phase, the power waveform
>> will be centered around zero watts, meaning that power is flowing in
>> one direction for half the time, and back the other way for the other
>> half, resulting in no net power flow. The average in that case is
>> zero, and the slope of the energy waveform ramp will be zero. That is,
>> energy will flow back and forth in equal amounts each half cycle just
>> like the power, but 90 degrees out of phase with it.
>
>
> We don't have to worry about that in transmission lines. Forward power
> has the voltage and current in phase and reflected power has the voltage
> and current 180 degrees out of phase so V*I = power (no vars) because
> cos(angle) is always +1 or -1 depending upon whether it is forward or
> reflected power. Forward waves and reflected waves are transparent to
> each other and pass unmolested until they both encounter an impedance
> discontinuity where their wave components can cause interference.

No, when V and I are in phase, the power is V * I * (1 + sin(omega *
t)). The *average* power is V * I. (where V and I are RMS values)

>> But this doen't make power and energy phasors, because phasors assume
>> a particular frequency (that of the voltage and current), and the
>> sinusoids involved with power and energy aren't at that frequency. But
>> you could, if you had any reason to do so (and I can't think of one
>> right off the bat), describe power completely as a DC term plus a sine

>> wave of a particular amplitude and phase. But these waveforms are
>> neither scalar nor phasor quantities as those terms are used in AC
>> phasor analysis, and can't be mixed in with scalar and phasor
>> quantities for analysis. (Unless, of course, you need to "prove"
>> something that isn't so, in which case it's often useful -- essential,
>> even -- to mix incompatible quantities and perform invalid operations.)
>
>
> My point exactly, Roy. Do you agree that a forward wave of 61.24V at 1.225A
> has an associated average power of V*I=75 joules/sec? Do you agree that a
> forward wave of 20.41V at 0.408A has an associated average power of
> V*I=8.33
> joules/sec?

Sure.

Do you agree with Steve that these two (and only two) waves
> can be added to get 81.65V at 1.63A with an associated power of V*I=133.33
> joules/sec? Do you agree that 75 joules/sec + 8.33 joules/sec = 133.33
> joules/sec?

Maybe. Depends. If I have two one volt voltage sources and a one ohm
resistor all in series, I can turn on one source and get 1 volt at 1 amp
for one watt in the resistor. I can turn that source off and turn the
other source on and get one watt in the resistor. Then I can turn both
on and get two volts and two amps for 4 watts in the resistor. So I've
added two "one watt" sources to get 4 watts. Pretty cool, huh?

>. . .

Roy Lewallen, W7EL

4543. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 06:20:24 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF82AA8.2030500@ieee.org>
Source record: 129232
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Roy Lewallen wrote:

> OC_CAM's Razor wrote:
>> Do you agree with Steve that these two (and only two) waves
>> can be added to get 81.65V at 1.63A with an associated power of
>> V*I=133.33
>> joules/sec? Do you agree that 75 joules/sec + 8.33 joules/sec = 133.33
>> joules/sec?
>
> Maybe. Depends. If I have two one volt voltage sources and a one ohm
> resistor all in series, I can turn on one source and get 1 volt at 1 amp
> for one watt in the resistor. I can turn that source off and turn the
> other source on and get one watt in the resistor. Then I can turn both
> on and get two volts and two amps for 4 watts in the resistor. So I've
> added two "one watt" sources to get 4 watts. Pretty cool, huh?

Fortunately, your sources are capable of variable power outputs. Unfortunately,
a wave in a transmission line with a fixed voltage, a fixed current, and
a fixed ratio (V/I=Z0) doesn't have the luxury of varying its associated power.
V*I is all the power there is. There ain't no more (and no less). Conservation
of energy rules. A battery adjusts its current to its load. An EM wave in a
transmission line cannot do that. The energy, along with Z0, dictates the
magnitude of the voltage and current. The energy cannot increase without
another energy source. A 75W wave cannot add to an 8.33W wave to get a
133.33W wave. An additional wave, in this case in the form of constructive
interference, must exist to supply the additional 50W. It's all explained
on my web page at: http://www.qsl.net/w5dxp/waves2.htm
I can see how someone who hasn't read Dr. Best's article would be at a
disadvantage in understanding the subject matter.

Steve's two and only two waves are constant power, constant voltage, and
constant current (all averages). He says that's all there is, two and only
two waves. His two and only two powers add up to more power than is available
in those two and only two waves.
--
cheers, CAM http://www.qsl.net/w5dxp

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4544. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 07:45:52 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <9fegvusrpfmj02vs7liumulnasmvaqpuqi@4ax.com>
Source record: 129233
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Wed, 11 Dec 2002 21:46:13 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Forward waves and reflected waves are transparent to
>each other and pass unmolested until they both encounter an impedance
>discontinuity where their wave components can cause interference.

Hi Cecil,

By forward waves and reflected waves, I presume you mean two
independent waves from independent sources.

This is certainly the tenor of past discussion.

By transparent I presume you mean to express that the two waves
are insensible to each other as are the two independent sources.

No one would expect anything other in a linear medium.

By impedance discontinuity, I presume you to mean a change in the
V/I as a function of medium change.

For waves in a transmission line, splicing a 75 Ohm cable to a 50 Ohm
cable should do the trick. For waves in the ï¿½ther, penetrating into
soil, water, trees, what-have-you is all around us.

By interference, I presume you to mean to express that the two
waves are capable of mixing and producing new frequency products.

No way. Or:

By interference, I presume you to mean to express that the two
waves are sensible to each other and no longer independent.

Just what this interpretation actually means escapes me (if I allow
myself to neglect all the other extraneous business you find necessary
to create the interference).

If I see the projection of the sun through a double slit against a
screen, I will see light and dark bars due to "interference." There
is absolutely nothing here that requires an impedance discontinuity.
There is no causal effect enforced on either of the two slits, one on
the other (they remain independent sources). The two waves are wholly
independent of each other before they fall on the screen, and after
they reflect (there is no magic zero time at the screen to change
anything going on here).

So, just what kind of "interference" were you thinking of?

73's
Richard Clark, KB7QHC

4545. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 07:58:58 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <e8ggvu4ahlq2lrpmqu6j3lo8kf6qb9gul8@4ax.com>
Source record: 129234
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Thu, 12 Dec 2002 00:20:24 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Fortunately, your sources are capable of variable power outputs. Unfortunately,
>a wave in a transmission line with a fixed voltage, a fixed current, and
>a fixed ratio (V/I=Z0) doesn't have the luxury of varying its associated power.

Hi Cecil,

Odd how you can fault Roy for his sources' variability and then deny
them their variability through a transmission line. What you describe
(the inability) is simply a function of time before the Steady State
is settled in (shorten your transmission lines if the time haunts
you). You could have as easily said the batteries were incapable for
their first few microseconds too.

73's
Richard Clark, KB7QHC

4546. Re: skelton cone antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 10:46:49 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF86919.85CD1C4A@cwis.net>
Source record: 129235

Bert,
Try doing a search for 'disk cone' antenna.
'Doc

4547. Can we acknowledge the real William of Ockham, please?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 11:26:54 UTC
From: "Copper.net" <davidw@copper.net>
Message-ID: <co_J9.293$Xd.213291@newsfeed.slurp.net>
Source record: 129236

Entia non sunt multiplicanda sine necessitate.

Btw, *Ockham* is a real village, in or near Surrey, England.

N3HE

4548. Re: All Band Wire Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 11:49:55 UTC
From: F8BOE Olivier <f8boeNOSPAM@free.fr>
Message-ID: <3df877e4$0$22979$626a54ce@news.free.fr>
Source record: 129237

$$How much$$ bill$ will co$t a Barker &William$on, $cott?

73'$ de F8BOE Olivier $$$?$?

4549. Re: Wideband magnetic loop please look

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 11:53:31 UTC
From: F8BOE Olivier <f8boeNOSPAM@free.fr>
Message-ID: <3df878bb$0$22991$626a54ce@news.free.fr>
Source record: 129238

Hohoho!

You should contact F2QG (Wincker-Force, or -France or -Fun... nevermind).
There's potential for a good European Antenna Troller Team!

Sure a dummy load is an ultimate, broad band minded, compact, perfectly
un-noisy solution too! Perhaps a little bit cheaper...

73 de F8BOE ....-.-

4550. Re: Pager QRM

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 12:13:32 UTC
From: scott <acepilot@bloomer.net>
Message-ID: <3DF87D6C.887A0E03@bloomer.net>
Source record: 129239

I assume that radio receives large portions of the VHF/UHF portions outside the ham bands? If so, that probably is a contributor to the interference. If it is a real annoyance, I would go with the DCI filters and buy a cheap scanner if you want to listen outside the ham bands.

Scott
N0EDV

Tom wrote:

> Hi,
>
> After moving to a new location, I'm getting full scale QRM on the 2
> meter band in various areas of the dial. I've already lowered my
> antenna, switched on the ATT and still the noise from pagers is
> terrible. The radio is a 2410H connected to a Diamond X200A with 100' of
> grounded Belden coax at each end.
>
> If I closing up the front end with a dual DCI, I lose all receive
> outside of 2m/70cm. I suppose I could place the antenna on the ground
> (I'm down to the last 10 feet of mask) or buy a different antenna.
>
> So I guess my question is there anything I can do to the Diamond itself?
> Horizontal polarization is out, heck, moving the antenna to a differnet
> location is out. I can't afford to replace the radio at this time
> (besides, a newer radio might make the problem worse) or afford a dual
> DCI or a spectrum analyser to hunt down the offending pager site.
> Besides I might be too tempted to throw a rock at it. Hehe.
>
> Thanks,
>
> Tom

--

Scott
http://corbenflyer.tripod.com
http://groups.yahoo.com/group/ParasolAirplanes
Building RV-4
Gotta Fly or Gonna Die!

4551. Re: Close range power transmission

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 13:05:38 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <zQ%J9.5104$IL6.1032763@news20.bellglobal.com>
Source record: 129240

>> My car keys work on this sort of a system
>> (I suspect higher power), but only about 1cm.

"Richard Clark"
> You are off by three orders of magnitude in frequency:
>>>...at frequencies that are below the Mhz range if possible.

Actually, IIRC, my car key receives (power and signal) at about 100kHz. The key doesn't need to contain a battery. Some do - but *only* for the remote control functions - both RF transmit plus an IR LED (the extra thin wallet backup key doesn't contain a battery).

The incoming 100kHz signal is modulated with a rolling code, the key thinks about it and responds (via an LED) with the appropriate coded signal back. If everything matches, then you can start the car. It is about as secure as is practical and even results in a discount on the insurance. On the other hand, a replacement key costs several hundreds, plus the labour to program it into the system.

Anyway, pretty sure my car key is getting the power+signal at about 100kHz. As I mentioned, only about 1cm. Pretty much a 'transformer' system.

IIRC, there are some other "RF ID" systems that use the same frequency range (sub-MHz) over longer ranges.

PS: he did write "if possible", so I didn't think other higher frequencies commonly used in RF ID systems would be automatically disqualified as a potentially helpful answer. His biggest problem will be the 72mW over 18 inches - assuming that he wants a low power system.

4552. Re: Pager QRM

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 13:36:16 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DF890D4.5090407@tampabay.rr.com>
Source record: 129241

hey tom
i would suggest a Par electronics filter it will cut out everything but
2/70 and when you need to go out of band take it off
there website is www.par-electronics.com

Tom wrote:
> Hi,
>
> After moving to a new location, I'm getting full scale QRM on the 2
> meter band in various areas of the dial. I've already lowered my
> antenna, switched on the ATT and still the noise from pagers is
> terrible. The radio is a 2410H connected to a Diamond X200A with 100' of
> grounded Belden coax at each end.
>
> If I closing up the front end with a dual DCI, I lose all receive
> outside of 2m/70cm. I suppose I could place the antenna on the ground
> (I'm down to the last 10 feet of mask) or buy a different antenna.
>
> So I guess my question is there anything I can do to the Diamond itself?
> Horizontal polarization is out, heck, moving the antenna to a differnet
> location is out. I can't afford to replace the radio at this time
> (besides, a newer radio might make the problem worse) or afford a dual
> DCI or a spectrum analyser to hunt down the offending pager site.
> Besides I might be too tempted to throw a rock at it. Hehe.
>
> Thanks,
>
>
> Tom
>

4553. Re: Pager QRM

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 13:56:24 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3DF8923E.2DC8C845@verizon.net>
Source record: 129242

Tom wrote:

> Hi,
>
> After moving to a new location, I'm getting full scale QRM on the 2
> meter band in various areas of the dial. I've already lowered my
> antenna, switched on the ATT and still the noise from pagers is
> terrible. The radio is a 2410H connected to a Diamond X200A with 100' of
> grounded Belden coax at each end.
>
> If I closing up the front end with a dual DCI, I lose all receive
> outside of 2m/70cm. I suppose I could place the antenna on the ground
> (I'm down to the last 10 feet of mask) or buy a different antenna.
>
> So I guess my question is there anything I can do to the Diamond itself?
> Horizontal polarization is out, heck, moving the antenna to a differnet
> location is out. I can't afford to replace the radio at this time
> (besides, a newer radio might make the problem worse) or afford a dual
> DCI or a spectrum analyser to hunt down the offending pager site.
> Besides I might be too tempted to throw a rock at it. Hehe.
>
> Thanks,
>
> Tom

Our notch filters are transparent to 6M, 2M and 70cM (insertion loss under 0.4dB) while placing a >50dB notch at the pager frequencies. Stocked by A.E.S., HRO and Universal Radio or direct.

Dale W4OP
for PAR ELectronics, Inc.

4554. Re: Pager QRM

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 14:19:51 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <se6hvu08jdlar33chvi5q73v0ig7fm3u0e@4ax.com>
Source record: 129243

Tom, we had a similar problem at work with 929 MHz paging and a telemetry system receiver on 928.8 MHz. There was no way we could possibly notch the 929 MHz stuff with a cavity and still hear anything. So we changed antennas.

Get yourself a good, horizontally polarized antenna. Make it a yagi and pay special attention to ensuring that the antenna is properly balanced and matched. You'll get around 20 dB of rejection of pager signal right there, more if you point away from the pager antennas.

You might also take a close look at how you have grounded the antenna. Make sure all your ground connections are tight, clean, and properly protected from oxidation.

Good Luck!

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

4555. Reverse Power = SWR?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 14:26:21 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <f01K9.307$Xd.242316@newsfeed.slurp.net>
Source record: 129244

Previous post (buried deeeep in an earlier thread):

>"But you can remove the transmission line entirely, so that
>you have no reverse power, and no forward or reverse travelling
>waves, and yet have exactly the same dissipation in the source
>and load resistors, and power delivered by the source."

This same individual echoes this concept in another post:

> "Yet if you connect the transmitter to a 450 ohm load
> through a half wavelength of 450 ohm line, the line's SWR is 1:1, the
> reverse power is zero, and the transmitter will be very unhappy. It's
> unhappiness has nothing to do with SWR or reverse power -- it's unhappy
> because it's seeing a 450 ohm impedance. The transmitter's SWR meter
> will incorrectly report an SWR of 9:1, even though the transmission line
> SWR is really 1:1."

Reverse power is not zero from the transmitter's perspective. It is zero only at the interface of the line and antenna, and consequently also zero in any length of the line itself. The transmitter is unhappy because power is being reflected back into it by the 9:1 mismatch at its output terminals, rather than being sufficiently accepted by what is connected there.

Reflected power and forward power combine as a vector sum, and the max value of this sum can damage components not rated for it. Reflected power does not have to travel through some length of transmission line to create "standing waves" to damage components. Standing waves do not damage components, excess power does. Standing waves are just an artifact of the two RF waveforms traveling in opposite directions through a sufficient electrical length of line. Whether or not they develop is irrelevant to the amount of damage that the reflected power may cause, when added to forward power. The reflected power from the 9:1 mismatch in the above situation likely will damage the transmitter (NOT the line or antenna). The tx SWR meter SHOULD see this high mismatch, and protect the tx. The tx meter is NOT incorrect, it is telling the truth about what is connected to the tx output connector.

It doesn't matter to the tx if a given mismatch is bolted right on the tx output connector, or produced by an antenna-to-coax junction 1,000 feet up a tower. The potential for damage to the tx by the addition of that reflected power to the forward power will be the same for both cases.

Richard Fry

4556. Re: Pager QRM

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 14:37:25 UTC
From: Andy KC2SSB <vhfradiobuff@yahoo.com>
Message-ID: <rn7hvu423p66smcs12068a7rmpfmlpf7uj@4ax.com>
Source record: 129245

On Thu, 12 Dec 2002 09:19:51 -0500, Jake Brodsky <frussle@erols.com>
wrote:

>>So I guess my question is there anything I can do to the Diamond itself?
>>Horizontal polarization is out, heck, moving the antenna to a differnet
>>location is out. I can't afford to replace the radio at this time >
>
>Get yourself a good, horizontally polarized antenna. Make it a yagi
>and pay special attention to ensuring that the antenna is properly
>balanced and matched. You'll get around 20 dB of rejection of pager
>signal right there, more if you point away from the pager antennas.

"Things that make you go 'Hmmm...'"
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com

4557. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 14:39:00 UTC
From: richardharrison@webtv.net
Message-ID: <19269-3DF89F84-80@storefull-2312.public.lawson.webtv.net>
Source record: 129247

Richard Clark, KB7QHC wrote:
"And the SWR meter is between the isolator and the load?"

These forward/reflected power discussions come around again and again. Related items introduced to support assertions result in confusion, judging from replies which follow.

Bird Electronic Corporation published a "Bird Technical Series". I long ago asked Bird for copies of the series and they sent them to me.

In the paper called VSWR, Bird says: "A simple algebraic subtraction (Pfwd - Prefl) yields the net power delivered to the load."

Let that sink in, and everything it means. If it were untrue, the Bird wattmeter would not work as it does.

Many assertions made in this thread don`t square with the simple equation Bird gives. Bird`s proposition is simple: A near lossless line and the power delivered to the load is the same as that delivered by the transmitter to the line. Statements contrary to the above in the macro, steady-state sense are simply wrong.

Want to know how transmission lines and the Bird wattmeter work? Write to Bird and ask for the "Technical Series". I hope they still have copies.,

Best regards, Richard Harrison, KB5WZI

4558. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 14:44:16 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <2h1K9.308$Xd.247356@newsfeed.slurp.net>
Source record: 129246

First below is a paste from a previous post buried deeeep in this thread.
I am not threading this response to it because of the respect I have for the
poster, and the fact that the message is the issue, not the messenger.

Richard Fry

>"But you can remove the transmission line entirely, so that
>you have no reverse power, and no forward or reverse travelling
>waves, and yet have exactly the same dissipation in the source
>and load resistors, and power delivered by the source."

This same individual echoes this concept in another post:

> "Yet if you connect the transmitter to a 450 ohm load
> through a half wavelength of 450 ohm line, the line's SWR is 1:1, the
> reverse power is zero, and the transmitter will be very unhappy. It's
> unhappiness has nothing to do with SWR or reverse power -- it's unhappy
> because it's seeing a 450 ohm impedance. The transmitter's SWR meter
> will incorrectly report an SWR of 9:1, even though the transmission line
> SWR is really 1:1."

Reverse power is not zero from the transmitter's perspective. It is zero
only at the interface of the line and antenna, and consequently also zero in
any length of the line itself. The transmitter is unhappy because power is
being reflected back into it by the 9:1 mismatch at its output terminals,
rather than being sufficiently accepted by what is connected there.

Reflected power and forward power combine as a vector sum, and the max value
of this sum can damage components not rated for it. Reflected power does
not have to travel through some length of transmission line to create
"standing waves" to damage components. Standing waves do not damage
components, excess power does. Standing waves are just an artifact of the
two RF waveforms traveling in opposite directions through a sufficient
electrical length of line. Whether or not they develop is irrelevant to the
amount of damage that the reflected power may cause, when added to forward
power. The reflected power from the 9:1 mismatch in the above situation
likely will damage the transmitter (NOT the line or antenna). The tx SWR
meter SHOULD see this high mismatch, and protect the tx. The tx meter is
NOT incorrect, it is telling the truth about what is connected to the tx
output connector.

It doesn't matter to the tx if a given mismatch is bolted right on the tx
output connector, or produced by an antenna-to-coax junction 1,000 feet up a
tower. The potential for damage to the tx by the addition of that reflected
power to the forward power will be the same for both cases.

4559. computer program for antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 15:38:21 UTC
From: Bill Grimwood <bill@grimwood.net>
Message-ID: <uvhemrmgesrmbc@corp.supernews.com>
Source record: 129256

I am new to radio and do not have the best electronics or math background.
I need a simple to use computer program for design of a 2 meter yagi
antenna. What do you recommend?

Thanks

Bill Grimwood
K1WEG

4560. Re: SWR Bridge component values-Henry 2K4

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 15:42:22 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3df8b490_3@news1.prserv.net>
Source record: 129248

"Dick" <rhughes33@cableone.net> wrote in message
news:bkifvuk19a5flu3uljp44o24f1i4iv3f3b@4ax.com...
> Why not just contact RadioDan? http://www.radiodan.com/ He is the
> distributor for Henry amplifiers. That model is no longer in
> production, but I'm sure he can answer your questions.
>
> Dick - W6CCD

Dick:

You're sure, huh? Well, here is his response. This is why I was looking for someone who had been into one of these. Talk about passing the buck! I admit, he did respond immediately, but I need a repairman, instead of a salesman. Or, the original designer, which I *may* learn from Ted Henry, if the designer is still around.

Quote:
****
Hi George,

Beyond what is in the manual? No, I don't.

Perhaps Ted Henry might have more info.
Contact him at henryradio@earthlink.net

73, Dan Magro W7RF, (President WARC 1999, member SCDXC, SCCC)
Manufacturers Rep & Distributor for HENRY RF Power Amplifiers.
BIRD Power Measuring equipment, Still THE most accurate in the world!
Tohtsu coaxial relays, Samlex 25A power supply, IIX welded steel accys
www.radiodan.com <http://www.radiodan.com/> RFpower@radiodan.com
<mailto:RFpower@radiodan.com> A trip to our web site is worth the click!
****
Unquote
--
Crazy George
Remove NO and SPAM from return address

4561. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 16:01:32 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF8B2DC.1070007@ieee.org>
Source record: 129249
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Richard Clark wrote:
> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>Forward waves and reflected waves are transparent to
>>each other and pass unmolested until they both encounter an impedance
>>discontinuity where their wave components can cause interference.
>
> By forward waves and reflected waves, I presume you mean two
> independent waves from independent sources.

Nope, they are from the one and only source in the system and are coherent.

> By interference, I presume you to mean to express that the two
> waves are sensible to each other and no longer independent.
>
> Just what this interpretation actually means escapes me (if I allow
> myself to neglect all the other extraneous business you find necessary
> to create the interference).

Being "sensible" to each other is what allows destructive interference
between components of two different coherent waves traveling in the same
direction.

The basic question is: What happens to the energy in two waves that
engage in destructive interference such that the total voltage goes
to zero and the total current goes to zero? In the example presented,
the energy traveling toward the source obviously goes to zero along
with the voltage and current. But since energy cannot be destroyed,
where does that energy go?

> If I see the projection of the sun through a double slit against a
> screen, I will see light and dark bars due to "interference." There
> is absolutely nothing here that requires an impedance discontinuity.

There are certainly other kinds of interference rather than two out-of-
phase waves traveling in the same direction in a transmision line. What
is your point?

> There is no causal effect enforced on either of the two slits, one on
> the other (they remain independent sources). The two waves are wholly
> independent of each other before they fall on the screen, and after
> they reflect (there is no magic zero time at the screen to change
> anything going on here).

This is obviously not the kind of interference being discussed here.
The kind of interference being discussed here results in the loss
of identity of the two superposed waves thus creating a new wave. We

are talking in particular about destructive interference of two coherent reflected waves traveling in the same direction, the same thing that happens with non-glare picture glass.

> So, just what kind of "interference" were you thinking of?

The interference established by two coherent waves traveling in the same direction in a transmission line. Please reference: http://www.qsl.net/w5dxp/light.gif
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4562. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 16:07:35 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF8B447.6070108@ieee.org>
Source record: 129250
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Richard Clark wrote:
> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>
>
>>Fortunately, your sources are capable of variable power outputs. Unfortunately,
>>a wave in a transmission line with a fixed voltage, a fixed current, and
>>a fixed ratio (V/I=Z0) doesn't have the luxury of varying its associated power.
>
> Odd how you can fault Roy for his sources' variability and then deny
> them their variability through a transmission line. What you describe
> (the inability) is simply a function of time before the Steady State
> is settled in (shorten your transmission lines if the time haunts
> you). You could have as easily said the batteries were incapable for
> their first few microseconds too.

In Dr. Best's analysis, his two sources are coherent waves, not transmitters
and not batteries. Dr. Best's asserts that the power in his source waves is
fixed at V^2/Z0 = I^2*Z0 = V*I? Do you agree with Dr. Best?
--
cheers, CAM http://www.qsl.net/w5dxp

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-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4563. Re: Reverse Power = SWR?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 16:15:15 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF8B613.9060903@ieee.org>
Source record: 129252

Richard Fry wrote:
> Reverse power is not zero from the transmitter's perspective. It is zero
> only at the interface of the line and antenna, and consequently also zero in
> any length of the line itself. The transmitter is unhappy because power is
> being reflected back into it by the 9:1 mismatch at its output terminals,
> rather than being sufficiently accepted by what is connected there.

Exactly, Richard. When one chooses to use the reflection model, one must
stick with the reflection model throughout the entire analysis and not
switch to the circuit model in mid-analysis.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4564. Re: Antenna switch

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 16:15:35 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92E269744C4ABmichalkunyahoocom@128.233.3.7>
Source record: 129251

Thanks, I think I will try that :)

\
Bill M <""\"exray\"\"\"@n-o- .caribe.net> wrote in
news:uvesdcedc79jff@corp.supernews.com:

> Michalkun wrote:
>> Yup I checked ten tec and nothing is there about this stuff.
>> Winradio has a plan for one but I'm not an expert in electronics so I
>> have no idea how to put it together.
>> Perhaps I will need to make a simple manual switch.
>> Any idea what parts should I use to minimize the signal loss?
>
> Just use an off-the-shelf rotary switch mounted in a metal box with
> sockets. The loss will be negligible.
>
> -BM
>
>

4565. Antenna feed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 16:17:28 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92E269C59B73michalkunyahoocom@128.233.3.7>
Source record: 129253

Does anyone know if I feed my 20 meter long dipole antenna with 40 meter long jacketed copper wire will be OK? Does the length of the feeding wire affect anything?

4566. Re: Antenna feed

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 16:22:52 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF8B7DC.6030500@ieee.org>
Source record: 129254

Michalkun wrote:
> Does anyone know if I feed my 20 meter long dipole antenna with 40 meter
> long jacketed copper wire will be OK? Does the length of the feeding wire
> affect anything?

Is your "40 meter long jacketed copper wire" a single wire? If so,
you cannot consider it to be a transmission line and must consider
it to be part of your antenna. If it's a single wire, it will have
a large effect.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4567. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 16:35:29 UTC
From: Geoff <swooutdoors@hotmail.com>
Message-ID: <lV2K9.32072$hw3.5053@sccrnsc04>
Source record: 129255
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

"Zoran Brlecic" <WA7AA@attbi.com> wrote in message
news:3DF7B3A3.8010804@attbi.com...
> Geoff wrote:
>
> >>There is a good reason most of the hospitals don't allow cells in the
> >>building or at least in the vicinity of the intensive care units. Or is
> >>that just another bureaucratic conspiracy?
> >>
> >>
> >>73 ... Zoran WA7AA
> >
> >
> > It is funny that you mentin hospitals. My girlfriend is a nurse in the
ICU
> > of Baylor Medical in Grapevine, Texas. They have signs all over the
floor
> > (and every other floor for that matter) prohibiting the use of cell
phones.
> > Now, according to the chief resident the signs are there because of the
> > noise, lack of consideration, and general disturbance the phones
ringing
> > and people using them cause. He didnt mention any other reasons. So dont
> > speak about what you dont know....
>
>
> :-)))))) Wow, I guess that leaves me speechless, doesn't it? Since the
> chief resident from some Hicksville in Texas apparently doesn't have a
> clue why hospitals ban the use of cellphones in the critical areas, this
> testimonial from an idiot doctor somehow applies to everybody everywhere.
>
> Too bad your girlfriend didn't ask a night janitor or a parking garage
> attendant.
>
> WA7AA

LOL, Hicksville??? Now you are showing your ignorance

4568. Re: computer program for antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 17:01:09 UTC
From: Bill Grimwood <bill@grimwood.net>
Message-ID: <uvhji3kjsf9m9b@corp.supernews.com>
Source record: 129266

Thanks

Bill Grimwood

"

4569. Re: computer program for antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 17:24:26 UTC
From: Eskay <ve3juaNO@SPAMrac.ca>
Message-ID: <3DF8C64A.10003@SPAMrac.ca>
Source record: 129259

MMANA and 4nec2 in that order of simplicity..
Look in Google for them..
Eskay..

Bill Grimwood wrote:
> I am new to radio and do not have the best electronics or math background.
> I need a simple to use computer program for design of a 2 meter yagi
> antenna. What do you recommend?
>
> Thanks
>
> Bill Grimwood
> K1WEG
>
>
>

4570. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 17:24:48 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <0chhvuok5vt37fqoinofbg01569qpnstl7@4ax.com>
Source record: 129257
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Thu, 12 Dec 2002 10:01:32 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Richard Clark wrote:
>> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>>Forward waves and reflected waves are transparent to
>>>each other and pass unmolested until they both encounter an impedance
>>>discontinuity where their wave components can cause interference.
>>
>> By forward waves and reflected waves, I presume you mean two
>> independent waves from independent sources.
>
>Nope, they are from the one and only source in the system and are coherent.

This may be a common condition, however it matches none of your other
discussion.

>
>> By interference, I presume you to mean to express that the two
>> waves are sensible to each other and no longer independent.
>>
>> Just what this interpretation actually means escapes me (if I allow
>> myself to neglect all the other extraneous business you find necessary
>> to create the interference).
>
>Being "sensible" to each other is what allows destructive interference
>between components of two different coherent waves traveling in the same
>direction.

You certainly missed the curve on that one. As I said, I would only
consider it if I were to ignore all the other business that is wholly
unnecessary to this "interference."

>
>> If I see the projection of the sun through a double slit against a
>> screen, I will see light and dark bars due to "interference." There
>> is absolutely nothing here that requires an impedance discontinuity.
>
>There are certainly other kinds of interference rather than two out-of-
>phase waves traveling in the same direction in a transmision line. What
>is your point?

Certain kinds? Do I have to ask you what kinds? It is all too tiring
to have to engage in 6 or 7 rounds to complete one simple answer.
Again you had a choice to talk around it or simply name ONE.

>
>> There is no causal effect enforced on either of the two slits, one on
>> the other (they remain independent sources). The two waves are wholly
>> independent of each other before they fall on the screen, and after
>> they reflect (there is no magic zero time at the screen to change
>> anything going on here).
>
>This is obviously not the kind of interference being discussed here.
>The kind of interference being discussed here results in the loss
>of identity of the two superposed waves thus creating a new wave. We
>are talking in particular about destructive interference of two coherent
>reflected waves traveling in the same direction, the same thing that
>happens with non-glare picture glass.

Interference of two waves are not being discussed? Well, then there
is no point in further discussion.

73's
Richard Clark, KB7QHC

4571. Re: computer program for antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 17:25:52 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <u0hhvu0cn92s899j9hdu14i1ob7aced6rf@4ax.com>
Source record: 129258

On Thu, 12 Dec 2002 09:38:21 -0600, "Bill Grimwood"
<bill@grimwood.net> wrote:

|I am new to radio and do not have the best electronics or math background.
|I need a simple to use computer program for design of a 2 meter yagi
|antenna. What do you recommend?

If you want to actually build an antenna for immediate use, I
recommend that you follow a published design. The ARRL Antenna Book
has a family of such designs.

If you want to design antennas as an intellectual exercise then there
are a number of CAD programs that can be used.

There are commercial programs such as: EZNEC, NEC-WIN, Antenna Model,
etc.

There are a number of freeware programs that mostly use the NEC-2
engine. These include: MultiNEC and 4nec2. MMANA is also freeware
and uses the Mininec engine. A google search will locate all of
these.

Wes N7WS

4572. Re: SWR Bridge component values-Henry 2K4

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 17:27:35 UTC
From: Dick <rhughes33@cableone.net>
Message-ID: <0lhhvu0ml9tuttphnjsbd4k9pgid84n0rc@4ax.com>
Source record: 129260

That's interesting as I always thought he repaired as well as sold the amplifiers. Another place to try is the Henry mail reflector at qth.com. Lots of Henry owners on the reflector.

Dick - W6CCD

On Thu, 12 Dec 2002 09:42:22 -0600, "Crazy George" <munschNO@attglobal.net.SPAM> wrote:

>"Dick" <rhughes33@cableone.net> wrote in message
>news:bkifvuk19a5flu3uljp44o24f1i4iv3f3b@4ax.com...
>> Why not just contact RadioDan? http://www.radiodan.com/ He is the
>> distributor for Henry amplifiers. That model is no longer in
>> production, but I'm sure he can answer your questions.
>>
>> Dick - W6CCD
>
>Dick:
>
>You're sure, huh? Well, here is his response. This is why I was looking
>for someone who had been into one of these. Talk about passing the buck! I
>admit, he did respond immediately, but I need a repairman, instead of a
>salesman. Or, the original designer, which I *may* learn from Ted Henry, if
>the designer is still around.

4573. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 17:34:08 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <88hhvug14ileu3jvbegen9g6a54ocsttru@4ax.com>
Source record: 129261
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Thu, 12 Dec 2002 10:07:35 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Richard Clark wrote:
>> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>
>>
>>>Fortunately, your sources are capable of variable power outputs. Unfortunately,
>>>a wave in a transmission line with a fixed voltage, a fixed current, and
>>>a fixed ratio (V/I=Z0) doesn't have the luxury of varying its associated power.
>>
>> Odd how you can fault Roy for his sources' variability and then deny
>> them their variability through a transmission line. What you describe
>> (the inability) is simply a function of time before the Steady State
>> is settled in (shorten your transmission lines if the time haunts
>> you). You could have as easily said the batteries were incapable for
>> their first few microseconds too.
>
>In Dr. Best's analysis, his two sources are coherent waves, not transmitters
>and not batteries. Dr. Best's asserts that the power in his source waves is
>fixed at V^2/Z0 = I^2*Z0 = V*I? Do you agree with Dr. Best?

Hi Cecil,

I don't see how that answers your choice to limit Roy's sources in
transmission lines. That is two for two where you simply ignore the
question and steamroller your agenda. No dialog in that.

73's
Richard Clark, KB7QHC

4574. Re: SWR Bridge component values-Henry 2K4

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 17:38:03 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <KMn4PZMv1V2=lUqrDM31o+8X=BSr@4ax.com>
Source record: 129262

"Crazy George" <munschNO@attglobal.net.SPAM> wrote:

You might try http://www.w7fg.com or http://www.manualman.com

Bob
k5qwg

>"Dick" <rhughes33@cableone.net> wrote in message
>news:bkifvuk19a5flu3uljp44o24f1i4iv3f3b@4ax.com...
>> Why not just contact RadioDan? http://www.radiodan.com/ He is the
>> distributor for Henry amplifiers. That model is no longer in
>> production, but I'm sure he can answer your questions.
>>
>> Dick - W6CCD
>
>Dick:
>
>You're sure, huh? Well, here is his response. This is why I was looking
>for someone who had been into one of these. Talk about passing the buck! I
>admit, he did respond immediately, but I need a repairman, instead of a
>salesman. Or, the original designer, which I *may* learn from Ted Henry, if
>the designer is still around.
>
>Quote:
>**********
>Hi George,
>
>Beyond what is in the manual? No, I don't.
>
>Perhaps Ted Henry might have more info.
>Contact him at henryradio@earthlink.net
>
>73, Dan Magro W7RF, (President WARC 1999, member SCDXC, SCCC)
>Manufacturers Rep & Distributor for HENRY RF Power Amplifiers.
>BIRD Power Measuring equipment, Still THE most accurate in the world!
>Tohtsu coaxial relays, Samlex 25A power supply, IIX welded steel accys
>www.radiodan.com <http://www.radiodan.com/> RFpower@radiodan.com
><mailto:RFpower@radiodan.com> A trip to our web site is worth the click!
>**********
>Unquote

4575. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 17:43:15 UTC
From: Barking Dog Amato <barkingdogamato@eternal.net>
Message-ID: <4358076CAF023DE6.1F7C8AF069363CC4.8318E67943B71EF6@lp.airnews.net>
Source record: 129263
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

In the early 90's there were several manufacture sponsored studies done on the safety of cell phones in different environments. The study was done in relationship to possible legal action if there were any problems or accidents that would leave the phone manufactures liable. I was working for Motorola CIG at the time and got to see the results.

All airplanes were shown to be somewhat affected by cell phone emissions, generally in the communications area, but not limited to that area. The planes worst affected were early model 737's, L1011's and first model Airbus's, according to one engineer AB was worried that they could crash due to cell phone usage as they are dependant on computer control. All the airplane manufactures supposedly issued modification procedures and supposedly all problem areas were corrected within three years. However the chances of problems caused by cell phone are deemed too high a danger so the are still banned during flight. And the fact that changes to both phones and planes make the probability of a problem too great.

As for hospitals same basic problems were shown, they can interfere with medical equipment. I was in the emergency room a while back when an accident victim was brought in. The cop decided to use his phone to call the station and it sent much of the equipment out of control till he had it forcibly removed and turned off. The hospital was planning on prosecuting the cop last I heard, as a heart patient nearly died because of this. The problems is that much medicial equipment isn't properly shielded for all levels of RF emissions.

The worst offenders phone wise are analog phones, tri-mode GSM (don't know why the tri-mode makes a difference) original CDMA phones in that order. The newer CDMA and TDMA phones are supposed to be the safest.

On Thu, 12 Dec 2002 16:35:29 GMT, "Geoff" <swooutdoors@hotmail.com> wrote:

>
>"Zoran Brlecic" <WA7AA@attbi.com> wrote in message
>news:3DF7B3A3.8010804@attbi.com...
>> Geoff wrote:
>>
>> >>There is a good reason most of the hospitals don't allow cells in the
>> >>building or at least in the vicinity of the intensive care units. Or is
>> >>that just another bureaucratic conspiracy?
>> >>

>> >>
>> >>73 ... Zoran WA7AA
>> >
>> >
>> > It is funny that you mentin hospitals. My girlfriend is a nurse in the
>ICU
>> > of Baylor Medical in Grapevine, Texas. They have signs all over the
>floor
>> > (and every other floor for that matter) prohibiting the use of cell
>phones.
>> > Now, according to the chief resident the signs are there because of the
>> > noise, lack of consideration, and general disturbance the phones
>ringing
>> > and people using them cause. He didnt mention any other reasons. So dont
>> > speak about what you dont know....
>>
>>
>> :-)))))) Wow, I guess that leaves me speechless, doesn't it? Since the
>> chief resident from some Hicksville in Texas apparently doesn't have a
>> clue why hospitals ban the use of cellphones in the critical areas, this
>> testimonial from an idiot doctor somehow applies to everybody everywhere.
>>
>> Too bad your girlfriend didn't ask a night janitor or a parking garage
>> attendant.
>>
>> WA7AA
>
>LOL, Hicksville??? Now you are showing your ignorance
>

4576. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 17:45:15 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <sdihvuk9setkieh2ms0md43otqo1d7bajv@4ax.com>
Source record: 129264

On Thu, 12 Dec 2002 08:39:00 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>Richard Clark, KB7QHC wrote:
>"And the SWR meter is between the isolator and the load?"
>
Hi Richard,

Why did you take the trouble to quote my question and then ignore it?
That seems to be a bug going around lately. If you don't know, say
so. If you do, what's the hesitation?

73's
Richard Clark, KB7QHC

4577. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 17:49:21 UTC
From: gaschafer@attbi.com
Message-ID: <3df8cb52.4916842@netnews.attbi.com>
Source record: 129265

On Fri, 06 Dec 2002 16:51:33 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Ok, here's a case for consideration.
>
>A = a generator consisting of a Thevenin source: a voltage source with a
>50 ohm series resistor. This is a good model of a laboratory signal
>generator of the type used for HF measurements. I'll make the open
>circuit voltage 141.4 volts RMS, which is the voltage of the voltage source.
>
>B = a lossless 50 ohm half wavelength transmission line.
>
>This is, wouldn't you agree, a situation where there's a perfect match
>at the input to the cable?
>
>First let's terminate the line with a 50 ohm load. The load will
>dissipate 100 watts. The reverse power on the line is zero. The
>dissipation in the source resistor is 100 watts. So here we have a
>situation where there's no reverse power, and the source resistor is
>dissipating 100 watts. The voltage source is producing the 200 watts
>being dissipated by the two resistors.
>
>Now open circuit the line. We find that the forward power is still 100
>watts. The reverse power is 100 watts. There is no load to dissipate
>power. The source is delivering no power. The source sees an open
>circuit. The dissipation in the source resistor is zero.
>
>Now, here's a case where clearly there's a perfect match between the
>source and the transmission line. There's 100 watts of reverse power on
>the line. Yet the source resistor is dissipating nothing. At least for
>the simplest case I can think of, a Thevenin source driving a matched
>line, the reverse power clearly isn't being absorbed or dissipated by
>the source resistor. In fact, when the reverse power went from zero to
>100 watts, the source resistor dissipation went from 100 watts to zero.
>
>If you put an isolator between the source and the line, it's a somewhat
>different story. Then, the source sees 50 ohms even when the line is
>opened at the far end. Consequently, the voltage source continues to
>produce 200 watts of power. 100 watts is dissipated in the source
>resistor and 100 in the isolator termination. I suppose it would be fun
>for some folks to argue whether the 100 watts dissipated by the source
>resistor is reverse power, whether the 100 watts dissipated by the
>isolator termination is the reverse power, or whether both are simply
>the the power being produced by the source. In fact, when you disconnect

>the line altogether, there's no longer any reverse power. And the
>dissipation in the source resistor stays at 100 watts and the isolator
>resistor at 100 watts. This makes it difficult to justify the need for
>reverse power to produce dissipation in the isolator termination. A
>simple explanation based entirely on load resistance will suffice, and
>it'll accurately predict the isolator termination dissipation regardless
>of line impedance or the amount of reverse power on the line. For
>example, if we connect the isolator to a 450 ohm half wavelength line
>terminated in 50 ohms, we'll have 278 watts forward and 178 reverse on
>the line, yet the isolator termination resistor will have zero
>dissipation. This is easily explained if you entirely ignore the reverse
>power and simply look at how the termination dissipation varies with
>load impedance. That holds true for *any* kind of steady state source,
>including an isolator or Thevenin source.
>
>The notion that reverse power is absorbed or dissipated by the load is a
>myth, based on misunderstanding of the phenomena involved. It's very
>easy to provide any number of examples to show it's simply not true.
>
>Roy Lewallen, W7EL
>
>

Hi Roy,

I am going back to this previous post as it seems to be the clearest
and most straight forward example.

My question is: with a watt meter at the output of the source and an
open half wave line connected to the other side, and the watt meter
reading 100 watts forward and 100 watts reflected, the resistor in
the source is dissipating zero power.

Remove the half wave line from the watt meter and you still have the
same conditions. The meter still reads 100 watts forward and 100 watts
reflected. The source resistor is dissipating zero power.

Could it be that there is no power involved here at all? In other
words the watt meter is reading 100 watts because of, and only because
of, the voltage it sees from the source and no current is
involved as evidence by zero dissipation in the source resistor.
There can not be any reflected power to the watt meter because there
is no line connected to it.

Thanks
Gary K4FMX

4578. Re: computer program for antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 18:13:33 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <mpjhvuk0650gt2aojd3kd2aur2jc5pod0d@4ax.com>
Source record: 129267

On Thu, 12 Dec 2002 09:38:21 -0600, "Bill Grimwood"
<bill@grimwood.net> wrote:

>I am new to radio and do not have the best electronics or math background.
>I need a simple to use computer program for design of a 2 meter yagi
>antenna. What do you recommend?
>
>Thanks
>
>Bill Grimwood
>K1WEG
>
>

Hi Bill,

Take a picture of an antenna that is suitable, find the scale, apply
the scale. Only takes a ruler.

If you are looking for the "best" or want to "improve" something; then
you are in over your head as there is nothing simple about this for
someone who is not good in electronics or math. [The first hint of
this is that you want to design without the pain. Skip it, there is
nothing new about 50 year old yagis to warrant a new design or the
pain.]

OR

You can spend a few years with a modeler (the software you are looking
for) and discover that, yes, if you took a picture, found the scale,
and applied the scale you would do just as well in the long run. Some
of us find the software entertaining, but your mileage may vary.

If you want to descend into that vale of woe, visit:
http://www.eznec.com/
After a week, you will either stick with it, or you will buy a brownie
and film (cheap choices both).

73's
Richard Clark, KB7QHC

4579. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 18:29:43 UTC
From: JoDee Lee <jodeelee@singnet.com.sg>
Message-ID: <3df8d5b3@news.starhub.net.sg>
Source record: 129268
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

Actually we do and as far as i remember, most aircraft have conventional ovens (the warmed up food you get is usually covered with and aluminium foil.) and trust me, even if it doesn't interfere with the nav systems, it interferes with the vhf comms. And in reply to someone saying that you can tune in to 111.9Mhz for example on your radio, it doesn't work that way, even tho it is fm, the frequency is modulated differently from the way a radio picks up a transmission. You'll never be able to "listen" even if you get the crystals on your radio tuned in. I'm sorry i'm attaching this to someone elses post but when i read these messages i wonder why ppl never listen to what they're told, until some incident happens... and bureaucracy is not an excuse!
one more thing i'd like to add is that the reason there haven't been recorded accidents is because most of time, the interference is more of a nuisance rather than life threatening, like off course navigation, background noise on the vhf comms, loss of and failure of flight management systems... Most pilots are able to cope but come on ppl, why wait for an accident before we learn? For once, lets not let some ruling be written up in blood.

"Chris Kirby >" <<g4fzn@yahoo.com> wrote in message
news:raacvu86ubu3c1dgmnmjitofn18re8l9h1@4ax.com...
> Andy Cowley <andy.cowley@uwe.ac.uk> wrote:
>
> >Zoran Brlecic wrote:
> >>
> >> >
> >> > GPS receivers only receive signals, they do not transmit them.
> >>
> >> It doesn't matter. Every receiver has some sort of an oscillator which,
> >> albeit very weak, *could* interfere with the aircraft's sensitive
> >> navigation and control systems. Especially if every passenger fired up
> >> one or more of those.
> >
> >And the steward(esse)s can't use a microwave oven? You are joking
> >aren't you? If the navigation and control systems really were that
> >subject to RFI then they would never be allowed near an aircraft.
> >I suppose you believe that the satellite phones have been constructed
> >magically without oscillators? And the dozens of other transmitters,
> >receivers, transponders etc. are all built without oscillators?
> >Complete bullshit, Zoran. It's just another stupid bureaucratic
> >rule, without rhyme or reason.
>

>
> And the pilots ALWAYS switch their own mobiles off. (NOT)
>
> Chris

4580. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 18:36:06 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF8D716.7060901@ieee.org>
Source record: 129269
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Richard Clark wrote:
> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
> This may be a common condition, however it matches none of your other
> discussion.

If that's a problem, let me correct it. Please reference

http://www.qsl.net/w5dxp/fig2.gif

The transmitter source is somewhere out to the left, out of the
picture. The load is somewhere out to the right, out of the
picture. The energy inputs into the illustrated system are the
Pfwd1 and Pref2 coherent waves. The energy output from the system
is the Pfwd2 wave. This is what has been being discussed. So to
alleviate any confusion, I will differentiate between the "transmitter
source" and the "source wave(s)" from now on. I thought it was self-
evident up until now.

> You certainly missed the curve on that one. As I said, I would only
> consider it if I were to ignore all the other business that is wholly
> unnecessary to this "interference."

Please consider anything you want but please use Occam's Razor to
distill this discussion down to something managable. That is what
I am trying to do. Introduction of an infinite number of irrelevant
concepts is a well known diversionary tactic. Why on earth would
you not "ignore all the other business that is wholly unnecessary"?
What does the price of eggs in China have to do with this discussion?

> Certain kinds? Do I have to ask you what kinds? It is all too tiring
> to have to engage in 6 or 7 rounds to complete one simple answer.
> Again you had a choice to talk around it or simply name ONE.

I did name one, Richard. The particular kind of interference that I
am talking about is the interference between two coherent waves traveling
in the same direction in a transmission line. Any other kind of interference
is irrelevant to the discussion and I hope you agree we should avoid
irrelevant diversions.

> Interference of two waves are not being discussed? Well, then there
> is no point in further discussion.

Hmmmmm, exactly what Dr. Best says as we get closer to a truth that he
doesn't care for.

Why must you introduce reams of irrelevant material. Are you interested
in getting to the truth or interested in diversions? Would you please
answer the question that Steve has refused to answer?

In a transmission line containing a match point and reflections,
the reflected energy:
1. Flows into the transmitter
2. Stands still
3. Disappears from the system
4. Flows toward the load
5. Other, please explain _____
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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4581. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 18:42:02 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF8D87A.7030600@ieee.org>
Source record: 129270
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Richard Clark wrote:
> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>In Dr. Best's analysis, his two sources are coherent waves, not transmitters
>>and not batteries. Dr. Best's asserts that the power in his source waves is
>>fixed at V^2/Z0 = I^2*Z0 = V*I? Do you agree with Dr. Best?
>
> I don't see how that answers your choice to limit Roy's sources in
> transmission lines.

This discussion is limited to "source waves", Richard. Any deviation
from that topic is just another logical diversion. One wonders why
logical diversions are needed.

If you have forgotten, the topic is how Dr. Best takes two and only two
source waves and combines them to obtain more than the sum of the energy
in those two waves. Batteries and transmitter sources are irrelevant to
the discussion.

> That is two for two where you simply ignore the
> question and steamroller your agenda. No dialog in that.

The topic is NOT batteries or transmitter sources. The topic is source
waves. You seem afraid to discuss this topic. One wonders why.
--
cheers, CAM http://www.qsl.net/w5dxp

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-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4582. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 18:44:08 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF8D8F8.1020100@ieee.org>
Source record: 129271

Richard Clark wrote:

> richardharrison@webtv.net (Richard Harrison) quoted:
>>"And the SWR meter is between the isolator and the load?"
>
> Hi Richard,
>
> Why did you take the trouble to quote my question and then ignore it?

Because your question is ambiguous. Are you talking about the system
load or the isolator load?
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4583. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 18:48:20 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF8D9F4.6000703@ieee.org>
Source record: 129272

Gary Schafer wrote:
> Could it be that there is no power involved here at all? In other
> words the watt meter is reading 100 watts because of, and only because
> of, the voltage it sees from the source and no current is
> involved as evidence by zero dissipation in the source resistor.

In a real-world source, there will always be dissipation in the
source. Your model doesn't represent any ham transmitter that
I know of. There is current flowing and it is heating up the
final. We are talking about RF. The charge carriers are always
moving, i.e. causing current even if it is only displacement
current.
--
cheers, CAM http://www.qsl.net/w5dxp

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4584. Re: why we can able to talk on mobile while we are on a plane whenmost of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 18:55:52 UTC
From: Geoff <swooutdoors@hotmail.com>
Message-ID: <YY4K9.330818$QZ.49100@sccrnsc02>
Source record: 129273
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

"Barking Dog Amato" <barkingdogamato@eternal.net> wrote in message
news:4358076CAF023DE6.1F7C8AF069363CC4.8318E67943B71EF6@lp.airnews.net...
> In the early 90's there were several manufacture sponsored studies
> done on the safety of cell phones in different environments. The study
> was done in relationship to possible legal action if there were any
> problems or accidents that would leave the phone manufactures liable.
> I was working for Motorola CIG at the time and got to see the results.
>
> All airplanes were shown to be somewhat affected by cell phone
> emissions, generally in the communications area, but not limited to
> that area. The planes worst affected were early model 737's, L1011's
> and first model Airbus's, according to one engineer AB was worried
> that they could crash due to cell phone usage as they are dependant on
> computer control. All the airplane manufactures supposedly issued
> modification procedures and supposedly all problem areas were
> corrected within three years. However the chances of problems caused
> by cell phone are deemed too high a danger so the are still banned
> during flight. And the fact that changes to both phones and planes
> make the probability of a problem too great.
>
> As for hospitals same basic problems were shown, they can interfere
> with medical equipment. I was in the emergency room a while back when
> an accident victim was brought in. The cop decided to use his phone to
> call the station and it sent much of the equipment out of control till
> he had it forcibly removed and turned off. The hospital was planning
> on prosecuting the cop last I heard, as a heart patient nearly died
> because of this. The problems is that much medicial equipment isn't
> properly shielded for all levels of RF emissions.
>
> The worst offenders phone wise are analog phones, tri-mode GSM (don't
> know why the tri-mode makes a difference) original CDMA phones in that
> order. The newer CDMA and TDMA phones are supposed to be the safest.
>
>
Just a tidbit of information sourced from the GSM MoU Association.
The first commerical GSM service in the US was launched in November 1995 by
American Personal Communications and by 1997 there still were only 400,000
users. Therefore, before the end of 1995 there was no 1900mhz and therefore
no triband or triband phones for that matter. I would be suprised if there
any tri-band phones in 1995 (actually 1996) or even in 1997. So when exactly
was this study done (not just early 90's because that cant be accurate), and
if it was before 1996, then how did they use tri-mode GSM phones. I am not

argueing with you, there are just too many inconsistancies in this "study"
I have provided a link to back up what i wrote above
http://www.emory.edu/BUSINESS/et/P98/gsm/history.html

4585. Re: Close range power transmission

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 19:11:21 UTC
From: Aron Bacs <aronbjr@bellsouth.net>
Message-ID: <kY4K9.28506$X%3.25852@news.bellsouth.net>
Source record: 129274

Hello,

First, thank you ALL for the info; it has been a great thread to read!

The transmitter can be of any power (within the law/limit). The receiving circuit (coil and/or antenna) needs to get only "raw" power (no information) to run a small micro (~5mA) and a sensor (~15mA) all at about 3.5 to 5 volts. Hence about 70+mW.

It could be done with about 40mW, but my practical side says prepare for something in between 40mW and 70mW with a little extra :-)

As far as the transformer version, I too think it is "the one". I need to do more research on air core coupled transformers?

I imagine that the frequency reaches a peak for proper coupled power into the load. But since I do not do radio engineering, I don't have intuition helping me... that's where the group comes in! There probably is a proper coupling frequency that matches everything just right. The only monkey in the circuit would be the fact that there may be more than one micro and sensor, i.e. one transmitter and multiple receivers, so the load may vary :-(

Again thanks for the ideas and info,

Aron

"J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote in message news:zQ%J9.5104$lL6.1032763@news20.bellglobal.com...
> >> My car keys work on this sort of a system
> >> (I suspect higher power), but only about 1cm.
>
> "Richard Clark"
> > You are off by three orders of magnitude in frequency:
> >>>...at frequencies that are below the Mhz range if possible.
>
> Actually, IIRC, my car key receives (power and signal) at about 100kHz. The
> key doesn't need to contain a battery. Some do - but *only* for the remote
> control functions - both RF transmit plus an IR LED (the extra thin wallet
> backup key doesn't contain a battery).
>
> The incoming 100kHz signal is modulated with a rolling code, the key thinks
> about it and responds (via an LED) with the appropriate coded signal back.
> If everything matches, then you can start the car. It is about as secure

as
> is practical and even results in a discount on the insurance. On the
other
> hand, a replacement key costs several hundreds, plus the labour to program
> it into the system.
>
> Anyway, pretty sure my car key is getting the power+signal at about
100kHz.
> As I mentioned, only about 1cm. Pretty much a 'transformer' system.
>
> IIRC, there are some other "RF ID" systems that use the same frequency
range
> (sub-MHz) over longer ranges.
>
> PS: he did write "if possible", so I didn't think other higher frequencies
> commonly used in RF ID systems would be automatically disqualified as a
> potentially helpful answer. His biggest problem will be the 72mW over 18
> inches - assuming that he wants a low power system.
>
>

4586. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 19:18:36 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <hlmhvuou80157uvpjn34d7266s6ec19fqn@4ax.com>
Source record: 129275
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Thu, 12 Dec 2002 12:36:06 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>
>> You certainly missed the curve on that one. As I said, I would only
>> consider it if I were to ignore all the other business that is wholly
>> unnecessary to this "interference."
>
>Please consider anything you want but please use Occam's Razor

Hi Cecil,

That was explicit in my statement. You fail Occam's Razor with an
answer such as:
>> Certain kinds? Do I have to ask you what kinds? It is all too tiring
>> to have to engage in 6 or 7 rounds to complete one simple answer.
>> Again you had a choice to talk around it or simply name ONE.
>
>I did name one, Richard. The particular kind of interference that I
>am talking about is the interference between two coherent waves traveling
>in the same direction in a transmission line.

Particular kind? Substitution of your Particular for my Certain is
meaningless. You do nothing more than repeat an assertion and
introduce yet more argument (called steamrollering). Your rambling
requires me to buy into the incredible complexity and inspecifics you
have built into this. Like I said, I have no interest in pursuing
this 6 or 7 rounds. You have not distinguished between your
"Particular kind" of interference and these supposed others. Failing
that, there is no point in addressing even more complexity.

73's
Richard Clark, KB7QHC

4587. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 19:45:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvhpqjnah2tc1b@corp.supernews.com>
Source record: 129276

Gary Schafer wrote:
> On Fri, 06 Dec 2002 16:51:33 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>Ok, here's a case for consideration.
>>
>>A = a generator consisting of a Thevenin source: a voltage source with a
>>50 ohm series resistor. This is a good model of a laboratory signal
>>generator of the type used for HF measurements. I'll make the open
>>circuit voltage 141.4 volts RMS, which is the voltage of the voltage source.
>>
>>B = a lossless 50 ohm half wavelength transmission line.
>>
>> . . .
>
>
> Hi Roy,
>
> I am going back to this previous post as it seems to be the clearest
> and most straight forward example.
>
> My question is: with a watt meter at the output of the source and an
> open half wave line connected to the other side, and the watt meter
> reading 100 watts forward and 100 watts reflected, the resistor in
> the source is dissipating zero power.
>
> Remove the half wave line from the watt meter and you still have the
> same conditions. The meter still reads 100 watts forward and 100 watts
> reflected. The source resistor is dissipating zero power.
>
> Could it be that there is no power involved here at all? In other
> words the watt meter is reading 100 watts because of, and only because
> of, the voltage it sees from the source and no current is
> involved as evidence by zero dissipation in the source resistor.
> There can not be any reflected power to the watt meter because there
> is no line connected to it.
>
> Thanks
> Gary K4FMX

There's no current at either end of the line, but there's current in
between. And there's voltage at the ends of the line but the voltage is
zero exactly at the center of the line. This is a classic case of

standing waves.

There are voltage and current waves bouncing back and forth along the transmission line. From these, you can compute that 100 watts is traveling forward and 100 watts traveling in reverse. If the length of the line is, say, 150 ns (about 100 feet of solid polyethylene dielectric coax), this represents 100W * 150ns * 2 = 30 uJ of energy. And, sure enough, when we first turned on the source, it produced 100 watts for the first 300 ns -- 30 uJ of energy. But after that initial 300 ns, the current from the source dropped to zero, so there's no current -- or power -- entering or leaving the line.

The reason there's a total re-reflection at the source is that the returning waves see one end of the source resistor, and at the other end there's a source producing exactly the same voltage. Since the source resistor has the same voltage on both ends, no current flows through it, so it looks just like a passive open circuit. Once you've reached the steady state condition, you can change the source resistor to any value or disconnect the source altogether and maintain the same conditions in the (lossless) line.

The same illustration can be made with a current source in parallel with a 50 ohm resistor driving a *short* circuited half wavelength line. Exactly the same thing happens, but with the voltage and current reversing roles. The returning current wave encounters an equal but out of phase current from the source (unlike the voltage wave which was in phase -- due to the phase reversal of current when reflected). The top of the shunt source resistor sees two equal currents in opposite directions -- one from the current source and the other from the line. That is, all the current from the current source goes into the line and none into the shunt resistor. The shunt resistor has zero volts across it, so has no dissipation. What the returning waves see at the input end looks like a passive short circuit, so they're totally reflected. Once steady state is reached, the source resistor can be changed to any value without changing the line conditions. Or the current source and resistor can be replaced by a short circuit. The voltage at the ends of the line is zero, and the current at the center of the line is zero.

Roy Lewallen, W7EL

4588. Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 19:54:50 UTC
From: Andy Cap <no_way@co.uk>
Message-ID: <atapi4isk1@news6.svr.pol.co.uk>
Source record: 129277

Is earthing really necessary now that (most of us) don't use valves?
I use a dipole for an antenna.

4589. AC PF & SWR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 19:57:50 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <uvhqi72klmjr0c@corp.supernews.com>
Source record: 129278

What if any analogy can be drawn between AC Power Factor and SWR in a
transmission line?
tnx
hank wd5jfr

4590. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 20:02:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvhqqu3k6qhe55@corp.supernews.com>
Source record: 129279

The reason I didn't attempt to model a transmitter for my example is that it would surely invoke another long string of arguing over what constitutes a good model for a transmitter and distract from the question at hand. No matter what I would propose for a transmitter model would bring (likely valid) objections as to its accuracy, and these would be used to dispute any conclusions that might be drawn. And my model contains a lossless transmission line, which can't exist in the real world either. Athough the situation I've described can't exist (like any of the examples in just about any circuits, electromagnetics, or antenna textbook), I think it's very useful in gaining an understanding of what happens in more complex circuits. The alternative is to throw up your hands and say something like "transmitter gods work in mysterious ways beyond our understanding", believe whatever you choose, and make no attempt at understanding what's happening. I know that a sizeable number of readers prefer this approach to knowledge -- that's fine. My writings aren't intended for you.

If reverse power is not absorbed in the source resistor in the simple circuit I've used for illustration, where the source is perfectly matched, what could there be about a transmitter which would cause it to absorb the reverse power?

Again I'll mention Wes' example of a generator having an isolator at the output, where the dissipation in the isolator equals the reverse power. Unlike the simple circuit I used for illustration, it does present a matched passive load to the returning waves. Do you feel that's a good model for a typical amateur transmitter? What evidence is there for it?

Roy Lewallen, W7EL

OC_CAM's Razor wrote:
> Gary Schafer wrote:
>
>> Could it be that there is no power involved here at all? In other
>> words the watt meter is reading 100 watts because of, and only because
>> of, the voltage it sees from the source and no current is involved as
>> evidence by zero dissipation in the source resistor.
>
>
> In a real-world source, there will always be dissipation in the
> source. Your model doesn't represent any ham transmitter that
> I know of. There is current flowing and it is heating up the
> final. We are talking about RF. The charge carriers are always
> moving, i.e. causing current even if it is only displacement
> current.

4591. Re: AC PF & SWR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 20:15:39 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3df8ee73$0$71965$ba620e4c@news.skynet.be>
Source record: 129280

AC power factor means imaginary power (90° out of phase). Reflected power is real power (but 180° phase). No connection between them.

73 de ON5MJ - Jacques.

4592. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 20:34:16 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <yGydneXZwMFIb2WgXTWc2Q@crocker.com>
Source record: 129281

yes, if not for rf then at least for lightning and ac mains safety.

"Andy Cap" <no_way@co.uk> wrote in message
news:atapi4isk1@news6.svr.pol.co.uk...
> Is earthing really necessary now that (most of us) don't use valves?
> I use a dipole for an antenna.
>
>

4593. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 20:40:16 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <dprhvu845p79btekv8me7igo8859khlh2v@4ax.com>
Source record: 129282

On Thu, 12 Dec 2002 12:02:29 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>
>If reverse power is not absorbed in the source resistor in the simple
>circuit I've used for illustration, where the source is perfectly
>matched, what could there be about a transmitter which would cause it to
>absorb the reverse power?
>

Hi Roy,

Why is this a problem of a transmitter given it does evidence this conjecture of reflected power, and your model, extremely specific and by nature not of nature at all, not showing it? You have only thrown the problem backwards into the source behind it. The whole point of the historical introduction of Thevenin sources was to escape these non-intuitive formalisms that lead to recursive paradox.

Of the strangest assertions is to maintain that Reflections due to transmission lines and lumped circuits are indistinguishable, and then progressing to the next step to say that reflected power in transmission lines does not exist (except when an isolator conspires to re-route it to a dissipating load - an admission that further confuses the message).

I would challenge anyone here to reproduce your thought experiments' results at the bench inside an enclosed volume that could be calorimetrically measured to evidence a lack of heat generated from such circumstances. Would an open circuit load to a transmitter/source (of any design) fail to show a temperature rise as a consequence? More to the matter: does this bear out on the bench? And for that matter, a short is as much a discontinuity as an open, produces reflections just as well, and seemingly offers a contradiction to the argument for a lack of power in a reflected wave.

As Steve has offered so many times, the phase is far more important as a general answer than these crafted solutions.

73's
Richard Clark, KB7QHC

4594. Re: AC PF & SWR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 20:42:28 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvht5tjbhvq3eb@corp.supernews.com>
Source record: 129283

None. They're measurements of two different things.

The SWR is the ratio of the highest to lowest voltage (or highest to lowest current) along a transmission line that's at least a half wavelength long. The AC power factor is the ratio of average power to the average of the product of RMS voltage and current in an AC circuit.

The ratio of V to I of the traveling waves in a transmission line is equal to the characteristic impedance of the line. At MF and above, the characteristic impedance is almost purely real (resistive), so traveling wave V and I are in phase. If you're inclined to calculate the power contained in the traveling waves in a transmission line, you'll find that the power factor is very nearly one. The SWR results from interference between these traveling waves, and is not something that affects the traveling waves or their characteristics.

Roy Lewallen, W7EL

Henry Kolesnik wrote:
> What if any analogy can be drawn between AC Power Factor and SWR in a
> transmission line?
> tnx
> hank wd5jfr
>
>

4595. Highest mobile antenna on your car and still be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 20:43:24 UTC
From: Recordking@Hotmail.com
Message-ID: <e8d89b3f.0212121243.51f39720@posting.google.com>
Source record: 129284

Anybody know the size of highest legal antenna u can but on your car.
Most of the big coil antennas I am looking at are 65 to 68 inches long
and my miniv van is 65 to 67 inches high and the antenna on top of my
mini van would be like 10ft 10inches it that too high.

4596. Source of Large Ferrite Beads

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 20:48:49 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <54thvusn6p4rnqj562m428mtpac8l6inba@4ax.com>
Source record: 129285

I am looking for ferrite beads that will fit over LMR600 (0.590 inches diameter). I have tried Amidon, but they don't carry anything that large, and the beads that are close to this size are mostly out of stock.

I want to prevent currents on the shield, but the LMR600 (solid core) I have is much too stiff to coil into a choke.

Are there any other sources for large ferrite beads?

Thanks.

--Mike

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http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

4597. Re: AC PF & SWR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 21:02:13 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <mP6K9.423$Xd.361211@newsfeed.slurp.net>
Source record: 129286

"Roy Lewallen" <w7el@eznec.com> wrote in part

> The AC power factor is the ratio of average power to
> the average of the product of RMS voltage and current
> in an AC circuit.

AC power factor is defined as the degree to which voltage and current are in phase, quantified by the cosine of the phase angle by which the current leads or lags the voltage.

Power consumption of a 1-phase AC load = E * I * power factor. For a 3-phase load it is E * I * SQRT(3) * power factor.

Richard Fry

4598. Re: Source of Large Ferrite Beads

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 21:06:43 UTC
From: fractenna@aol.com
Message-ID: <20021212160643.18004.00000019@mb-mv.aol.com>
Source record: 129287

>I am looking for ferrite beads that will fit over LMR600 (0.590 inches
>diameter). I have tried Amidon, but they don't carry anything that
>large, and the beads that are close to this size are mostly out of
>stock.
>
>I want to prevent currents on the shield, but the LMR600 (solid core)
>I have is much too stiff to coil into a choke.
>
>Are there any other sources for large ferrite beads?
>
>Thanks.
>
>--Mike
>

www.ferrishield.com

73,
Chip N1IR

4599. Re: AC PF & SWR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 21:09:36 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <uvhuoq93qpt57c@corp.supernews.com>
Source record: 129288

Roy

Two questions:
1. If SWR is ratio on a line at least 1/2 wave please explain SWR on less
than 1/2 wave length line.
2. Can V and I get out of phase on a line and if so what is cause and
consequence and how do you know?
tnx
hank wd5jfr
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:uvht5tjbhvq3eb@corp.supernews.com...
> None. They're measurements of two different things.
>
> The SWR is the ratio of the highest to lowest voltage (or highest to
> lowest current) along a transmission line that's at least a half
> wavelength long. The AC power factor is the ratio of average power to
> the average of the product of RMS voltage and current in an AC circuit.
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> The ratio of V to I of the traveling waves in a transmission line is
> equal to the characteristic impedance of the line. At MF and above, the
> characteristic impedance is almost purely real (resistive), so traveling
> wave V and I are in phase. If you're inclined to calculate the power
> contained in the traveling waves in a transmission line, you'll find
> that the power factor is very nearly one. The SWR results from
> interference between these traveling waves, and is not something that
> affects the traveling waves or their characteristics.
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> Roy Lewallen, W7EL
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> > What if any analogy can be drawn between AC Power Factor and SWR in a
> > transmission line?
> > tnx
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> >
> >
>

4600. Re: Highest mobile antenna on your car and still be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 21:10:37 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <3DF8FB4D.4BAF49FB@core.com>
Source record: 129289

Most states limit the height of any vehicle on the highways to 13 feet 6 inches above the roadway. Bridges are constructed to meet this height plus a few inches for safety. Special movement permits and routing are needed to exceed the max legal height. This applies to all vehicles on the highway, trucks and cars.

Dave WD9BDZ

DJboutit wrote:

> Anybody know the size of highest legal antenna u can but on your car.
> Most of the big coil antennas I am looking at are 65 to 68 inches long
> and my miniv van is 65 to 67 inches high and the antenna on top of my
> mini van would be like 10ft 10inches it that too high.

4601. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 21:28:47 UTC
From: gaschafer@attbi.com
Message-ID: <3df8ffb2.18326382@netnews.attbi.com>
Source record: 129290

On Thu, 12 Dec 2002 11:45:15 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Gary Schafer wrote:
>> On Fri, 06 Dec 2002 16:51:33 -0800, Roy Lewallen <w7el@eznec.com>
>> wrote:
>>
>>
>>>Ok, here's a case for consideration.
>>>
>>>A = a generator consisting of a Thevenin source: a voltage source with a
>>>50 ohm series resistor. This is a good model of a laboratory signal
>>>generator of the type used for HF measurements. I'll make the open
>>>circuit voltage 141.4 volts RMS, which is the voltage of the voltage source.
>>>
>>>B = a lossless 50 ohm half wavelength transmission line.
>>>
>>> . . .
>>
>>
>> Hi Roy,
>>
>> I am going back to this previous post as it seems to be the clearest
>> and most straight forward example.
>>
>> My question is: with a watt meter at the output of the source and an
>> open half wave line connected to the other side, and the watt meter
>> reading 100 watts forward and 100 watts reflected, the resistor in
>> the source is dissipating zero power.
>>
>> Remove the half wave line from the watt meter and you still have the
>> same conditions. The meter still reads 100 watts forward and 100 watts
>> reflected. The source resistor is dissipating zero power.
>>
>> Could it be that there is no power involved here at all? In other
>> words the watt meter is reading 100 watts because of, and only because
>> of, the voltage it sees from the source and no current is
>> involved as evidence by zero dissipation in the source resistor.
>> There can not be any reflected power to the watt meter because there
>> is no line connected to it.
>>
>> Thanks
>> Gary K4FMX
>

>There's no current at either end of the line, but there's current in
>between. And there's voltage at the ends of the line but the voltage is
>zero exactly at the center of the line. This is a classic case of
>standing waves.
>
>There are voltage and current waves bouncing back and forth along the
>transmission line. From these, you can compute that 100 watts is
>traveling forward and 100 watts traveling in reverse. If the length of
>the line is, say, 150 ns (about 100 feet of solid polyethylene
>dielectric coax), this represents 100W * 150ns * 2 = 30 uJ of energy.
>And, sure enough, when we first turned on the source, it produced 100
>watts for the first 300 ns -- 30 uJ of energy. But after that initial
>300 ns, the current from the source dropped to zero, so there's no
>current -- or power -- entering or leaving the line.

Hi Roy,

With the watt meter essentially at the end of the line, as you say
there is no current there, how
can the watt meter read reflected power with no current? (no line
connected) And we can't
really say that the watt meter is looking at a 50 ohm line anymore
with an open circuit right at
the meter. The current maximum would be a quarter wave back towards
the generator. With
essentially zero line length there is no room to develop a standing
wave.

I suppose that it could be argued that because the meter is calibrated
to operate at 50 ohms that
is what it is assuming. But I would think that it could also be argued
that because it does not see
50 ohms that it is no longer reliable. And that it is only coincidence
that it is reading what it does
in this situation?

Being that the watt meter reads voltage from both directions at once
(can't distinguish voltage
direction) it relies on current direction to tell whether power is
forward or reverse. If there is no
current at this point it can not tell us if there is reflected power
or not.

That is why I am wondering if the watt meter is really responding more
to a mismatch condition
than it is really telling us about reflected power.

73
Gary K4FMX

4602. Re: Highest mobile antenna on your car and still be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 21:45:08 UTC
From: Tom Brown <tab@signalgrp.com>
Message-ID: <3DF9025D.9B1F0D51@signalgrp.com>
Source record: 129291

You will find that any vehicular antenna height greater than
about 12 -12.5 feet will have many "encounters" with tree limbs,
etc. This effect also changes with the seasons; less banging
when the trees are bare.

A top hat (capacity hat) is worthy of consideration in reducing
the height and maintaining acceptable performance.

73,

Tom N4TAB

~~~~~~~~~~~~~~~~~

"David G. Nagel" wrote:
>
> Most states limit the height of any vehicle on the highways to 13 feet 6
> inches above the roadway. Bridges are constructed to meet this height plus
> a few inches for safety. Special movement permits and routing are needed
> to exceed the max legal height. This applies to all vehicles on the
> highway, trucks and cars.
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> Dave WD9BDZ
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> DJboutit wrote:
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> > Anybody know the size of highest legal antenna u can but on your car.
> > Most of the big coil antennas I am looking at are 65 to 68 inches long
> > and my miniv van is 65 to 67 inches high and the antenna on top of my
> > mini van would be like 10ft 10inches it that too high.
~~~~~~~~~~~~~~~~~

4603. Re: Source of Large Ferrite Beads

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 21:49:48 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF9047C.DA3D50C8@cwis.net>
Source record: 129292

Mike,
Round up every old TV you can find (try the land-fill), salvage the deflection yoke, strip off all the tiny copper wire, you're left with a huge ferrite core that will fit anything...
'Doc

4604. Re: AC PF & SWR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 22:03:02 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvi1t6ij7auee4@corp.supernews.com>
Source record: 129293

Good questions.

1. For a lossless line, changing the line length doesn't change the SWR. If you want to calculate the SWR from its definition, you need to have a line that's long enough to guarantee that you have at least one maximum (that is, point where the voltage or current is the greatest it can be) and one minimum (likewise). This requires at least a half wavelength of line, which is the only reason I made that qualification. But if you shorten the line, there's no change in the forward or reverse traveling waves which interfere to create the standing waves, so the SWR (as the term is universally used) remains the same. It's just that you can no longer reliably determine it by looking at the maximum and minimum voltage or current points. You can still calculate the SWR from the reflection coefficient at the load, or the cable and load impedances. Or you can indirectly measure it using a directional coupler approach.

If a line is lossy, the SWR decreases as move away from the load. But nothing magic happens at a half wavelength.

2. There's a problem with answering the second question. The problem is how you define which direction constitutes positive current. If you define the direction of positive current flow to always be from the source to the load, then what I said in my previous posting has to be modified. In that case, the voltage and current are in phase in the forward traveling wave, and out of phase in the reverse traveling wave, because the direction of the currrent is reversed in the reverse wave. (In fact, Bruene-type directional meters use this phase difference to separate forward and reverse components.) If you calculate a power represented by the traveling voltage and current waves, voltage and current out of phase represents power flowing in the opposite direction from the direction considered to be positive for current flow.

But this doesn't answer the question of whether the actual voltage and current (the sum of the forward and reverse traveling waves) can get out of phase along the line. I don't have a ready answer for this, and can't see one intuitively, so I'd have to sit down for a while with some equations (or a spreadsheet or simple program) to get a feel for what happens to the phase of the sum of forward and reverse waves. I don't have the time for it just now -- maybe someone else can answer it. I don't see that the phase of the combined voltage and current waves has any special significance.

Roy Lewallen, W7EL

Henry Kolesnik wrote:
> Roy

>
> Two questions:
> 1. If SWR is ratio on a line at least 1/2 wave please explain SWR on less
> than 1/2 wave length line.
> 2. Can V and I get out of phase on a line and if so what is cause and
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> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:uvht5tjbhvq3eb@corp.supernews.com...
>
>>None. They're measurements of two different things.
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>>lowest current) along a transmission line that's at least a half
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>>contained in the traveling waves in a transmission line, you'll find
>>that the power factor is very nearly one. The SWR results from
>>interference between these traveling waves, and is not something that
>>affects the traveling waves or their characteristics.
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>>Roy Lewallen, W7EL
>>
>>Henry Kolesnik wrote:
>>
>>>What if any analogy can be drawn between AC Power Factor and SWR in a
>>>transmission line?
>>>tnx
>>>hank wd5jfr
>>>
>>>
>>
>
>

4605. Testing a Ferrite Choke Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 22:57:04 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <4v8K9.6654$m8.4307@nwrddc01.gnilink.net>
Source record: 129294

Assuming one had an antenna analyzer, and you wanted a choke impedance of say 5 or more times the feed impedance of the antenna, how would one determine the choke impedance (effectiveness) of a particular configuration?

'73 KI4Z

4606. Re: Pager QRM

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 23:02:12 UTC
From: "Bob M." <xxxxx@yyyy.zzz>
Message-ID: <z6acneSUF8HuiGSgXTWcow@comcast.com>
Source record: 129295

I don't know what site you get with www.par-electronics.com, but I get someone's personal web page with lots of pictures on it. Nothing to do with electronics or RF filters.

Bob M.
======
"Dale Parfitt" <parinc@verizon.net> wrote in message
news:3DF8923E.2DC8C845@verizon.net...
>
>
> Tom wrote:
>
> > Hi,
> >
> > After moving to a new location, I'm getting full scale QRM on the 2
> > meter band in various areas of the dial. I've already lowered my
> > antenna, switched on the ATT and still the noise from pagers is
> > terrible. The radio is a 2410H connected to a Diamond X200A with 100' of
> > grounded Belden coax at each end.
> >
> > If I closing up the front end with a dual DCI, I lose all receive
> > outside of 2m/70cm. I suppose I could place the antenna on the ground
> > (I'm down to the last 10 feet of mask) or buy a different antenna.
> >
> > So I guess my question is there anything I can do to the Diamond itself?
> > Horizontal polarization is out, heck, moving the antenna to a differnet
> > location is out. I can't afford to replace the radio at this time
> > (besides, a newer radio might make the problem worse) or afford a dual
> > DCI or a spectrum analyser to hunt down the offending pager site.
> > Besides I might be too tempted to throw a rock at it. Hehe.
> >
> > Thanks,
> >
> > Tom
>
> Our notch filters are transparent to 6M, 2M and 70cM (insertion loss
under
> 0.4dB) while placing a >50dB notch at the pager frequencies. Stocked by
> A.E.S., HRO and Universal Radio or direct.
>
> Dale W4OP
> for PAR ELectronics, Inc.
>

4607. Re: Source of Large Ferrite Beads

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 23:22:50 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <atb5o9$a27$1@knossos.btinternet.com>
Source record: 129296

Try a number of ferrite rings which add up to the same length as a
cylindrical sleeve.

4608. Re: Testing a Ferrite Choke Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 23:28:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvi6tlm87j9p43@corp.supernews.com>
Source record: 129297

Wind coax on the core or rod, or slip cores over a piece of coax, leaving a small amount of coax at each end of the choke. Tie the center conductor to the shield at each end. Connect one end to the ground side of the antenna analyzer connector and the other to the center pin, and measure the impedance.

The impedance of cores slipped over the coax will increase in direct proportion to the number of cores. That is, doubling the number of cores will double the impedance. The impedance of a winding on a toroid core will increase as the square of the number of turns -- doubling the number of turns will increase the impedance by a factor of four. On a ferrite rod, the impedance will be more than proportional to the number of turns, but less than the square of the number of turns, with the exact factor depending on a number of things related to the rod and winding geometry and the rod permeability. You can use these rules to extrapolate if it's not convenient to measure the exact configuration you'll be using.

Roy Lewallen, W7EL

Mark Hall wrote:
> Assuming one had an antenna analyzer, and you wanted a choke impedance of
> say 5 or more times the feed impedance of the antenna, how would one
> determine the choke impedance (effectiveness) of a particular
> configuration?
>
> '73 KI4Z
>
>

4609. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-12 23:42:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvi7o5djra5b65@corp.supernews.com>
Source record: 129298

Well, it's a magical meter. We need to be careful in mixing real meters with idealized situations. If it does bother you, though, move the meter just a tiny way in from the end, where neither current nor voltage is zero. Any real wattmeter would absorb energy from the line, too, which would have to be replenished by the source and which would disturb the assumed conditions.

You're right that a typical directional wattmeter is responding to a mismatch condition, although a 50 ohm wattmeter inserted in a 50 ohm line will correctly indicate the same forward and reverse power you get from calculation of these quantities from the voltage and current waves on the connected line. A 50 ohm wattmeter inserted in any other impedance line won't indicate the forward and reverse power on the line it's connected to, though. A directional wattmeter can't tell if it's connected to a 50 ohm line, a line of another impedance, or simply a circuit of lumped components. As long at the impedance seen by the wattmeter is the same, it'll indicate the same forward and reverse power. You can conceptually understand what it's doing by imagining that it contains a short piece of 50 ohm line and that it's indicating the forward and reverse power on that line. Some wattmeters, like the Bird, actually have such a line physically inside. Others like the Bruene circuit, don't.

Roy Lewallen, W7EL

Gary Schafer wrote:
>
> Hi Roy,
>
> With the watt meter essentially at the end of the line, as you say
> there is no current there, how
> can the watt meter read reflected power with no current? (no line
> connected) And we can't
> really say that the watt meter is looking at a 50 ohm line anymore
> with an open circuit right at
> the meter. The current maximum would be a quarter wave back towards
> the generator. With
> essentially zero line length there is no room to develop a standing
> wave.
>
> I suppose that it could be argued that because the meter is calibrated
> to operate at 50 ohms that
> is what it is assuming. But I would think that it could also be argued
> that because it does not see
> 50 ohms that it is no longer reliable. And that it is only coincidence

> that it is reading what it does
> in this situation?
>
> Being that the watt meter reads voltage from both directions at once
> (can't distinguish voltage
> direction) it relies on current direction to tell whether power is
> forward or reverse. If there is no
> current at this point it can not tell us if there is reflected power
> or not.
>
> That is why I am wondering if the watt meter is really responding more
> to a mismatch condition
> than it is really telling us about reflected power.
>
> 73
> Gary K4FMX
>

4610. Re: Testing a Ferrite Choke Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 00:01:52 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <Qr9K9.6651$dP.4896@nwrddc02.gnilink.net>
Source record: 129299

Hey thanks.. that makes perfect sense..

'73 KI4Z

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:uvi6tlm87j9p43@corp.supernews.com...
> Wind coax on the core or rod, or slip cores over a piece of coax,
> leaving a small amount of coax at each end of the choke. Tie the center
> conductor to the shield at each end. Connect one end to the ground side
> of the antenna analyzer connector and the other to the center pin, and
> measure the impedance.
>
> The impedance of cores slipped over the coax will increase in direct
> proportion to the number of cores. That is, doubling the number of cores
> will double the impedance. The impedance of a winding on a toroid core
> will increase as the square of the number of turns -- doubling the
> number of turns will increase the impedance by a factor of four. On a
> ferrite rod, the impedance will be more than proportional to the number
> of turns, but less than the square of the number of turns, with the
> exact factor depending on a number of things related to the rod and
> winding geometry and the rod permeability. You can use these rules to
> extrapolate if it's not convenient to measure the exact configuration
> you'll be using.
>
> Roy Lewallen, W7EL
>
> Mark Hall wrote:
> > Assuming one had an antenna analyzer, and you wanted a choke impedance
of
> > say 5 or more times the feed impedance of the antenna, how would one
> > determine the choke impedance (effectiveness) of a particular
> > configuration?
> >
> > '73 KI4Z
> >
> >
>

4611. Re: Hi-Q or Hamstick mobile ant ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 00:02:23 UTC
From: lombryt@hotmail.com
Message-ID: <db35a0c.0212121602.dc59dd4@posting.google.com>
Source record: 129300

'Doc <w5lz@cwis.net> wrote in message news:<3DF79CE7.AD005332@cwis.net>...
> Thierry,
> Have you considered a 'bug catcher' type antenna?
> 'Doc

Hi Doc,

No yet (I even didn't know them until you ask me to chekc them ;-))
But seems interesting, maybe similar to Hi-Q.
I will check their website (which is temporary - I hope -
inaccessible.
In the meantime I printed the eham reviews.

NB. About Hi-Q, Charlie confirmed me he provides 4 magnets to place
his Hi-Q on a car roof top. But his antenna are expensive : a 2.4/40
RT motorized + capacitanc ehat + large coil + shipping to europe =
about 550$...

Thanks for yr help

Thierry
ONL5183
http://www.astrosurf.com/lombry
update : new logo and qsl page

4612. Re: SWR Bridge component values-Henry 2K4

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 00:05:27 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3df92c2e_3@news1.prserv.net>
Source record: 129301

Look, guys, I'm sorry if I wasn't clear. I HAVE THE MANUAL. It does not contain the detail I need to reconstruct this thing from scratch, since it was gutted by someone else, and the original owner is a SK. Besides, the original manual contains several errors which I have already determined corrections for.

--
Crazy George
Remove NO and SPAM from return address
"Bob Miller" <bxmillerSpamNot@texas.net> wrote in message
news:KMn4PZMv1V2=lUqrDM31o+8X=BSr@4ax.com...
> "Crazy George" <munschNO@attglobal.net.SPAM> wrote:
>
> You might try http://www.w7fg.com or http://www.manualman.com
>
> Bob
> k5qwg
>

>

4613. SCHUMANN RESONANCE VLF/ULF MAGNETIC WAVE STUFF???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 00:26:38 UTC
From: JEEPMON <JEEPMON@HOTMAIL.COM>
Message-ID: <1P9K9.339234$WL3.107378@rwcrnsc54>
Source record: 129302
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave,uk.radio.amateur

HAS ANYONE HEARD OF THIS? IT MENTIONS THE IONOSPHERE AND ELECTROMAGNETIC
WAVES AND SOLAR CYCLES AND ELF/VLF ACTIVITY?

http://www.2012.com.au/SchumannResonance.html

LOL

4614. Re: skelton cone antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 00:28:43 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DF929C3.153C7C4C@shaw.ca>
Source record: 129303

'Doc wrote:
>
> Bert,
> Try doing a search for 'disk cone' antenna.
> 'Doc

You can also find them called skeleton discone antennas as
well.
It is a variation on the discone where the elements
represent a
plane cross section which cuts through the vertical center
of
the discone.
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4615. Re: Testing a Ferrite Choke Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 00:33:24 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <uvian2ofa46692@corp.supernews.com>
Source record: 129304

This brings to mind an old question that has plaqued me and that is if
toroid cores are more efficient why would one use a rod? Or vice versa, why
don't GG linears use toroids but use rods. Are toroids too hard to wind
with heavy wire?
tnx
hank wd5jfr
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:uvi6tlm87j9p43@corp.supernews.com...
> Wind coax on the core or rod, or slip cores over a piece of coax,
> leaving a small amount of coax at each end of the choke. Tie the center
> conductor to the shield at each end. Connect one end to the ground side
> of the antenna analyzer connector and the other to the center pin, and
> measure the impedance.
>
> The impedance of cores slipped over the coax will increase in direct
> proportion to the number of cores. That is, doubling the number of cores
> will double the impedance. The impedance of a winding on a toroid core
> will increase as the square of the number of turns -- doubling the
> number of turns will increase the impedance by a factor of four. On a
> ferrite rod, the impedance will be more than proportional to the number
> of turns, but less than the square of the number of turns, with the
> exact factor depending on a number of things related to the rod and
> winding geometry and the rod permeability. You can use these rules to
> extrapolate if it's not convenient to measure the exact configuration
> you'll be using.
>
> Roy Lewallen, W7EL
>
> Mark Hall wrote:
> > Assuming one had an antenna analyzer, and you wanted a choke impedance
of
> > say 5 or more times the feed impedance of the antenna, how would one
> > determine the choke impedance (effectiveness) of a particular
> > configuration?
> >
> > '73 KI4Z
> >
> >
>

4616. Re: SCHUMANN RESONANCE VLF/ULF MAGNETIC WAVE STUFF???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 00:46:22 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <o7bivuk01q5rvdi55l9j15ddgfmm459in2@4ax.com>
Source record: 129305
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave,uk.radio.amateur

On Fri, 13 Dec 2002 00:26:38 GMT, "JEEPMON" <JEEPMON@HOTMAIL.COM>
wrote:

>HAS ANYONE HEARD OF THIS? IT MENTIONS THE IONOSPHERE AND ELECTROMAGNETIC
>WAVES AND SOLAR CYCLES AND ELF/VLF ACTIVITY?
>
>http://www.2012.com.au/SchumannResonance.html
>
Hi OM,

> scientific proof of the Earth passing through the Photon Belt
Um, I think this occurs for half of earth half of every day.

I can't imagine how this gets better, but it does help quick analysis
and saves time when the presenter offers to take his cyanide tablet
before stepping up to the podium. Hopefully it is after any fractal
antenna lecturers who have their own prescription working through
their system. [These guys are long on wind and short on results.]

73's
Richard Clark, KB7QHC

GAD, I had to look down the page to see the astrological implications.
Consult a Boston Astrologer who also does fractal work to form a
double suicide pact.

4617. Re: Testing a Ferrite Choke Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 00:57:20 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <vvbivu09vd75f9a4qs43toopob925pp07f@4ax.com>
Source record: 129306

On Thu, 12 Dec 2002 18:33:24 -0600, "Henry Kolesnik"
<wd5jfr@oklahoma.net> wrote:

>This brings to mind an old question that has plaqued me and that is if
>toroid cores are more efficient why would one use a rod? Or vice versa, why
>don't GG linears use toroids but use rods. Are toroids too hard to wind
>with heavy wire?
>tnx
>hank wd5jfr

Hi Hank,

Any sense of efficiency is as you already guessed: in the
manufacturing. Rods are very useful if you design within their
limitations (they do not have a closed field). Such a limitation is
marginal if you have excess rod length, but then that goes back to the
bottom line, unless, of course, it costs more to wind a toroid than a
rod. You might want to give the designer the benefit of the doubt and
simply accept that it (toroid or rod) serves the purpose it was put
to.

73's
Richard Clark, KB7QHC

4618. Re: Testing a Ferrite Choke Balun

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 01:06:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uviclr6bm3llbf@corp.supernews.com>
Source record: 129307

With a ferrite rod, you have a large air gap in the magnetic path (from one end of the rod to the other). This greatly reduces the effective permeability, so you get less impedance for a given number of turns. But it also reduces the flux density. In baluns, high flux density can cause core heating, which can be a problem at high power levels, but at least for high permeability ferrites, core saturation isn't a problem. (The core will get extremely hot at flux levels well below saturation.) But if the winding has DC or low frequency AC on it, saturation can be a problem. I suspect that rods are used for grounded grid linears because of the DC the winding has to carry. The same thing could of course be done with a gapped toroid, EI, pot, or other kind of core, but rods are relatively inexpensive and convenient.

Toroids aren't necessarily more efficient, it's just that you can get more impedance for a given number of turns, all else being equal.

Roy Lewallen, W7EL

Henry Kolesnik wrote:
> This brings to mind an old question that has plaqued me and that is if
> toroid cores are more efficient why would one use a rod? Or vice versa, why
> don't GG linears use toroids but use rods. Are toroids too hard to wind
> with heavy wire?
> tnx
> hank wd5jfr

4619. Re: SCHUMANN RESONANCE VLF/ULF MAGNETIC WAVE STUFF???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 01:13:58 UTC
From: Jake Donovan <jakedonovan_nospam@cox.net>
Message-ID: <qvaK9.8925$0b.271198@news2.east.cox.net>
Source record: 129308
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave,uk.radio.amateur

Yes,

Interesting thing- It reverberates between the Van Allen Belt and the
Ionisphere at 10Hz

10Hz is also the freq your Brain's Alpha Waves measure out at.

"JEEPMON" <JEEPMON@HOTMAIL.COM> wrote in message
news:1P9K9.339234$WL3.107378@rwcrnsc54...
> HAS ANYONE HEARD OF THIS? IT MENTIONS THE IONOSPHERE AND ELECTROMAGNETIC
> WAVES AND SOLAR CYCLES AND ELF/VLF ACTIVITY?
>
> http://www.2012.com.au/SchumannResonance.html
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>
> LOL
>
>

4620. Re: Pager QRM

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 01:37:03 UTC
From: JWheeler <kd5bcu@yahoo.com>
Message-ID: <uviedr6l10ua09@corp.supernews.com>
Source record: 129309

Ditto here.

JWheeler

"Bob M." <xxxxx@yyyy.zzz> wrote in message
news:z6acneSUF8HuiGSgXTWcow@comcast.com...
> I don't know what site you get with www.par-electronics.com, but I get
> someone's personal web page with lots of pictures on it. Nothing to do
with
> electronics or RF filters.
>
> Bob M.
> ======
> "Dale Parfitt" <parinc@verizon.net> wrote in message
> news:3DF8923E.2DC8C845@verizon.net...
> >
> >
> > Tom wrote:
> >
> > > Hi,
> > >
> > > After moving to a new location, I'm getting full scale QRM on the 2
> > > meter band in various areas of the dial. I've already lowered my
> > > antenna, switched on the ATT and still the noise from pagers is
> > > terrible. The radio is a 2410H connected to a Diamond X200A with 100'
of
> > > grounded Belden coax at each end.
> > >
> > > If I closing up the front end with a dual DCI, I lose all receive
> > > outside of 2m/70cm. I suppose I could place the antenna on the ground
> > > (I'm down to the last 10 feet of mask) or buy a different antenna.
> > >
> > > So I guess my question is there anything I can do to the Diamond
itself?
> > > Horizontal polarization is out, heck, moving the antenna to a
differnet
> > > location is out. I can't afford to replace the radio at this time
> > > (besides, a newer radio might make the problem worse) or afford a dual
> > > DCI or a spectrum analyser to hunt down the offending pager site.
> > > Besides I might be too tempted to throw a rock at it. Hehe.
> > >
> > > Thanks,
> > >
> > > Tom
> >

> > Our notch filters are transparent to 6M, 2M and 70cM (insertion loss
> under
> > 0.4dB) while placing a >50dB notch at the pager frequencies. Stocked by
> > A.E.S., HRO and Universal Radio or direct.
> >
> > Dale W4OP
> > for PAR ELectronics, Inc.
> >
>
>

4621. Re: SWR Bridge component values-Henry 2K4

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 02:03:02 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <6neivugtpjn8vu44pbo8852suj8s907dtl@4ax.com>
Source record: 129310
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,sci.electronics.repair

On Tue, 10 Dec 2002 21:02:21 -0600, "Crazy George"
<munschNO@attglobal.net.SPAM> wrote:

>The used 2K4 I bought suffered some kind of disaster inside the little
>aluminum box containing the bridge. Someone probably tried to put a
>kilowatt into an open circuit. The inside of the box is blackened, and
>spotted with fine particles of molten metal. As a repair, some previous
>owner simply removed most of what was in there, leaving the toroid around
>the center conductor, and the two .01 caps on the RCA jacks. I have a
>corrected copy of the schematic, and would like to obtain a few pieces of
>additional data before I tackle rebuilding it.

I presume those caps bridge the connectors and offer part of the
low-pass output.

>
>The drawing (SWR Bridge, December 1970, By: WCK) shows a unterminated
>winding (L80) grounded on one end, and apparently wrapped around the center
>conductor.

Sounds like a candidate for failure if you attempt to follow through
on that thought.

>There was a short piece of magnet wire still stuck inside the
>insulator in the center of the toroid, and I suspect this must have been a
>simple Faraday shield.

A piece of wire would be hard pressed to serve that function. Stuck
in the insulator? Descriptive, but not very informing.

>How many turns, and what spacing was it? And, how
>many turns in the main coupling winding around the toroid (L81)? I count 64
>remaining on this one, which may be close to the original number.

Well, at least that offers some place to start. It also suggests a
good amount of isolation, but simultaneously brings the prospects of
becoming tuned at an inappropriate frequency through stray
capacitance, perhaps this is justifies your assumption of there being
a faraday shield.

>
>Second, some component values. The trimmers (C80 & 87) connected to the
>center conductor were probably in the range of 7 pf. Is that correct?

Seems reasonable, but I doubt both are the same value as they form a
divider that will offer roughly the same ratio as the two resistors or

other coupling ratio this circuit uses.

>
>Are the RF chokes (incorrectly shown as C82 & 84) 0.5 or 1 mH, or something
>else?

Again, this and the 0.01 caps serve to filter the products of both
rectified outputs in the design.

>
>The SWR bridge shown in many ARRL Antenna Handbooks looks very similar to
>what is shown on the Henry schematic, so I am using it for some guidance.
>Has anyone else compared the two?
>
>All constructive comments appreciated, and yes, Reg, I know measuring SWR
>doesn't tell you much. I just want it for a relative output indicator.

Hi George,

Seems like the handbook would offer enough clues (I can't see either
your schematic nor the one you cite from the handbook). There must be
about a dozen passive components here: one transformer with three
(some are two) connections, two caps coupling from it, two resistors
terminating the secondary, two diodes, two diode loads (probably
variable to calibrate forward and reverse scales and perhaps more
resistors simply to limit range of adjustment), two chokes and two
caps to filter the metering current derived from the loads. There are
variations to this design that all go towards the same goal and their
size and connections vary accordingly, but generally show a symmetry.

The only mystery that remains is the winding ratio, 1:64, and the
shielding. The ratio seems OK. If you add a shield, it can only be
terminated at one end, otherwise you short out the induced signal (and
would probably blow the wire like a fuse). Skip the shield and test
the ratio by building the Handbook circuit. If the forward to back is
out of whack, the turns ratio is off, or the capacitive divider is.
Choose one and vary it (the ratio of the caps or the turns). Examine
the two caps or their values in the schematics and determine what
range of ratios they would support.

73's
Richard Clark, KB7QHC

4622. Re: All Band Wire Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 02:54:16 UTC
From: Scott Vanzandt <zandt@midsouth.rr.com>
Message-ID: <3siivu0du906esub1atpuvbrn5tanrf0ml@4ax.com>
Source record: 129311

On Thu, 12 Dec 2002 12:49:55 +0100, "F8BOE Olivier"
<f8boeNOSPAM@free.fr> wrote:

>$$How much$$ bill$ will co$t a Barker &William$on, $cott?
>
>73'$ de F8BOE Olivier $$$?$?
>
They are about $200 at Universal Radio. Haven't really priced them
around much. I would Really like to hear from someone who has bought
and used one.
Scott

4623. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 04:17:09 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF95F45.1080707@ieee.org>
Source record: 129312
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Richard Clark wrote:
> You have not distinguished between your
> "Particular kind" of interference and these supposed others.

You don't see any difference between waves that emerge from
interference identical to the way they were before the
interference and waves that don't emerge at all because they
are canceled by the interference????

Hint: One set of waves doesn't get canceled and one set does.
I'm not interested in diversionary detours into discussions
of waves that don't cancel. This discussion is about waves
that cancel.

> Failing that, there is no point in addressing even more
> complexity.

Seems to me you are the one trying to make the subject so
complex that nobody can understand it. One wonders why.
Nothing can be more simple than my simple example at:
http://www.qsl.net/w5dxp/fig2.gif Why are you so afraid
to discuss that simple example?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4624. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 04:24:32 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF96100.1090601@ieee.org>
Source record: 129313

Roy Lewallen wrote:
> If reverse power is not absorbed in the source resistor in the simple
> circuit I've used for illustration, where the source is perfectly
> matched, what could there be about a transmitter which would cause it to
> absorb the reverse power?

Who said it absorbs the reverse power?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
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4625. Re: AC PF & SWR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 04:29:46 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF9623A.9090408@ieee.org>
Source record: 129314

ON5MJ wrote:
> AC power factor means imaginary power (90ï¿½ out of phase). Reflected power is
> real power (but 180ï¿½ phase). No connection between them.

Since my degree is in power engineering, I guess I have to butt in.
The AC power factor is the ratio of watts to volt-amps and it could
indeed be applied to the *total* power in a transmission line with
reflections. It's not very useful in a transmission line because that
watt/volt-amp ratio varies depending on where one is on the SWR circle.
--
cheers, CAM http://www.qsl.net/w5dxp

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4626. Re: Highest mobile antenna on your car and still be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 04:33:26 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF96316.10306@ieee.org>
Source record: 129315

DJboutit wrote:
> Anybody know the size of highest legal antenna u can but on your car.
> Most of the big coil antennas I am looking at are 65 to 68 inches long
> and my miniv van is 65 to 67 inches high and the antenna on top of my
> mini van would be like 10ft 10inches it that too high.

It may vary from state to state but our 75m mobile antenna
shootouts limited the height above ground to 12 feet.
--
cheers, CAM http://www.qsl.net/w5dxp

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4627. Re: AC PF & SWR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 04:39:51 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF96497.1000409@ieee.org>
Source record: 129316

Henry Kolesnik wrote:
> 1. If SWR is ratio on a line at least 1/2 wave please explain SWR on less
> than 1/2 wave length line.

SWR = [Sqrt(Pfor) + Sqrt(Pref)]/[Sqrt(Pfor) - Sqrt(Pref)]

> 2. Can V and I get out of phase on a line and if so what is cause and
> consequence and how do you know?

V and I have to get out of phase in a transmission line with
reflections. That's the way we achieve impedance transformation
using a transmission line and why many people need an antenna
tuner.
--
cheers, CAM http://www.qsl.net/w5dxp

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4628. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 04:46:19 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF9661B.4000609@ieee.org>
Source record: 129317

Gary Schafer wrote:
> With the watt meter essentially at the end of the line, as you say
> there is no current there, how
> can the watt meter read reflected power with no current?

There is no current because the forward current wave and the
reflected current wave interfere with each other, i.e. they are
180 degrees out of phase and of equal magnitude.

> Being that the watt meter reads voltage from both directions at once
> (can't distinguish voltage
> direction) it relies on current direction to tell whether power is
> forward or reverse. If there is no
> current at this point it can not tell us if there is reflected power
> or not.

When the total current goes to zero at an open-circuit, the voltage
phasors add. The sampled voltages add to the sampled currents to
give the wattmeter reading.
--
cheers, CAM http://www.qsl.net/w5dxp

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4629. Re: AC PF & SWR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 04:51:47 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF96763.3000805@ieee.org>
Source record: 129318

Roy Lewallen wrote:
> But this doesn't answer the question of whether the actual voltage and
> current (the sum of the forward and reverse traveling waves) can get out
> of phase along the line. I don't have a ready answer for this, and can't
> see one intuitively, so I'd have to sit down for a while with some
> equations (or a spreadsheet or simple program) to get a feel for what
> happens to the phase of the sum of forward and reverse waves.

Don't bother, Roy. The SWR circle on a Smith Chart will give you exactly
the phase angle between the total voltage and the total current. The
phase angle of the impedance point is the same as the phase angle between
the total voltage and total current.
--
cheers, CAM http://www.qsl.net/w5dxp

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4630. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 04:58:22 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF968EE.1060403@ieee.org>
Source record: 129169

Rick Littlefield wrote:
> In the US, odds are you'll never see anyone "carrying".

In Apache Junction, AZ, probably every fifth person is
carrying a handgun out in the open. That's the town at
the foot of the Superstition Mountains, you know, where
the Lost Dutchman Mine is supposed to be located.
--
cheers, CAM http://www.qsl.net/w5dxp

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4631. Re: Highest mobile antenna on your car and still be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 05:19:14 UTC
From: Rick Karlquist <richard@karlquist.remove.this.com>
Message-ID: <m5eK9.132120$pN3.9158@sccrnsc03>
Source record: 129170

You should be OK with 13 ft 6 inches. I run about 14 ft
and that sometimes just touches gas station canopies. I don't
think I've seen a bridge yet under 14 ft. Of course anything
even close to that height will hit trees all the time. I use
a CB whip for the top 102 inches; it just bends around trees.

Rick N6RK

"DJboutit" <Recordking@Hotmail.com> wrote in message
news:e8d89b3f.0212121243.51f39720@posting.google.com...
> Anybody know the size of highest legal antenna u can but on your car.
> Most of the big coil antennas I am looking at are 65 to 68 inches long
> and my miniv van is 65 to 67 inches high and the antenna on top of my
> mini van would be like 10ft 10inches it that too high.

4632. Re: AC PF & SWR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 07:46:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvj42gfq6m9u3b@corp.supernews.com>
Source record: 129171

Of course. Thanks.

Roy Lewallen, W7EL

OC_CAM's Razor wrote:
> Roy Lewallen wrote:
>
>> But this doesn't answer the question of whether the actual voltage and
>> current (the sum of the forward and reverse traveling waves) can get
>> out of phase along the line. I don't have a ready answer for this, and
>> can't see one intuitively, so I'd have to sit down for a while with
>> some equations (or a spreadsheet or simple program) to get a feel for
>> what happens to the phase of the sum of forward and reverse waves.
>
>
> Don't bother, Roy. The SWR circle on a Smith Chart will give you exactly
> the phase angle between the total voltage and the total current. The
> phase angle of the impedance point is the same as the phase angle between
> the total voltage and total current.

4633. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 08:21:25 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <fi4jvu8q14r26g7q3nt6dvk63hrlhtorqv@4ax.com>
Source record: 129172
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Thu, 12 Dec 2002 22:17:09 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Richard Clark wrote:
>> You have not distinguished between your
>> "Particular kind" of interference and these supposed others.
>
>You don't see any difference between waves that emerge from
>interference identical to the way they were before the
>interference and waves that don't emerge at all because they
>are canceled by the interference????

Hi Cecil,

This is not an answer for specifics on your "Particular kind" of
interference and nor does it explain what makes it different from what
you percieve to be other kinds.

> waves that emerge ... identical to the way they were before
> waves that don't emerge at all
>Hint: One set of waves doesn't get canceled and one set does.
makes no sense at all. The statement violates the conservation of
energy (where did the canceled energy go?). You have less energy at
the end than you do at the begining and you haven't explained where
the balance is.

Show me the balance and how it correlates to this "Particular kind" of
interference.

73's
Richard Clark, KB7QHC

4634. just a test

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 10:22:35 UTC
From: Paulo Calvo <bogus@bogus.bogus>
Message-ID: <3df9b4ef$0$229$4d4efb8e@read.news.pt.uu.net>
Source record: 129173

[No readable article body recovered]

4635. Re: All Band Wire Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 11:45:08 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DF9C844.783AA6C6@cwis.net>
Source record: 129174

Scott,
Do a search on that antenna in the 'back-posts' of
this NG. You'll find more than you ever wanted to know.
'Doc

4636. Re: SCHUMANN RESONANCE VLF/ULF MAGNETIC WAVE STUFF???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 11:55:38 UTC
From: "M. J. Powell" <mike@pickmere.demon.co.uk>
Message-ID: <hloDwNQ6qc+9Ew7I@pickmere.demon.co.uk>
Source record: 129177
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave,uk.radio.amateur

In message <1P9K9.339234$WL3.107378@rwcrnsc54>, JEEPMON
<JEEPMON@HOTMAIL.COM> writes
>HAS ANYONE HEARD OF THIS? IT MENTIONS THE IONOSPHERE AND ELECTROMAGNETIC
>WAVES AND SOLAR CYCLES AND ELF/VLF ACTIVITY?

Yes, I've heard of it.

Mike
--
M.J.Powell

4637. Windom Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 12:04:14 UTC
From: KC1DI <elbc2@gwi.net>
Message-ID: <h2jjvu0ahdrt8kqne29nk446n14pn6r33k@4ax.com>
Source record: 129175

Anyone using a version of the windom antenna and if so what results have you noticed. thinking of building one so please include construction notes that you feel will be helpful. the way my house and lots are situated ceter feed is not really and option--thanks ,73 dave

4638. Re: Highest mobile antenna on your car and still be legal

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 12:12:11 UTC
From: Alan Beagley <abeagley@optonline.net>
Message-ID: <3DF9CE9B.5060707@optonline.net>
Source record: 129176

The "parkways" around here (NY metro area) have some bridges lower than
12ft. Commercial vehicles not permitted, of course, but every now and
again a straying semi has an unwelcome encounter with one of these bridges.

-=-
Alan, AB2OS

Rick Karlquist wrote:
> You should be OK with 13 ft 6 inches. I run about 14 ft
> and that sometimes just touches gas station canopies. I don't
> think I've seen a bridge yet under 14 ft. Of course anything
> even close to that height will hit trees all the time. I use
> a CB whip for the top 102 inches; it just bends around trees.

4639. Re: SCHUMANN RESONANCE VLF/ULF MAGNETIC WAVE STUFF???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 12:24:21 UTC
From: Andy Cowley <andy.cowley@uwe.ac.uk>
Message-ID: <3DF9D179.15F39D1@uwe.ac.uk>
Source record: 129179
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave,uk.radio.amateur

JEEPMON wrote:
>
> HAS ANYONE HEARD OF THIS? IT MENTIONS THE IONOSPHERE AND ELECTROMAGNETIC
> WAVES AND SOLAR CYCLES AND ELF/VLF ACTIVITY?
>
> http://www.2012.com.au/SchumannResonance.html
>
> LOL

Believers in elves may be interested. Hokum.

vy 73

Andy, M3ABC

4640. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 12:28:33 UTC
From: Andy Cap <no_way@co.uk>
Message-ID: <atcjpargn1@news6.svr.pol.co.uk>
Source record: 129178

Hi David,
From what I have read, if you get struck by lightning, then nothing can save you (or your gear).
As regards mains safety, why don't we then have an independent earth for fridges/tv's etc?
I'm not trying to be awkward, just asking the questions!
Thanks.

"David Robbins" <k1ttt@arrl.net> wrote in message news:yGydneXZwMFIb2WgXTWc2Q@crocker.com...
> yes, if not for rf then at least for lightning and ac mains safety.
>
> "Andy Cap" <no_way@co.uk> wrote in message
> news:atapi4isk1@news6.svr.pol.co.uk...
> > Is earthing really necessary now that (most of us) don't use valves?
> > I use a dipole for an antenna.
> >
> >
>
>

4641. Re: Pager QRM

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 13:19:43 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3DF9DB25.7BA15C4B@verizon.net>
Source record: 129180

"Bob M." wrote:

> I don't know what site you get with www.par-electronics.com, but I get
> someone's personal web page with lots of pictures on it. Nothing to do with
> electronics or RF filters.
>
> Bob M.
> ======

http://www.parelectronics.com

4642. Re: SCHUMANN RESONANCE VLF/ULF MAGNETIC WAVE STUFF???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 13:22:09 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <5cWcncH76bM3QmSgXTWc2Q@crocker.com>
Source record: 129181
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave,uk.radio.amateur

"JEEPMON" <JEEPMON@HOTMAIL.COM> wrote in message
news:1P9K9.339234$WL3.107378@rwcrnsc54...
> HAS ANYONE HEARD OF THIS? IT MENTIONS THE IONOSPHERE AND ELECTROMAGNETIC
> WAVES AND SOLAR CYCLES AND ELF/VLF ACTIVITY?
>
> http://www.2012.com.au/SchumannResonance.html
>

great stuff. if you really want to know about schumann resonance and
related elf/vlf activity try these rather more scientific sites...
http://www.oulu.fi/~spaceweb/textbook/schumann.html
http://quake.geo.berkeley.edu/ncedc/em.intro.html
http://www-star.stanford.edu/~scr/Research.html
http://www-star.stanford.edu/~vlf/

it is amazing how much is attributed to the schumann resonance phenomenon if
you search on google, seems like everything from the end of the earth to
links to telekenesis and the driving force of all life is attributed to it.

4643. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 13:29:18 UTC
From: richardharrison@webtv.net
Message-ID: <8129-3DF9E0AE-16@storefull-2312.public.lawson.webtv.net>
Source record: 129183

CAM wrote:
"One set of waves doesn`t get cancelled and one set does."

In the composition and resolution of vectors, if memory serves, two or more voltages or currents of the same frequency (and traveling in the same direction on a common path) must add to produce a composite of the same frequency. Upon this composition, the constituents are indistinguishable.

So, energy emerging from a transmitter and re-reflected energy have their individual voltages in-phase with their currents. The voltages of the same frequency must merge as vectors and the currents also must merge.

Post merger, we have one voltage and one current in one direction away from the transmitter. The wave traveling toward the transmitter is incmpatible, due to its 180-degree phase opposition, with the forward wave.

Best regards, Richard Harrison, KB5WZI

4644. Re: Pager QRM

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 13:29:21 UTC
From: derswede@aol.comspam.com
Message-ID: <20021213082921.18613.00000022@mb-cu.aol.com>
Source record: 129182

>I don't know what site you get with www.par-electronics.com, but I get
>someone's personal web page with lots of pictures on it. Nothing to do with
>electronics or RF filters.

Try the following:

http://www.parelectronics.com/antenna.html

that will take you directly to the antenna page. I've got one of the 6M
antennas....works great. All the reports on the filters (which I do not own)
say the same. Guys are helpful and are hams, which, for me, counts a lot.

Cheers;
Andrew

4645. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 13:50:15 UTC
From: richardharrison@webtv.net
Message-ID: <8129-3DF9E597-17@storefull-2312.public.lawson.webtv.net>
Source record: 129189

Andy Cap wrote:
"Is earthing really necessary now that (most of us) don`t use valves?"

A safety ground (earth connection) is needed if Andy`s QTH is grounded, or earthing is practical, as David Robbins wrote. The dipole Andy uses may become unbalanced with respect to its feedline and introduce r-f to the shack. A rig ground may mitigate the effects.

Best regards, Richard Harrison, KB5WZI

4646. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 13:51:44 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF9E5F0.1000300@ieee.org>
Source record: 129184
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Richard Clark wrote:
> This is not an answer for specifics on your "Particular kind" of
> interference and nor does it explain what makes it different from what
> you percieve to be other kinds.

I can't say it any plainer, Richard. Perhaps my vocabulary is
failing me. There exists interference where the two waves flow
through each other unmolested. This happens when there is
no change in characteristic impedance of the medium, e.g. forward
and reflected waves meeting in a 50 ohm transmission line. There
exists interference where the two waves undergo destructive
interference such that their separate identies are lost.

> makes no sense at all. The statement violates the conservation of
> energy (where did the canceled energy go?).

In a transmission line, the energy reverses direction, i.e. it is
reflected. Waves can be canceled but the energy in the wave cannot
be canceled even though Dr. Best says it can.

> Show me the balance and how it correlates to this "Particular kind" of
> interference.

Discuss the simple example at http://www.qsl.net/w5dxp/fig2.gif and
all will become clear to you.
--
cheers, CAM http://www.qsl.net/w5dxp

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4647. Re: Windom Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 13:54:05 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF9E67D.20503@ieee.org>
Source record: 129186

KC1DI wrote:
> Anyone using a version of the windom antenna and if so what results
> have you noticed. thinking of building one so please include
> construction notes that you feel will be helpful. the way my house
> and lots are situated ceter feed is not really and option--thanks ,73

I used one in college and it worked well. The radiation pattern
is not broadside symmetrical and the feedline radiates.
--
cheers, CAM http://www.qsl.net/w5dxp

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4648. Daiwa or Alpha Antenna Switch: Opinions On ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 13:54:18 UTC
From: Robert11 <rgsrose@tiac.net>
Message-ID: <atcp10$2dj$1@slb5.atl.mindspring.net>
Source record: 129185

Hello:

Have decided to purchase either a Daiwa or an Alpha antenna switch.

Do listening only.

Will need two; one (the cheaper version) for below 30 MHz, and one for the above 30 MHz with N connectors.

Have looked thru many posts on antenna switches on the newsgroups, etc., and can find pretty much an even split between those that think Daiwa are poorly made, inferior construction, etc.,
and those that think the same for the Alpha brand ("nothing but a cheap wafer switch," etc.).

A bit surprising; imagined that there would be a concensus, but apparently not.

Since it looks like it will have to be either one of these two, was wondering if anyone would care to add their thoughts?

thanks

4649. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 14:10:00 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DF9EA38.5050805@ieee.org>
Source record: 129188

Richard Harrison wrote:
> CAM wrote:
> "One set of waves doesn`t get cancelled and one set does."
>
> In the composition and resolution of vectors, if memory serves, two or
> more voltages or currents of the same frequency (and traveling in the
> same direction on a common path) must add to produce a composite of the
> same frequency. Upon this composition, the constituents are
> indistinguishable.

That's true if the waves are coherent and traveling in the same direction. But such phasor addition can result in two waves traveling in opposite directions in a transmission line, i.e. the superposition of two waves can result in reflections. Dr. Best doesn't seem to realize this.

> So, energy emerging from a transmitter and re-reflected energy have
> their individual voltages in-phase with their currents. The voltages of
> the same frequency must merge as vectors and the currents also must
> merge.

That's assuming re-reflection happens. Re-reflection can only happen at an impedance discontinuity. In a signal generator with an isolator and isolator load equal to Z0, there is no re-reflection. I don't think we can say that all ham transmitters re-reflect 100% of the reflected power except by definition of the word "delivered".

> Post merger, we have one voltage and one current in one direction away
> from the transmitter. The wave traveling toward the transmitter is
> incompatible, due to its 180-degree phase opposition, with the forward
> wave.

The wave traveling toward the transmitter is not incompatible with the forward wave all up and down the transmission line so why is it necessarily incompatible with the transmitter? If the reflected wave does not see an impedance discontinuity at the transmitter, it will not be re-reflected. So the question is: Does reflected energy *always* see an impedance discontinuity at *every* transmitter and if so, does the impedance discontinuity cause a Zg match point that re-reflects all the reflected power and doesn't allow any reflected energy to flow through the generator?
--
cheers, CAM http://www.qsl.net/w5dxp

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4650. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 14:10:26 UTC
From: Uncle Peter <radioconnectionNO@cox.netSPAM>
Message-ID: <mTlK9.24618$y14.2159803@news1.east.cox.net>
Source record: 129187

"Andy Cap" <no_way@co.uk> wrote in message
news:atcjpargn1@news6.svr.pol.co.uk...
> Hi David,
> From what I have read, if you get struck by lightning, then nothing can
save
> you (or your gear).

Thousands of radio/TV stations and commercial base stations
get hit by lightning each year without damage. A proper ground system
is required, as well as protective equipment which diverts the surge
around the equipment, not through it.

> As regards mains safety, why don't we then have an independent earth for
> fridges/tv's etc?

I thought fridges now used three wire plugs? They should be required to.
Manufacturers are cheap and meet minimal requirements.

> I'm not trying to be awkward, just asking the questions!
> Thanks.
>
> "David Robbins" <k1ttt@arrl.net> wrote in message
> news:yGydneXZwMFIb2WgXTWc2Q@crocker.com...
> > yes, if not for rf then at least for lightning and ac mains safety.
> >
> > "Andy Cap" <no_way@co.uk> wrote in message
> > news:atapi4isk1@news6.svr.pol.co.uk...
> > > Is earthing really necessary now that (most of us) don't use valves?
> > > I use a dipole for an antenna.
> > >
> > >
> >
> >
>
>

4651. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 14:13:05 UTC
From: richardharrison@webtv.net
Message-ID: <10650-3DF9EAF1-15@storefull-2315.public.lawson.webtv.net>
Source record: 129191

Andy Cap wrote:
"---why don`t we have an independent earth for fridges / tvs etc?"

Fridges aren`t attached to lightning rods in the sky (antennas). Fridges don`t radiate r-f.

Outdoor TV antennas require safety earthings to detour lightning induced energy around people and contents of connected spaces. The earth connection is also needed to reduce shock risk from contact with an antenna or mast.

Best regards, Richard Harrison, KB5WZI

4652. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 14:21:05 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <XduTOkJRze+9EAOJ@ifwtech.co.uk>
Source record: 129196

Andy Cap wrote:
>Hi David,
>From what I have read, if you get struck by lightning, then nothing can save
>you (or your gear).
>As regards mains safety, why don't we then have an independent earth for
>fridges/tv's etc?
>I'm not trying to be awkward, just asking the questions!
>Thanks.
>
>"David Robbins" <k1ttt@arrl.net> wrote in message
>news:yGydneXZwMFIb2WgXTWc2Q@crocker.com...
>> yes, if not for rf then at least for lightning and ac mains safety.

Andy is in Britain, where national wiring regulations for homes are not so stringent about lightning, because we have much less of it than in most parts of the USA. (Our regulations find other things to be paranoid about instead.)

There are three different reasons for grounding in an amateur station: protection against routine mains faults (broken wires or shorts), protection against lightning (including various sizes of induced surges, which are much more common than direct strikes), and to help make the antenna work.

Not all antennas require a ground connection in order to make them work (eg a dipole doesn't) but they are all lightning attractors so they may need a protective ground. If so, it should be as close as possible to the antenna.

The reason why domestic appliances often don't have a ground wire is that they aren't stuck up in the air outdoors. But such appliances are *always* double-insulated instead. TVs are an exception: they are often connected to outside lightning attractors, but they are double-insulated from the mains.

The RF/lightning ground and the mains ground (earth) meet in your shack, so it's a good idea to keep your RF out of the mains wiring by means of a large RF choke. Likewise the choke helps to keep mains-borne noise out of the radio gear. All your mains outlets to the shack should come through a single feed for safety shutdown reasons, and that's also where the RF choke should go.

As others have noted recently, a scrapped TV deflection yoke makes a good ferrite core (you'd pay a fortune for a toroid that size). About 10-15 turns of *all three* mains wires wound through the neck will be effective for HF. Since the mains earth conductor is continuous through

the choke, it doesn't affect mains safety.

That solution might not be valid in the USA, but in Britain the main protection against lightning is home insurance, and/or the special amateur radio policy that RSGB has negotiated.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

4653. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 14:28:51 UTC
From: Andy Cap <no_way@co.uk>
Message-ID: <atcqqr$1mf$1@news5.svr.pol.co.uk>
Source record: 129190

Thanks for the answers guys.

4654. Re: Daiwa or Alpha Antenna Switch: Opinions On ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 14:48:22 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92E35AA76AD33michalkunyahoocom@128.233.3.7>
Source record: 129192

I heard those switches are expensive because they are made for trasmitting
and handling the power.
I think it would be the best if you make your own switch if you intend to
use it for listening only, which is very easy.

"Robert11" <rgsrose@tiac.net> wrote in
news:atcp10$2dj$1@slb5.atl.mindspring.net:

> Hello:
>
> Have decided to purchase either a Daiwa or an Alpha antenna switch.
>
> Do listening only.
>
> Will need two; one (the cheaper version) for below 30 MHz, and one for
> the above 30 MHz with N connectors.
>
> Have looked thru many posts on antenna switches on the newsgroups,
> etc., and can find pretty much an even split between those that think
> Daiwa are poorly made, inferior construction, etc.,
> and those that think the same for the Alpha brand ("nothing but a
> cheap wafer switch," etc.).
>
> A bit surprising; imagined that there would be a concensus, but
> apparently not.
>
> Since it looks like it will have to be either one of these two, was
> wondering if anyone would care to add their thoughts?
>
> thanks
>
>
>
>

4655. Re: SCHUMANN RESONANCE VLF/ULF MAGNETIC WAVE STUFF???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 14:56:38 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3df9fe9f_1@news1.prserv.net>
Source record: 129195
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave,uk.radio.amateur

Tasmania???? Now there's a hotbed of scientific research.

--
Crazy George
Remove NO and SPAM from return address
"JEEPMON" <JEEPMON@HOTMAIL.COM> wrote in message
news:1P9K9.339234$WL3.107378@rwcrnsc54...
> HAS ANYONE HEARD OF THIS? IT MENTIONS THE IONOSPHERE AND ELECTROMAGNETIC
> WAVES AND SOLAR CYCLES AND ELF/VLF ACTIVITY?
>
> http://www.2012.com.au/SchumannResonance.html
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> LOL
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4656. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 14:58:50 UTC
From: richardharrison@webtv.net
Message-ID: <8129-3DF9F5AA-39@storefull-2312.public.lawson.webtv.net>
Source record: 129193

CAM wrote:
"There exists interference where the two waves flow through each other unmolested."

SWR is a manifestation of the above.

CAM also wrote:
"This happens when there is no change in characteristic impedance of the medium--."

A discontinuity (impedance bump) is needed to generate reflections. VSWR is a manifestation of impedance resulting from wave inteference.
Every maximum and minimum is not a discontinuity.

Equal and opposite waves, as Cecil says, don`t go away. Energy annihilation is not allowed. Only the effect of counterbalanced waves at a point, nulls out.

Best regards, Richard Harrison, KB5WZI

4657. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 15:10:35 UTC
From: richardharrison@webtv.net
Message-ID: <8129-3DF9F86B-40@storefull-2312.public.lawson.webtv.net>
Source record: 129197

CAM wrote:
"---doesn`t allow any reflected energy to flow through the generator?"

We need to explain what we see.

Ptr = Pload = (Pfwd - Prefl)

No exceptions but loss according to Bird.

Best regards, Richard Harrison, KB5WZI

4658. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 15:14:14 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <6PmK9.6032$281.1401847@news20.bellglobal.com>
Source record: 129194

Andy Cap wrote:
> "---why don`t we have an independent earth for fridges / tvs etc?"

"Richard Harrison"
> Fridges aren`t attached to lightning rods in the sky (antennas).

Andy is in the UK and their electrical system is quite different from North American standards (not just voltage and frequency, but also in some fundamental philosophies as well, like grounding and loop circuits fed from two ends).

For the benefit of Andy, in Canada (probably the same in the US), the rule is that appliances must be either 'double insulated' or grounded. Fridges here are usually grounded - not for lightning nor RF, but in case of a short circuit from hot to chassis, the fuse will blow instead of killing someone. TVs are usually in the double insulated camp and usually have only a two-prong plug.

4659. Re: AC PF & SWR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 15:55:46 UTC
From: richardharrison@webtv.net
Message-ID: <8130-3DFA0302-21@storefull-2312.public.lawson.webtv.net>
Source record: 129198

Henry Kolesnik wrote:
"---explain SWR on less than 1/2 wave length line."

Easy. The variations seen as SWR exist in any length of line to an extent which depends on the reflection from a mismatch. It`s the extent we are interested in. We want to know the reflected and forward powers or the reflection coefficient.

All you need to know to determine the SWR which would exist in any length of ideal transmission line are the forward and reflected powers or the reflection coefficient. Seldom is a determination of maximum and minimum voltages made to determine SWR. We use a power meter or a bridge which indirectly (as nearly all electrical measurements are indirect) indicates SWR. The SWR meter is scaled to read SWR. The power meter is scaled to indicate power and its readings can be inserted in a formula which accurately indicates the SWR which would exist on that ideal line of any length.

Best regards, Richard Harrison, KB5WZI

4660. Re: AC PF & SWR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 16:23:47 UTC
From: richardharrison@webtv.net
Message-ID: <21608-3DFA0993-26@storefull-2314.public.lawson.webtv.net>
Source record: 129201

Henry Kolesnik wrote:
"Can V and I get out of phase on a line---?"

A line with reflections has voltage and current maximums which are shifted by 90 degrees with respect to each other. This is only SWR. It is the sum of the forward and reflected waves on the line.

In a lossless line, the individual forward and reflected waves have in-phase and out-of-phase Vand I relationships enforced by the construction of the line.

I know it is so because of countless measurements which prove it.

Best regards, Richard Harrison, KB5WZI

4661. Channel Specific TV antenna construction/question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 16:27:04 UTC
From: dgilbert@nascospg.com
Message-ID: <a235b6a6.0212130827.2f4141a@posting.google.com>
Source record: 129199

Hi there. I currently have a tv antenna tower with a rotor and the best Radio Shack antenna I could buy 4 years ago. It's performance has been good but there is one station, channel 3 that is located a little over 100 miles away I would like to get. At certain times of the day it comes in a little but is not watchable. (Can just make out the lines of a person throuh the snow). I was toying with the idea of putting another antenna tuned to this channel on the top of the mast my main antenna is on. I am new to constructing antennas and all this but is this feasible? Coould I weld something together out of emt conduit? Where could I get the specifics on the size it needs to be? How would I hook the antennas together correctly without getting "ghosts" or other undesireable affects?

Any help would be appreciated!

4662. Re: SCHUMANN RESONANCE VLF/ULF MAGNETIC WAVE STUFF???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 16:43:50 UTC
From: nordland37@hotmail.com
Message-ID: <3dfa0e21.2107934@news.freeserve.net>
Source record: 129200
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave,uk.radio.amateur

On Fri, 13 Dec 2002 00:46:22 GMT, Richard Clark <kb7qhc@attbi.com> wrote:

>GAD, I had to look down the page to see the astrological implications.
>Consult a Boston Astrologer who also does fractal work to form a
>double suicide pact.

Would you kindly point George W. Bush in the direction of
that astrologer?

--

_____
Posted by J.
West Bank
Tweeksbury

* Season's Greeting to all our Readers *

4663. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 17:15:36 UTC
From: Andy Cap <no_way@co.uk>
Message-ID: <atd4jg$9un$1@newsg2.svr.pol.co.uk>
Source record: 129202

"Ian White, G3SEK" <G3SEK@ifwtech.co.uk> wrote in message
news:XduTOkJRze+9EAOJ@ifwtech.co.uk...
> Andy Cap wrote:
> >Hi David,
> >From what I have read, if you get struck by lightning, then nothing can
save
> >you (or your gear).
> >As regards mains safety, why don't we then have an independent earth for
> >fridges/tv's etc?
> >I'm not trying to be awkward, just asking the questions!
> >Thanks.
> >
> >"David Robbins" <k1ttt@arrl.net> wrote in message
> >news:yGydneXZwMFIb2WgXTWc2Q@crocker.com...
> >> yes, if not for rf then at least for lightning and ac mains safety.
>
> Andy is in Britain, where national wiring regulations for homes are not
> so stringent about lightning, because we have much less of it than in
> most parts of the USA. (Our regulations find other things to be paranoid
> about instead.)
>
> There are three different reasons for grounding in an amateur station:
> protection against routine mains faults (broken wires or shorts),
> protection against lightning (including various sizes of induced surges,
> which are much more common than direct strikes), and to help make the
> antenna work.
>
> Not all antennas require a ground connection in order to make them work
> (eg a dipole doesn't) but they are all lightning attractors so they may
> need a protective ground. If so, it should be as close as possible to
> the antenna.
>
> The reason why domestic appliances often don't have a ground wire is
> that they aren't stuck up in the air outdoors. But such appliances are
> *always* double-insulated instead. TVs are an exception: they are often
> connected to outside lightning attractors, but they are double-insulated
> from the mains.
>
> The RF/lightning ground and the mains ground (earth) meet in your shack,
> so it's a good idea to keep your RF out of the mains wiring by means of
> a large RF choke. Likewise the choke helps to keep mains-borne noise out
> of the radio gear. All your mains outlets to the shack should come
> through a single feed for safety shutdown reasons, and that's also
> where the RF choke should go.

>
> As others have noted recently, a scrapped TV deflection yoke makes a
> good ferrite core (you'd pay a fortune for a toroid that size). About
> 10-15 turns of *all three* mains wires wound through the neck will be
> effective for HF. Since the mains earth conductor is continuous through
> the choke, it doesn't affect mains safety.
>
> That solution might not be valid in the USA, but in Britain the main
> protection against lightning is home insurance, and/or the special
> amateur radio policy that RSGB has negotiated.
>
> --
> 73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
> Editor, 'The VHF/UHF DX Book'
> http://www.ifwtech.co.uk/g3sek

Thanks Ian (and also others who contributed)- very helpful.
I've got your book (which is a real mine of information), read your column,
and I'll have a look at your website too!

4664. Re: Channel Specific TV antenna construction/question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 17:35:49 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <pa5kvu4rc0d8b0l06odvtlbheoaoa4vlca@4ax.com>
Source record: 129203

On 13 Dec 2002 08:27:04 -0800, dgilbert@nascospg.com (Don) wrote:

|Hi there. I currently have a tv antenna tower with a rotor and the
|best Radio Shack antenna I could buy 4 years ago. It's performance has
|been good but there is one station, channel 3 that is located a little
|over 100 miles away I would like to get. At certain times of the day
|it comes in a little but is not watchable. (Can just make out the
|lines of a person throuh the snow). I was toying with the idea of
|putting another antenna tuned to this channel on the top of the mast
|my main antenna is on. I am new to constructing antennas and all this
|but is this feasible? Coould I weld something together out of emt
|conduit? Where could I get the specifics on the size it needs to be?
|How would I hook the antennas together correctly without getting
|"ghosts" or other undesireable affects?

If you don't already have one, a preamplifier mounted at the antenna is highly recommended.

The usual single-channel antenna would be a Yagi but at channel 3 it will be a little bit difficult to get decent bandwidth. The reason is that channel is 60-66 MHz and this is pretty wide percentage wise for a Yagi.

The best alternative may be a log periodic dipole (LPD). To get a lot of gain out of these it will have to be pretty long. I suspicion however, that you probably don't need too much gain over what your existing antenna has. This is because I doubt that your antenna has much gain at CH 3.

(See: http://www.conformity.com/0005emc.html for a description of the LPD.) There are also a couple of programs floating around the net for designing these.

You most certainly can add another antenna but you need to use an appropriate transmission line coupler to do so. If both antennas are not pointed in the same direction, you will have the possibility of ghosting.

EMT though is definitely not recommended. You should use aluminum.

Wes

4665. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 17:50:36 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <en6kvukl2cfvq76u67r47gh1i2r9bkrp2i@4ax.com>
Source record: 129204
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Fri, 13 Dec 2002 07:51:44 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>> Show me the balance and how it correlates to this "Particular kind" of
>> interference.
>
>Discuss the simple example at http://www.qsl.net/w5dxp/fig2.gif and
>all will become clear to you.

Hi Cecil,

This has run on too long without an answer except for the perennial
unveiling of the steamroller.

Blame it on poor language if you will, but even that defense fails to
strip away the unnecessary complexity that attends your discussion.
Occam's Razor insists that the simpler understanding we have of
interference does not require this additional baggage. As this added
complexity appears to be necessary for your logic, I see no purpose in
pursuing baroque theories that only you seem to be able to understand.

Name one other correspondent here on this board (or better yet, let
them identify themself) that can serve as a surrogate to your
discussion and let me see if I can get an answer to
>If I see the projection of the sun through a double slit against a
>screen, I will see light and dark bars due to "interference." There
>is absolutely nothing here that requires an impedance discontinuity.
>There is no causal effect enforced on either of the two slits, one on
>the other (they remain independent sources). The two waves are wholly
>independent of each other before they fall on the screen, and after
>they reflect (there is no magic zero time at the screen to change
>anything going on here).
>
>So, just what kind of "interference" were you thinking of?
from that source.

73's
Richard Clark, KB7QHC

4666. Re: Pager QRM

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 18:34:50 UTC
From: L Caracciolo <larryc@northwest.com>
Message-ID: <3DFA2849.478BADA8@northwest.com>
Source record: 129205

the Par website comes up for me, with or without the hyphen.

=========

JWheeler wrote:

> Ditto here.
>
> JWheeler
>
> "Bob M." <xxxxx@yyyy.zzz> wrote in message
> news:z6acneSUF8HuiGSgXTWcow@comcast.com...
> > I don't know what site you get with www.par-electronics.com, but I get
> > someone's personal web page with lots of pictures on it. Nothing to do
> with
> > electronics or RF filters.
> >
> > Bob M.
> > ======
> > "Dale Parfitt" <parinc@verizon.net> wrote in message
> > news:3DF8923E.2DC8C845@verizon.net...
> > >
> > >
> > > Tom wrote:
> > >
> > > > Hi,
> > > >
> > > > After moving to a new location, I'm getting full scale QRM on the 2
> > > > meter band in various areas of the dial. I've already lowered my
> > > > antenna, switched on the ATT and still the noise from pagers is
> > > > terrible. The radio is a 2410H connected to a Diamond X200A with 100'
> of
> > > > grounded Belden coax at each end.
> > > >
> > > > If I closing up the front end with a dual DCI, I lose all receive
> > > > outside of 2m/70cm. I suppose I could place the antenna on the ground
> > > > (I'm down to the last 10 feet of mask) or buy a different antenna.
> > > >
> > > > So I guess my question is there anything I can do to the Diamond
> itself?
> > > > Horizontal polarization is out, heck, moving the antenna to a
> differnet
> > > > location is out. I can't afford to replace the radio at this time
> > > > (besides, a newer radio might make the problem worse) or afford a dual
> > > > DCI or a spectrum analyser to hunt down the offending pager site.

> > > > Besides I might be too tempted to throw a rock at it. Hehe.
> > > >
> > > > Thanks,
> > > >
> > > > Tom
> > >
> > > Our notch filters are transparent to 6M, 2M and 70cM (insertion loss
> > under
> > > 0.4dB) while placing a >50dB notch at the pager frequencies. Stocked by
> > > A.E.S., HRO and Universal Radio or direct.
> > >
> > > Dale W4OP
> > > for PAR ELectronics, Inc.
> > >
> >
> >

4667. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 20:48:11 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212131248.737317a2@posting.google.com>
Source record: 129206

richardharrison@webtv.net (Richard Harrison) wrote in message news:<8129-3DF9E597-17@storefull-2312.public.lawson.webtv.net>...
> Andy Cap wrote:
> "Is earthing really necessary now that (most of us) don`t use valves?"
>
> A safety ground (earth connection) is needed if Andy`s QTH is grounded,
> or earthing is practical, as David Robbins wrote. The dipole Andy uses
> may become unbalanced with respect to its feedline and introduce r-f to
> the shack. A rig ground may mitigate the effects.

It might, but that would not be the best way to tackle that problem. If he has common mode problems he would be better off using a better balun or choke. If he ran a 12v solid state rig from an AC power supply, the power supply is the only thing that "really" needs to be grounded. And most power supplies usually safety ground using a third ground pin on the power cord. But this assumes the grounded pin on the socket is actually properly grounded. If the radio is run off a battery, no ground is really needed at all. I would consider it optional. MK

4668. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 21:16:07 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFA4E17.4080007@ieee.org>
Source record: 129207
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Richard Clark wrote:
> Blame it on poor language if you will, but even that defense fails to
> strip away the unnecessary complexity that attends your discussion.
> Occam's Razor insists that the simpler understanding we have of
> interference does not require this additional baggage. As this added
> complexity appears to be necessary for your logic, I see no purpose in
> pursuing baroque theories that only you seem to be able to understand.

There is no added complexity, Richard, which tells me that you may
be ignorant of the details. See below.

> Name one other correspondent here on this board (or better yet, let
> them identify themself) that can serve as a surrogate to your
> discussion and let me see if I can get an answer to
>
>>If I see the projection of the sun through a double slit against a
>>screen, I will see light and dark bars due to "interference." There
>>is absolutely nothing here that requires an impedance discontinuity.
>>There is no causal effect enforced on either of the two slits, one on
>>the other (they remain independent sources). The two waves are wholly
>>independent of each other before they fall on the screen, and after
>>they reflect (there is no magic zero time at the screen to change
>>anything going on here).

Wave cancellation requires an impedance discontinuity, Richard. Your
two slit example is an irrelevant diversion. Here is an example of
wave cancellation: Two coherent waves traveling in the same direction
have been created at an impedance discontinuity. They are reflected
energy waves 1 and 2:

Wave1: 100V at 0 degrees with 2A at 180 degrees

Wave2: 100V at 180 degrees with 2A at 0 degrees

What happens when you add those two waves?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4669. Coaxial Dipole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 21:30:53 UTC
From: Chris Bronson <lordmastema@hotmail.com>
Message-ID: <3dfa51cb_2@news.bluewin.ch>
Source record: 129208

Hi,

I recently encountered a VHF coaxial dipole manufactured by Wipic in the 70s. The radiating element is grounded at its upper extremity by the inner tube of the antenna. What are the theoretical and practical advantages of such a design vs. a conventional coaxial dipole? Thanking you in advance for your help. Regards

Chris

Please find a technical drawing of the antenna on:
http://chrisbronson.freeservers.com/Wipic_Coaxial_Dipole.gif

4670. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 21:41:43 UTC
From: richardharrison@webtv.net
Message-ID: <29934-3DFA5417-39@storefull-2318.public.lawson.webtv.net>
Source record: 129210

Mark Keith wrote:
"It might (rig ground mitigate r-f in the shack), but that would not be the best way to tackle the problem."

Oh yeah?

A perfect ground and a 3/4-wave line would present a very high impedance at the dipole with no balun involved. I said may, not will mitigate r-f in the shack. Andy may have no balun and may not be disposed to install a balun.

What`s best, depends on the user.

Best regards, Richard Harrison, KB5WZI

4671. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 21:48:08 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <b8gkvuc3ev9cfkfratd26b624ermgnbrti@4ax.com>
Source record: 129209
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Hi Cecil,

With no surrogate either offered by you, or having stepped up in
several hours to offer an explanation that conforms to your
understanding - a closing synopsis:

We began with several premises:
>>>We don't have to worry about that in transmission lines.
So that we are on the same page, all waves are CONFINED to a
transmission line.
>>>that's all there is, two and only two waves
Ditto on being on the same page. TWO waves are CONFINED to the same
transmission line.
>>>they are from the one and only source in the system and are coherent.
Ditto on being on the same page. TWO waves are CONFINED to the same
transmission line driven by ONE SOURCE and they are COHERENT (even if
one is inverted with respect to the other).

That is sufficiently simple to not warrant a call on Occam's Razor
(barring someone's dispute). Then we enter into a nebulous region:

>>>they both encounter an impedance discontinuity
which is fine, but how did we get the two waves, from a single source,
BEFORE this discontinuity? Either something has not been revealed, or
this statement is in error.

This drives more complexity into the discussion with the odd notion
that:
>>>Being "sensible" to each other is what allows destructive interference
>>>between components of two different coherent waves traveling in the same
>>>direction.
Components? This dilutes the original TWO wave understanding (and
does not respond to where the second of the two came from, a problem
that is beginning to compound into even more complex explanations).
However, that is trivial in comparison to the basic mis-application
found in this quote above that denies the same operation of
interference in BOTH directions which is a fundamental property of TWO
COHERENT waves in a CONFINED line irrespective of all other
embellishments offered or to be added in the future.

The problems of this logic you offer is now doubly compounded and we
suddenly find a novel proposal for a "Particular" style of
interference that requires yet more explanation:

On Thu, 12 Dec 2002 22:17:09 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

> waves that emerge ... identical to the way they were before
> waves that don't emerge at all
>Hint: One set of waves doesn't get canceled and one set does.
makes no sense at all. The statement violates the conservation of
energy (where did the canceled energy go?). This compounds error to
the third degree. You have less energy at the end than you do at the
beginning and you till haven't explained where the balance is. You
haven't explained how two waves that exist in a closed system with
only one source; that are coherent (allowing for one wave's inversion
where appropriate); and that DO combine destructively in only one
direction and that DO NOT combine at all in the other (not even
constructively!) can exist as a physical reality. There is nothing in
physics that supports this odd relationship.

My stripped down discussion of classic interference:
>
>If I see the projection of the sun through a double slit against a
>screen, I will see light and dark bars due to "interference." There
>is absolutely nothing here that requires an impedance discontinuity.
>There is no causal effect enforced on either of the two slits, one on
>the other (they remain independent sources). The two waves are wholly
>independent of each other before they fall on the screen, and after
>they reflect (there is no magic zero time at the screen to change
>anything going on here).
was met by the steamroller and obvious indifference to the contrast
your argument makes with classical physics. This simple observational
evidence (Occam at his best) encompassed all the baggage of your
unnecessary embellishments and complexity of a crafted solution to
show they were false assertions across the board.

73's
Richard Clark, KB7QHC

4672. Test Message

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 22:23:11 UTC
From: Pat Whelton <pwhelton@earthlinkNOSPAM.net>
Message-ID: <j5tK9.4769$MV5.429438@newsread2.prod.itd.earthlink.net>
Source record: 129211

Test message after restore of system.

4673. WANT Active Dual SWR Power Meter or schematic

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 22:28:45 UTC
From: "frazier@flex.com" <frazier@flex.com>
Message-ID: <3DFA5F1D.69FA154F@flex.com>
Source record: 129212
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.antenna,alt.radio.amateur

I've got a SignalCrafter model 30 SWR Power meter and would like to find another in working condition, or another SWR/Power meter with similar features.

The SignalCrafter Model 30 has two meters. The lefthand one displays Power in three ranges, 20W, 200W, and 2000W. The righthand meter displays SWR, and under the SWR scale is something they called reflection coefficient. It also provides the ability to switch between three antennas and a dummy load. I don't care about the switching for antennas, as I only use mine for a SWR/Power meter, and use a different custom switching array for my antenna switches.

The SignalCrafter Model 30 was made in the early 80's and is an ACTIVE SWR meter. There is no "set" knob or need to mess around with anything other than the switches that select the power level. It's operation is very similar to the dual panel meters that are built into the JW Miller AT2500 Antenna Tuner of similar vintage.

Does anyone know of the availability of a SignalCrafter Model 30 or similar unit, or have a schematic that could be used to modify (add circuitry) to the existing cross needle swr meters in my MFJ Differential T Tuners? I really dislike the cross needle meters that require you to interpret the swr by reading a red line where the needles cross. I can pretty easily make a new dial scale if I can get a schematic to build the active circuitry to drive the meters.

Thanks
-- Rick AH7H

4674. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 22:59:39 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFA665B.5010903@ieee.org>
Source record: 129213
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Richard Clark wrote:
> which is fine, but how did we get the two waves, from a single source,
> BEFORE this discontinuity? Either something has not been revealed, or
> this statement is in error.

You are mixing gasoline and water. The two separate topics are:

1. What happens to two and only two coherent waves traveling in same
direction in a transmission line. There's no impedance discontinuity
to worry about.

2. What happens when two coherent waves, traveling in opposite
directions, encounter the same lossless impedance discontinuity.

Pick one and let's discuss it. Then we can discuss the other.

> Components? This dilutes the original TWO wave understanding (and
> does not respond to where the second of the two came from, a problem
> that is beginning to compound into even more complex explanations).

Again, you are mixing two completely different topics. We can discuss
each separately but we cannot discuss both in the same breath.

> However, that is trivial in comparison to the basic mis-application
> found in this quote above that denies the same operation of
> interference in BOTH directions which is a fundamental property of TWO
> COHERENT waves in a CONFINED line irrespective of all other
> embellishments offered or to be added in the future.

I have NEVER denied interference in both directions. Waves traveling in
opposite directions don't cancel. Waves traveling in the same direction
can cancel. What is it about "don't cancel" Vs "can cancel" that you don't
understand?

> The statement violates the conservation of
> energy (where did the canceled energy go?).

You don't understand. When I say the wave is canceled, I mean that the
voltage and current goes to zero. But energy CANNOT be canceled. The
cancellation of two coherent waves traveling in the same direction in
a transmission line causes an energy reflection in the opposite
direction, i.e. destructive interference causes a reflected wave of
constructive interference in the opposite direction.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4675. Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 23:01:39 UTC
From: fpkearn_twelve@rondomondo.eircom.tv.ie.au
Message-ID: <3dfa6596.1090009@news.eircom.net>
Source record: 129214
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

"Geoff" <swooutdoors@hotmail.com> wrote:

> is going to contribute to the issue. As far as your last statement, I just
> wish they put out safety first period, cellular network or not.

they do and when they dont,,,, they pay for it big-time.
a cetain airline that loaded certain things into an aircraft in florida
paid a terrible price.

any pilot who puts his/her own life on the line in order to fly
will hopefully realise (before too late) that taking risks is
not worth it.
especially when you just cant pull-over and put the hand/park brake on.

the other way of looking at it....
(this was said on a national radio station about 10 years ago)

when a doctor makes a mistake,
his/her victim(s) lies on a slab in the morgue.

when a pilot makes a mistake,
he/she may well be lying alongside his/her victim(s) in the same morgue.

4676. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 23:29:53 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <9qqkvucrvipo80re0p1euomg9c07edeikl@4ax.com>
Source record: 129215
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

On Fri, 13 Dec 2002 16:59:39 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Richard Clark wrote:
>> which is fine, but how did we get the two waves, from a single source,
>> BEFORE this discontinuity? Either something has not been revealed, or
>> this statement is in error.
>
>You are mixing gasoline and water. The two separate topics are:
>
>1. What happens to two and only two coherent waves traveling in same
>direction in a transmission line. There's no impedance discontinuity
>to worry about.
>
>2. What happens when two coherent waves, traveling in opposite
>directions, encounter the same lossless impedance discontinuity.
>
We have TWO separate topics? This is becoming more bizarre and
neither topic responds to the question quoted above. And this was the
trivial error.

Cecil, you have already admitted that this may be a failure of
your/our communications and as you have yet to offer a substitute for
yourself that is equally versed in your view - I am stepping out as
your layers of complexity are becoming absolutely Byzantine.

Write again, later, when you find a collaborator who understands you.

73's
Richard Clark, KB7QHC

4677. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 23:41:57 UTC
From: k1bqt@aol.com
Message-ID: <20021213184157.18733.00000030@mb-cq.aol.com>
Source record: 129216

>...(every)...fifth person is
carrying a handgun out in the open.<

Should have made a distinction. While most citizens may openly transport a holstered sidearm on their person without a permit, only permitted person may carry a firearm concealed from view. However, if you "carry concealed", it had better stay hidden from view to those around you at all times, or you could get into a heap of deep hazoonga. In that regard, someone with a permit may have fewer rights than someone without.

Cellphone brandishers, on the other hand, may shamelessly conceal or flaunt their fractals anywhere---like tawdry farmyard animals! Disgusting.

Rick K1BQT

4678. Re: Need advice for 433.92 reception antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 23:54:19 UTC
From: kmic5@hotmail.com
Message-ID: <da7d3410.0212131554.200cbb77@posting.google.com>
Source record: 129217

I checked out Tessco and a few others. I have to choose between a standalone antenna and a direct-connect whip style BNC antenna. What kind of performance difference can I expect between these two types?

" Uncle Peter" <radioconnectionNO@cox.netSPAM> wrote in message news:<srxJ9.15582$y14.1372365@news1.east.cox.net>...
> www.tessco.com
>

4679. Re: Phsyical/Electrical length of a parallel conductor & Log -1

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-13 23:56:38 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <zfydnTYox-WBH2egXTWc3Q@ctc.net>
Source record: 129119

> I'm study for the extra exam and there is one question that has me
puzzled.
> 300/f(MHz) X velocity = Length (meters)
> then you are supposed to divide length by four to get the physical length.
> So 14.10 MHz with a parallel conductor with a velocity factor of .95 is;
>
> 300/14.1=21.27
>
> 21.27x.95=20.21
>
> 20.21/4= 5 Meters.
>
> The question on the test says the answer is 10 meters.
>
> Should I just divide the length by 2 if it is a parallel conductor?
>
> Also I have a calculator that does not have the inverse log -1 function.
Any
> one know of a way to calculate dB loss for ERP with a calculator with no
log
> -1?
>

What is the exect question ? Are you solving for a 1/2 or a 1/4 wavelength
of line ? You do not devide the length by 2 just because it is parellel
line. It would be the same for coax or parallel line except for the
velocity factor which is about .95 for parallel lines and from about .66 to
.8 depending on the type of coax.

4680. Re: Channel Specific TV antenna construction/question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 00:07:15 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3dfb4c93_1@news1.prserv.net>
Source record: 129130

Channel Master is apparently one of the few manufacturers still making this type antenna. They have a large antenna which covers channels 2,3 and maybe 4, I forget. I bought one for channel 2 for the same reason as you have. Find a dealer, and also purchase a channel 3 insertion filter, commonly available from satellite (C-Band, Big Ugly Dish) suppliers. It will notch out channel 3 from the main antenna and provides a connection to connect the channel 3 antenna.

--
Crazy George
Remove NO and SPAM from return address
"Don" <dgilbert@nascospg.com> wrote in message
news:a235b6a6.0212130827.2f4141a@posting.google.com...
> Hi there. I currently have a tv antenna tower with a rotor and the
> best Radio Shack antenna I could buy 4 years ago. It's performance has
> been good but there is one station, channel 3 that is located a little
> over 100 miles away I would like to get. At certain times of the day
> it comes in a little but is not watchable. (Can just make out the
> lines of a person throuh the snow). I was toying with the idea of
> putting another antenna tuned to this channel on the top of the mast
> my main antenna is on. I am new to constructing antennas and all this
> but is this feasible? Coould I weld something together out of emt
> conduit? Where could I get the specifics on the size it needs to be?
> How would I hook the antennas together correctly without getting
> "ghosts" or other undesireable affects?
>
> Any help would be appreciated!

4681. Re: Phsyical/Electrical length of a parallel conductor & Log -1

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 00:22:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvkue7d2lhucb5@corp.supernews.com>
Source record: 129218

Wonder what you're trying to calculate the physical length of.

300/f(MHz) X velocity factor = one wavelength of transmission line, in meters.

A quarter wavelength of transmission line, in meters, is 1/4 this value.
A half wavelength of transmission line, in meters, is 1/2 this value.

To calculate the inverse log (base 10) of X, raise 10 to the X power.
For example, the inverse log of 2 is 10^2 = 100. The log of 100 = 2.

Roy Lewallen, W7EL

K wrote:
> I'm study for the extra exam and there is one question that has me puzzled.
> 300/f(MHz) X velocity = Length (meters)
> then you are supposed to divide length by four to get the physical length.
> So 14.10 MHz with a parallel conductor with a velocity factor of .95 is;
>
> 300/14.1=21.27
>
> 21.27x.95=20.21
>
> 20.21/4= 5 Meters.
>
> The question on the test says the answer is 10 meters.
>
> Should I just divide the length by 2 if it is a parallel conductor?
>
> Also I have a calculator that does not have the inverse log -1 function. Any
> one know of a way to calculate dB loss for ERP with a calculator with no log
> -1?
>

4682. Re: Phsyical/Electrical length of a parallel conductor & Log -1

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 01:05:53 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DFA83F9.69DAC193@shaw.ca>
Source record: 129120

K wrote:
>
> I'm study for the extra exam and there is one question that has me puzzled.

If you want a decent discussion on your post then
perhaps you should repeat the question here. As it
stands, you have just confused a few of us.

--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4683. Re: SCHUMANN RESONANCE VLF/ULF MAGNETIC WAVE STUFF???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 01:06:41 UTC
From: Dave <davenpat@btopenworld.com>
Message-ID: <ate070$rl0$3@sparta.btinternet.com>
Source record: 129121
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave,uk.radio.amateur

"J." <nordland37@hotmail.com> wrote in message
news:3dfa0e21.2107934@news.freeserve.net...
> On Fri, 13 Dec 2002 00:46:22 GMT, Richard Clark <kb7qhc@attbi.com> wrote:
>
> >GAD, I had to look down the page to see the astrological implications.
> >Consult a Boston Astrologer who also does fractal work to form a
> >double suicide pact.
>
> Would you kindly point George W. Bush in the direction of
> that astrologer?

Or indeed, any other.

Then we might enjoy the white Christmas that we normally expect.

DE G6 KHP

Dave

4684. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 01:11:08 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <tgvkvu8ob64ka29bmfi91num58mv1pgldr@4ax.com>
Source record: 129122

On 13 Dec 2002 23:41:57 GMT, k1bqt@aol.com (Rick Littlefield) wrote:

|>...(every)...fifth person is
|carrying a handgun out in the open.<
|
|Should have made a distinction. While most citizens may openly transport a
|holstered sidearm on their person without a permit, only permitted person may
|carry a firearm concealed from view. However, if you "carry concealed", it had
|better stay hidden from view to those around you at all times, or you could get
|into a heap of deep hazoonga.

How do you figure this? I have a permit and I carry concealed and
it's fine. I don't have a permit and I open carry and it's fine. But
if I'm "in between" I'm in trouble?

From Arizona Revised Statutes:

F. Subsection A, paragraph 1 of this section shall not apply to a
weapon or weapons carried in a belt holster which holster is wholly or
partially visible, or carried in a scabbard or case designed for
carrying weapons which scabbard or case is wholly or *partially*
visible or carried in luggage. Subsection A, paragraph 2 of this
section shall not apply to a weapon or weapons carried in a case,
holster, scabbard, pack or luggage which is carried within a means of
transportation or within a storage compartment, trunk or glove
compartment of a means of transportation.

Note that in AZ the law says that if your weapon is in a holster, you
can carry concealed in your car without a permit. Unfortunately, the
courts do not follow the law and have allowed the conviction of
persons who carry a holstered weapon in a vehicle. Another case of
the courts making law.

Similarly in CA the statutes say:

"12026.1. (a) Section 12025 shall not be construed to prohibit any
citizen of the United States over the age of 18 years who resides or
is temporarily within this state, and who is not within the excepted
classes prescribed by Section 12021 or 12021.1 of this code or Section
8100 or 8103 of the Welfare and Institutions Code, from transporting
or carrying any pistol, revolver, or other firearm capable of being
concealed upon the person, provided that the following applies to the
firearm:

(1) The firearm is within a motor vehicle and it is locked in the
vehicle's trunk or in a locked container in the vehicle other than the
utility or glove compartment."

The CA Attorney General says:

"California Penal Code section 12025 does not prevent a citizen of the United States over 18 years of age who is not within any of the classes excepted from firearm possession and who resides or is temporarily in California from transporting by motor vehicle any pistol, revolver, or other firearm capable of being concealed upon the person if the firearm is unloaded and in a locked container."

Note the difference. The statute doesn't say a damned thing about the weapon needing to be unloaded. The AG makes up some law and states that it does.

4685. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 01:48:00 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFA8DD0.9020006@ieee.org>
Source record: 129123
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Richard Clark wrote:
> We have TWO separate topics? This is becoming more bizarre and
> neither topic responds to the question quoted above. And this was the
> trivial error.

If you would only discuss the simple matched example at
http://www.qsl.net/w5dxp/fig2.gif
all of your questions would be answered.

According to Dr. Best, we get the two and only two waves AFTER the
discontinuity. Have you read Dr. Best's QEX article? Have you read
my web pages?

> Cecil, you have already admitted that this may be a failure of
> your/our communications and as you have yet to offer a substitute for
> yourself that is equally versed in your view - I am stepping out as
> your layers of complexity are becoming absolutely Byzantine.
> Write again, later, when you find a collaborator who understands you.

You would understand it, Richard, if you would stop the diversions
and simply discuss the example I present on my web page.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4686. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 02:01:48 UTC
From: k1bqt@aol.com
Message-ID: <20021213210148.14241.00000061@mb-cr.aol.com>
Source record: 129124

>The statute doesn't say a damned thing about the weapon needing to be unloaded. The AG makes up some law and states that it does.<

Is a handgun (no "weapons" please) loaded or unloaded if the clip is in the handle--but isn't fully engaged and there's no chambered round?

By the same token, if you're talking on a cellphone with the battery in place but not connected, are you loaded?

Rick K1BQT

4687. Re: WANT Active Dual SWR Power Meter or schematic

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 05:49:54 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DFAC682.35EE27C1@cwis.net>
Source record: 129125
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.antenna,alt.radio.amateur

Rick,
Try an Autek Research 'WM-1'. Sounds like the same thing
except for the switching...
'Doc

4688. Re: Phsyical/Electrical length of a parallel conductor & Log -1

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 06:01:20 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DFAC930.4AF5BB07@cwis.net>
Source record: 129126

'K',
Dividing 300 by the frequency in Mhz gives you one
wave length in free space. Multiplying by the velocity
factor will give you a 'physical' length in meters for
one wave length of feed line. Divide that by two and
you have the physical length of a 1/2 wave feed line in
meters. If you want the length in feet instead of meters
use 492 instead of 300.
To find ERP of an antenna system, total the component's
gain/loss figures. The total is the gain/loss figure for
the system. Don't need a log function.
'Doc

4689. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 07:03:19 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212132303.41025639@posting.google.com>
Source record: 129127

richardharrison@webtv.net (Richard Harrison) wrote in message

> A perfect ground and a 3/4-wave line would present a very high impedance
> at the dipole with no balun involved. I said may, not will mitigate r-f
> in the shack. Andy may have no balun and may not be disposed to install
> a balun.
>
> What`s best, depends on the user.

Well, maybe easiest, I don't know about best. I just can't in good conscience advocate using grounded or "tuned" coax lines to "hopefully" reduce RF in the shack. I know it doesn't work half the time unless everything is just right. I learned this the hard way running a KW+ amp, and a rig that was picky about rf in the shack. What if he tries another band? Many use parallel dipoles on one coax. Mine works 4 bands without using a tuner. A grounded 3/4 wave of coax for one certain band won't do me much good. He doesn't have to buy or make a fancy balun. Just wind a choke from his coax feedline. I think there are better baluns though than a choke, for all band use. With the proper balun, he won't need to ground the line or rig to reduce rf in the shack, and the length of the coax won't matter. The feedline won't radiate either. Nothing wrong with adding a ground if he wants one, but he should fix the real problem correctly first. And the real problem that usually causes "RF in the shack" is poor decoupling from the antenna to the feedline. IE: "common mode currents" Not a lack of ground. Either that or the antenna is in the same room... That way the problem won't be cropping up on him again when the ground dries out, or whatever. I went though that too...The bi-annual reoccurring rf problem that would come out of nowhere...
Nothing wrong with your method per say, for that exact scenario, but that scenerio won't match too many of the people that read that I bet. To me, advocating grounding schemes to cure the effects of improper antenna/feedline decoupling is like advocating bubble gum to stop leaky radiators. But to each his own I guess... This is just my opinion and I'm sure opinions on this vary. MK

4690. Re: Coaxial Dipole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 08:43:40 UTC
From: Chris Bronson <lordmastema@hotmail.com>
Message-ID: <3dfaef85$1_2@news.bluewin.ch>
Source record: 129128

<mcduffie@xactcom.net> wrote in message
news:rg8lvug41qnculm3dbfogeirtusjvrgfll@4ax.com...

> The obvious advantage of the design shown in your link is the ability to
be
> self supported by the inner tube. Conventional design would have the coax
> coming away from the antenna at right angles to the feedpoint instead of
out
> the end of the antenna. Otherwise, they are the same. The outer "tube"
> would be the coaxial shield in an HF version. The whole thing is
basically
> a folded dipole.
>
> gm

I can see your point, but other conventional VHF coaxial dipoles also have the advantage of beeing self-supporting. I was just wondering, because Wipic manufactured quite a lot of other dipoles which are all more simple from an ingeneering point of view, including coaxial dipoles with a single rod, or a folded rod, as radiator and a sceleton "tube" as the coaxial sleeve. Regards

Chris

4691. Antenna / Back of Building ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 13:35:11 UTC
From: Rickie <rickiev@hotmail.com>
Message-ID: <atfbtp$13iqhv$1@ID-89515.news.dfncis.de>
Source record: 129129

Hello, I recently passed the TECH exam and waiting for my callsign,
but I have a question.

I live on the 4th Floor of a 6 story building, and live in the back. I do
have open space and a good view. What antenna would be best used for these
condition ? I will be using 2 Meter.

Thanks..

Rickie

4692. Re: Coaxial Dipole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 15:19:54 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3dfb51af_2@news1.prserv.net>
Source record: 129131

Chris:

The top of the antenna is at DC ground for lightning protection. Find a set of old Andrew Corporation Tech Notes from the 1940s, or the IRE Professional Group on Vehicular Communications Transactions from the same decade for an in-depth discussion of this kind of design. The IRE stuff may be on-line now at IEEE, if you are a member.

--
Crazy George
Remove NO and SPAM from return address
"Chris Bronson" <lordmastema@hotmail.com> wrote in message
news:3dfa51cb_2@news.bluewin.ch...
> Hi,
>
> I recently encountered a VHF coaxial dipole manufactured by Wipic in the
> 70s. The radiating element is grounded at its upper extremity by the inner
> tube of the antenna. What are the theoretical and practical advantages of
> such a design vs. a conventional coaxial dipole? Thanking you in advance
for
> your help. Regards
>
> Chris
>
> Please find a technical drawing of the antenna on:
> http://chrisbronson.freeservers.com/Wipic_Coaxial_Dipole.gif
>
>

4693. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 15:42:36 UTC
From: richardharrison@webtv.net
Message-ID: <29932-3DFB516C-215@storefull-2318.public.lawson.webtv.net>
Source record: 129132

Mark Keith wrote:
"I just can`t in good conscience advocate using grounded or "tuned" coax lines to "hopefully" reduce RF in the shack."

Mark gave a good analysis of the problem of tuned lines. They are inconvenient for multiband use. The lengths required change with the band. The ground connection may not be good enough to clamp everything in the shack to a low r-f voltage.

Mark notes that a good balun can be a wideband device which minimizes r-f on a rig that isn`t particularly well grounded. Mark suggests winding a few turns from the coax to form a choke in the feedline as an easy way to deter r-f. This has the advantage that no special core material is required.

A grounded rig (for r-f) is probably not more susceptible to feedback. All commercial balanced antenna system rigs I`ve seen, never the less, had excellent r-f grounding on the rigs by design. No doubt some commercial installations use baluns. I`ve seen many installations, but never saw a balun in any.

Best regards, Richard Harrison, KB5WZI

4694. Re: SCHUMANN RESONANCE VLF/ULF MAGNETIC WAVE STUFF???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 17:02:53 UTC
From: redmondj <redmondj@concentric.net>
Message-ID: <3DFB64FA.6040608@concentric.net>
Source record: 129133
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.shortwave,uk.radio.amateur

The ionospheric D-region reflects VLF signals as does the earth's surface. These two reflectors make a spherical cavity with the first resonance at about 8 Hz. A very good antenna system and VLF spectrum analyzer will show a slight peak in the background noise at this frequency. There is nothing mysterious about the Schumann Resonance.

73, K6RFK

JEEPMON wrote:

>HAS ANYONE HEARD OF THIS? IT MENTIONS THE IONOSPHERE AND ELECTROMAGNETIC
>WAVES AND SOLAR CYCLES AND ELF/VLF ACTIVITY?
>
>http://www.2012.com.au/SchumannResonance.html
>
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>LOL
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>

4695. FYI: HomeBrew Antenna Roundup - Updated

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 17:26:10 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <SQJK9.65083$r4.5257314@news1.west.cox.net>
Source record: 129134

Hundreds at URL:
http://ac6v.com/antprojects.htm
And Happy Holidays to a FB Group

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com

4696. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 17:40:49 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <B2KK9.57358$hw3.8306@sccrnsc04>
Source record: 129135

Not true.
--

CW
KC7NOD
Web Page: www.kc7nod.20m.com

"Andy Cap" <no_way@co.uk> wrote in message
news:atcjpargn1@news6.svr.pol.co.uk...
> Hi David,
> From what I have read, if you get struck by lightning, then nothing can
save

4697. Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 18:35:36 UTC
From: Robert11 <rgsrose@tiac.net>
Message-ID: <atftjh$k8j$1@slb1.atl.mindspring.net>
Source record: 129136

Hello:

Using N connectors on the coax that connects a Discone in my attic to an NRD 545 being used (also) as a scanner
between 30 MHz and its 2 GHz limit. Do receiving only.

Thinking of using one of those old fashioned DPDT knife (or were they called blade or jacknife switches?) type
switches inserted in series with the coax to switch the aerial to ground, and disconnect it, when not being used.

When in use, the aerial's output would, of course, be going thru the knife switch.

Was wondering if there would be much loss due to the "high" frequencies involved ?

What about a conventional wafer type switch at these frequencies (receive only) ?

Bob

4698. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 19:16:29 UTC
From: richardharrison@webtv.net
Message-ID: <14684-3DFB838D-270@storefull-2316.public.lawson.webtv.net>
Source record: 129138

Andy Cap wrote:
"From what I have read, if you get struck by lightning, then nothing can save---."

CW wrote: "Not true."

CW is right. The broadcast stations I`ve worked in scarcely were interrupted by numerous direct hits they absorbed. The most significant damage they suffered was a pitting of their Faraday screens.

Best regards, Richard Harrison, KB5WZI

4699. Re: Hi-Q or Hamstick mobile ant ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 19:43:41 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <si2nvugo6ujff7rkqvib3pq4rjo219026n@4ax.com>
Source record: 129137

On 12 Dec 2002 16:02:23 -0800, lombryt@hotmail.com (Thierry) wrote:

>Thierry
>ONL5183
>http://www.astrosurf.com/lombry
>update : new logo and qsl page

Hi Thierry,

A nice page indeed. I like the photo of your city and the clean
design of your pages.

73's
Richard Clark, KB7QHC

4700. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 20:14:03 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DFB910B.7C5E31A5@cwis.net>
Source record: 129139

Bob,
For receive only, you can use about anything,
I seriously doubt if you need to worry about any
losses. I also seriously doubt if you need worry
about disconnecting your antenna at all.
'Doc

4701. Re: Antenna / Back of Building ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 20:16:33 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DFB91A1.4DCF4C1D@cwis.net>
Source record: 129140

Rickie,
I would think that almost any antenna you can stick out the window, or on a patio, etc., would work okay. You may not have much coverage from the 'front' side of the building, but who knows till you try it. Of course, it would be nice to have the antenna on the roof too...
'Doc

4702. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 21:06:26 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <uvn794557q041a@corp.supernews.com>
Source record: 129141

This is true in Michigan. One may receive a CPL (concealed pistol
license) after a security clearance, a stout fee, and passing an
extensive training course. The course includes demonstrating that one
can hit 8.5x11 inch targets every time at defensive distances.
I am at places where almost everyone is legally carrying. One never
sees hardware except at a firing range on the firing line.
The bad people, thereby, do not know who is, and who is not.

Regards, Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

> Rick Littlefield wrote:
> > In the US, odds are you'll never see anyone "carrying".
>

4703. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 21:34:58 UTC
From: Andy KC2SSB <nospam@nospam.com>
Message-ID: <du8nvuss0jrktrk819i2ln201e4fjhlbgk@4ax.com>
Source record: 129142

On Thu, 12 Dec 2002 19:54:50 -0000, "Andy Cap" <no_way@co.uk> wrote:

>Is earthing really necessary now that (most of us) don't use valves?
>I use a dipole for an antenna.
>

While we're on this topic, what is the best wire to use for grounding
the antenna and where is the best place to attach the wire at the
antenna end? Is it ok to run the ground wires from several antennas
along side of each other, even touching?
=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
73! de Andy KC2SSB (ex: KF4KHC/HL9HCT)
Beachwood, NJ USA Grid FM29vw
http://vhfradiobuff.tripod.com

4704. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 21:58:34 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <atg9i9$80d$1@helle.btinternet.com>
Source record: 129143

> The bad people, thereby, do not know who is, and who is not.
>
==========
And the good people do not know who is the bad people and who is not.

4705. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 22:10:21 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFBAC4D.3010905@ieee.org>
Source record: 129144

Reg Edwards wrote:
>> The bad people, thereby, do not know who is, and who is not.

> And the good people do not know who is the bad people and who is not.

All the more reason for the good people to arm themselves, Reg.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4706. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 23:28:05 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DFBBE8D.FC120E22@shaw.ca>
Source record: 129145

Robert11 wrote:
>
> Hello:
>
> Using N connectors on the coax that connects a Discone in my attic to an NRD
> 545 being used (also) as a scanner
> between 30 MHz and its 2 GHz limit. Do receiving only.
>
> Thinking of using one of those old fashioned DPDT knife (or were they called
> blade or jacknife switches?) type
> switches inserted in series with the coax to switch the aerial to ground,
> and disconnect it, when not being used.
>
> When in use, the aerial's output would, of course, be going thru the knife
> switch.
>
> Was wondering if there would be much loss due to the "high" frequencies
> involved ?
>
> What about a conventional wafer type switch at these frequencies (receive
> only) ?
>
> Bob

Why not just disconnect the coax rather than
cutting into it? The result would be the same.
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at
http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4707. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 23:35:09 UTC
From: tdonaly@aol.com
Message-ID: <20021214183509.23368.00000039@mb-mw.aol.com>
Source record: 129146

Reg wrote,
>
>> The bad people, thereby, do not know who is, and who is not.
>>
>====================
>And the good people do not know who is the bad people and who is not.
>

Moreover, the good people are the bad people when they get mad.

Tom Donaly, KA6RUH

4708. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-14 23:43:02 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212141543.1f9291f9@posting.google.com>
Source record: 129147

richardharrison@webtv.net (Richard Harrison) wrote in message
>
> Mark notes that a good balun can be a wideband device which minimizes
> r-f on a rig that isn`t particularly well grounded.

In my cases, grounding of the rig had no bearing on whether it had RF floating on it or not. If you had a common mode problem, you would have RF floating, ground or not. I've had many cases where adding a ground wire to the system when I was having shack RF problems , made no difference at all. Sometimes it made it worse. I used FS meters to find where my hot spots were. I've had cases where other feedlines to other antennas piped in RF. A FS meter will spot that quickly.

>
> A grounded rig (for r-f) is probably not more susceptible to feedback.
> All commercial balanced antenna system rigs I`ve seen, never the less,
> had excellent r-f grounding on the rigs by design. No doubt some
> commercial installations use baluns. I`ve seen many installations, but
> never saw a balun in any.

I bet they were fairly frequency limited though, and used other methods. Also I bet the gear wasn't as subceptable to RF as some of the newer ham gear. In my case, it was my habit of using outboard mike amps inside my mike bases that usually got me. I usually didn't have the problem if I used the stock hand mike. Most icoms require a mike preamp that is outboard from the radio. Even my newest 706g requires one for my low Z dynamic that I use. But it requires about half as much gain as the 730 I ran. Icoms with custom mikes and common mode problems don't usually get along. I notice the 706 is prone also. Now, take my old TS-830...It's nearly bulletproof as far as RF floating around the shack. If it act's up, you know you have a big problem. Every single time I've had a problem with RF, it's always been due to antenna or feedline problems. Not a single time was it ever due to lack of a ground. Myself, I use no "RF" ground to the shack anymore. If I need an RF ground, it's under the antenna where it belongs. I might mention that none of this has any bearing at all on the grounding I use outside for lightning. Also, I might mention that common mode current problems and SWR have no real relation. You can have a perfect match and have RF in the shack o-plenty if you lack decent decoupling. Or you can have a bad mismatch and have little at all. Or anywhere in between. The antenna /feedline decoupling is the key to avoiding these type problems. As far as shack grounding, the only useful purpose I see in it, is to keep all the gear's chassis at the same potential. I get that just plugging everything together. My puter is hooked up to all this also. It's part of my radio these

days. MK

4709. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 00:11:20 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <5r2dncaeQfGQSmagXTWcow@ctc.net>
Source record: 129152

"Robert11" <rgsrose@tiac.net> wrote in message
news:atftjh$k8j$1@slb1.atl.mindspring.net...
> Hello:
>
> Using N connectors on the coax that connects a Discone in my attic to an
NRD
> 545 being used (also) as a scanner
> between 30 MHz and its 2 GHz limit. Do receiving only.
>
> Thinking of using one of those old fashioned DPDT knife (or were they
called
> blade or jacknife switches?) type
> switches inserted in series with the coax to switch the aerial to ground,
> and disconnect it, when not being used.
>
> When in use, the aerial's output would, of course, be going thru the knife
> switch.
>
> Was wondering if there would be much loss due to the "high" frequencies
> involved ?
>
> What about a conventional wafer type switch at these frequencies (receive
> only) ?
>
> Bob
>
At 400 mhz and above I would assume that you will have about 2 db or more of
line loss. Also lets make an assumption that the switch is about 500 ohms
impedance. That puts a 10 to 1 swr bump in the line. You have to look at
it as the antenna is the signal source. That 'bump' could cause you to
loose an additional 3 to 6 db of signal . If your line losses are more ,
you could loose even more signal.

4710. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 00:18:37 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <6sj7PQsdmlC+BULHIj9zzpWDtxKQ@4ax.com>
Source record: 129148

"Robert11" <rgsrose@tiac.net> wrote:

>Hello:
>
>Using N connectors on the coax that connects a Discone in my attic to an NRD
>545 being used (also) as a scanner
>between 30 MHz and its 2 GHz limit. Do receiving only.
>
>Thinking of using one of those old fashioned DPDT knife (or were they called
>blade or jacknife switches?) type
>switches inserted in series with the coax to switch the aerial to ground,
>and disconnect it, when not being used.
>
>When in use, the aerial's output would, of course, be going thru the knife
>switch.
>
>Was wondering if there would be much loss due to the "high" frequencies
>involved ?
>
>What about a conventional wafer type switch at these frequencies (receive
>only) ?
>
>Bob

So long as you keep the switch contacts bright and clean, I can't imagine there being any signal loss your ears can hear.

The knife switch would probably have a bigger surface area for the contacts.

On the other hand, a switch designed for coax would probably offer better shielding if you're worried about picking up appliance noise.

Not sure why you want to disconnect your antenna. Since it is attic mounted, there's small chance lightning will hit it.

Bob
k5qwg

4711. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 00:23:24 UTC
From: "Dan, danl, danny boy, Redbeard, actually Greybeard now" <danl@execpc.com>
Message-ID: <3dfbcb51$0$1396$272ea4a1@news.execpc.com>
Source record: 129149

On 14 Dec 2002 23:35:09 GMT, tdonaly@aol.com (Tdonaly) sent into the ether:

>Reg wrote,
>>
>>> The bad people, thereby, do not know who is, and who is not.
>>>
>>====================
>>And the good people do not know who is the bad people and who is not.
>>
>
>Moreover, the good people are the bad people when they get mad.
Hi Tom,
Show one example, verifiable, of a person with a concealed carry permit that committed a violation of the permits rules, by using his weapon while "Getting mad" as you so poorly put it. Please, no, I know a guy stories, stay away from liberal urban legends about guns. Please, enlighten us.
>
>Tom Donaly, KA6RUH
>

4712. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 00:41:15 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <EcQK9.8470$281.1826025@news20.bellglobal.com>
Source record: 129150

"Bob Miller"
> Not sure why you want to disconnect your antenna.
> Since it is attic mounted, there's small chance lightning
> will hit it.

Lightning doesn't have to "hit" a random wire antenna to induce fairly large voltages. I assume that this is not a controversial statement.

4713. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 01:00:50 UTC
From: k1bqt@aol.com
Message-ID: <20021214200050.01882.00000020@mb-fx.aol.com>
Source record: 129151

>...the good people are the bad people when they get mad.<

A gross generalization of the worst sort. One reason Michigan's approach to concealed carry is better than many is that they require training and demonstrated proficiency as a condition of carry. Many states (including NH) do not require training or qualification. Not good.

In my view, the idea behind firearm education isn't to prevent people from carrying, but to ensure those who do know their responsibilities and understand the technology entrusted to them. We require it to drive a car or operate a ham radio, so why is it "anti-american" to require it of a gun owner??

Now, if we could only convince cellphone nutcakes to take a test so we could go to the theater or out to dinner without having to listening to those damn things playing silly tunes and watching people talk to themselves. On the bright side, the most geeky of hams among us need not worry about walking around the mall talking on 2 meters! Suddenly, they're cool amundo!

Rick K1BQT

4714. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 01:25:43 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <kSQK9.8482$281.1834316@news20.bellglobal.com>
Source record: 129153

"J. Harvey"
> Lightning doesn't have to "hit" a random wire antenna...

Sorry - disregard. Discone antenna with a knifeswitch ???

4715. screwdriver ant

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 02:10:44 UTC
From: old_man <old_man@shaw.ca>
Message-ID: <g3pnvu4su7udku12ueqv7u2nmdualcifdc@4ax.com>
Source record: 129154

Hi , has any one here got the plans to build the so called screwdriver ant?

4716. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 02:37:22 UTC
From: tdonaly@aol.com
Message-ID: <20021214213722.29498.00000065@mb-ma.aol.com>
Source record: 129155

Dan wrote,
>
>Hi Tom,
>Show one example, verifiable, of a person with a concealed carry
>permit that committed a violation of the permits rules, by using his
>weapon while "Getting mad" as you so poorly put it. Please, no, I
>know a guy stories, stay away from liberal urban legends about guns.
>Please, enlighten us.
>>
>>Tom Donaly, KA6RUH
>

There aren't very many people around here with "concealed carry
permits," although there are a few paranoiacs who carry concealed
weapons, anyway. A few months ago there was a jerk who got mad
because someone cut him off in traffic, so he speeded up, ran the
other party off the road, stopped, and was waving a gun around when
the cops arrived. They disarmed him and he got to cool off in a nice,
little, high-tech jail cell. He was lucky. If he'd done the same thing in
San Francisco, the cops would have killed him as a matter of course.
I'm glad to know that the paranoid wrecks who carry guns in your part
of the world never get mad, and always keep themselves under control.
It must be very safe there. Don't expect a visit from me anytime soon,
though.
73,
Tom Donaly, KA6RUH

4717. WTD:Motorola SM50 Ham Software

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 04:03:20 UTC
From: FM <radiovintage@hotmail.com>
Message-ID: <caTK9.1797$jN4.195510@newsread2.prod.itd.earthlink.net>
Source record: 129156
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

I picked up a Motorola SM50 UHF rig today at a police surplus auction and wondered if there is a ham version of the software available for programming this to use in the 440 band.

4718. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 04:08:16 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFC0030.3020006@ieee.org>
Source record: 129157

Tdonaly wrote:
> There aren't very many people around here with "concealed carry
> permits," although there are a few paranoiacs who carry concealed
> weapons, anyway. A few months ago there was a jerk who got mad
> because someone cut him off in traffic, so he speeded up, ran the
> other party off the road, stopped, and was waving a gun around when
> the cops arrived. They disarmed him and he got to cool off in a nice,
> little, high-tech jail cell.

Question is: Did he have a concealed carry permit? If not, he's probably
the kind of person that causes some of us to carry concealed weapons.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4719. Re: Antenna / Back of Building ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 04:10:40 UTC
From: gmz79@aol.comnospam
Message-ID: <20021214231040.21398.00000069@mb-fh.aol.com>
Source record: 129158

>Hello, I recently passed the TECH exam and waiting for my callsign,
>but I have a question.
>
>I live on the 4th Floor of a 6 story building, and live in the back. I do
>have open space and a good view. What antenna would be best used for these
>condition ? I will be using 2 Meter.
>
> Thanks..
>
>Rickie

If you want a nice 2m on the cheap and can sweat copper pipe,
build a j-pole, good gain,you can build it for under $10.
Do a web search "j-pole"
Welcome to the Hobby
kc8vif
Greg Z
to thine own sound be true

4720. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 04:40:26 UTC
From: tdonaly@aol.com
Message-ID: <20021214234026.14082.00000140@mb-cg.aol.com>
Source record: 129159

Cecil wrote,
>
>Tdonaly wrote:
>> There aren't very many people around here with "concealed carry
>> permits," although there are a few paranoiacs who carry concealed
>> weapons, anyway. A few months ago there was a jerk who got mad
>> because someone cut him off in traffic, so he speeded up, ran the
>> other party off the road, stopped, and was waving a gun around when
>> the cops arrived. They disarmed him and he got to cool off in a nice,
>> little, high-tech jail cell.
>
>Question is: Did he have a concealed carry permit? If not, he's probably
>the kind of person that causes some of us to carry concealed weapons.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>

You mean if he'd had a concealed carry permit his behavior would have been
o.k.? Strange logic.
73,
Tom Donaly, KA6RUH

4721. Re: screwdriver ant

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 04:49:22 UTC
From: jgboyles@aol.com
Message-ID: <20021214234922.18515.00000076@mb-ft.aol.com>
Source record: 129160

>Hi , has any one here got the plans to build the so called screwdriver
>ant?

The ARRL Antenna Compendium vol. 7 page 70, and another on page 89.
73 Gary N4AST

4722. Re: WTD:Motorola SM50 Ham Software

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 05:46:04 UTC
From: Bruce Lane <SpammersAreVermin@dev.null>
Message-ID: <MPG.1865b6f653b8f703989a92@news.drizzle.com>
Source record: 129161
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

In article <caTK9.1797$jN4.195510@newsread2.prod.itd.earthlink.net>,
radiovintage@hotmail.com says...

> I picked up a Motorola SM50 UHF rig today at a police surplus auction and
> wondered if there is a ham version of the software available for programming
> this to use in the 440 band.

If the unit's bandspread will allow it to tune there without
degradation, then I may be able to program it for you (need to check and
see if I have the right cable).

You -really- don't want to go chasing copies of Motorola RSS
without buying it. Their licensing agreement is positively Draconian (I
know... I had to sign it to get my stuff started!), and their legal
eagles can and will make an example of anyone who they think is
trafficking in pirated RSS.

Anyway... http://www.bluefeathertech.com/rf.html -- Let me know via
E-mail if you want me to try programming that beastie.

Keep the peace(es).

--
Bruce Lane, Owner and Head Hardware Heavy,
Blue Feather Technologies -- http://www.bluefeathertech.com
Amateur Radio: KC7GR (Formerly WD6EOS) since 12-77.
kyrrin (a/t) bluefeathertech dot-com (Reassemble to use)
"I'll get a life when someone demonstrates to me it would be superior to
what I have now..." (Taki Kogoma)

4723. Re: Antenna / Back of Building ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 06:27:08 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DFC20BC.B977D4FC@cwis.net>
Source record: 129162

greg,
Where does the gain come from?
'Doc

4724. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 06:41:33 UTC
From: Alfred Lorona <w6wqc@dslextreme.com>
Message-ID: <ath874$13u94v$1@ID-49117.news.dfncis.de>
Source record: 129163

"Robert11" <rgsrose@tiac.net> wrote in message
news:atftjh$k8j$1@slb1.atl.mindspring.net...
> Hello:
>
> Using N connectors on the coax that connects a Discone in my attic to an
NRD
> 545 being used (also) as a scanner
> between 30 MHz and its 2 GHz limit. Do receiving only.
>
> Thinking of using one of those old fashioned DPDT knife (or were they
called
> blade or jacknife switches?) type
> switches inserted in series with the coax to switch the aerial to ground,
> and disconnect it, when not being used.
>
> When in use, the aerial's output would, of course, be going thru the knife
> switch.
>
> Was wondering if there would be much loss due to the "high" frequencies
> involved ?
>
> What about a conventional wafer type switch at these frequencies (receive
> only) ?
>
> Bob

Hi all: Those old knife switches are perfect for connecting/disconnecting
and grounding open wire feedlines. Where can I find some? Been looking for
years. Haven't seen one yet!

73, AL

4725. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 11:10:28 UTC
From: richardharrison@webtv.net
Message-ID: <21608-3DFC6324-313@storefull-2314.public.lawson.webtv.net>
Source record: 129167

Mark Keith wrote:
"I bet they were fairly frequency limited though and used other methods."

Shortwave broadcast stations? You may have high-power transmitters on every available band at the same time and a few hours later every transmitter has changed bands.

Most shortwave broadcasters use balanced antennas, balanced transmission lines and well grounded transmitters and associated equipment. Often there is no ground at the antenna at all.. No baluns either as the system is balanced. Transmitter outputs are balanced. You coulld probably fit a car inside the transmitter, but you couldn`t fit one of these transmitters in a car. It may be snug in the trailer of a 18-wheeler.

Best regards, Richard Harrison, KB5WZI

4726. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 11:18:52 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFC651C.3060504@ieee.org>
Source record: 129164

Tdonaly wrote:

> Cecil wrote,
>>Question is: Did he have a concealed carry permit? If not, he's probably
>>the kind of person that causes some of us to carry concealed weapons.

> You mean if he'd had a concealed carry permit his behavior would have been
> o.k.? Strange logic.

Nope, if he had a concealed carry permit, his behavior would probably
have been akin to my behavior, i.e. not criminal. Criminals rarely bother
with carry permits. In general, the good guys bother to obtain carry permits.
The bad guys don't. The good guys bother to obtain carry permits because of
the bad guys.
--
cheers, CAM http://www.qsl.net/w5dxp

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4727. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 11:26:31 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFC66E7.2010702@ieee.org>
Source record: 129165

Alfred Lorona wrote:
> Hi all: Those old knife switches are perfect for connecting/disconnecting
> and grounding open wire feedlines. Where can I find some? Been looking for
> years. Haven't seen one yet!

Surplus Sales of Nebraska carries a heavy duty expensive one. Lowe's
Hardware in Bryan, TX carries some light duty ones suitable for 100W
operation. They are with the special stuff like nylon washers, bolts,
and nuts, and brass/stainless steel hardware. I access that special
stuff section quite often. They have the 3/8x24 threaded stuff there.
--
cheers, CAM http://www.qsl.net/w5dxp

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4728. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 11:36:55 UTC
From: richardharrison@webtv.net
Message-ID: <21608-3DFC6957-314@storefull-2314.public.lawson.webtv.net>
Source record: 129166

Al, W6WQC wrote:
"Where can I find some?"

Check a big city yellow-pages for electric equipment - used.

Best regards, Richard Harrison, KB5WZI

4729. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 11:54:53 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFC6D8D.5060803@ieee.org>
Source record: 129168

This posting of Richard's didn't reach my news-server (yet) so I am
posting my email reply to him.

Richard Fry wrote:
> (My 14 Dec 02 NG post, threaded to one of your posts in "Forward Power"):
>
> Your graphic shows a transition from 50 to150 ohms in a transmission line.
> The source and load Zs are not shown, but the load Z is also a 3:1
> mismatch, according to the reflected power shown for it.

Correct, we can deduce that the load is a 3:1 mismatch.

> Your graphic shows ALL of the power reflected from the load to be
> re-reflecting, and adding to the source power at the 3:1 mismatch in the
> line.

Yes, that is characteristic of a matched system. Zero reflected energy
flows into the transmitter. That means all energy from any and all
reflected waves is re-reflected back toward the load. There is simply
no place else for it to go.

> Questions:
>
> 1) Why doesn't the "Rho = 0.5" (correctly) shown on your graphic for your
> line mismatch correspondingly allow 25% of the power reflected from the
> load to pass through the mismatch to appear at the source? If Rho is less than
> 1.0, by definition the transition must pass _some_ power (25%, in this
> case).

Not 25%. It does allow 75%, Pref2(1-Rho2)=25W, of the 33.33W of reflected
power from the load to pass through the mismatch but it immediately encounters
Pfwd1(Rho2)=25W traveling in the same direction with equal magnitude and
opposite phase so Pfwd1(Rho2) and Pref2(1-Rho2) cancel, i.e. the sum
of their voltages is zero and the sum of their currents is zero. That's
how Pref1 gets to zero watts. But the energy in those canceled waves
cannot cancel and must change direction, i.e. be reflected. There is
simply no place else for it to go.

> 2) Same as 1 above for power arriving at the line mismatch from the
> source.

Pfwd1(Rho2)=25W is the part of Pfwd1 that is reflected by the impedance
discontinuity. It is covered in my last statement above.

> 3) If the line mismatch reflects reverse power coming back from the load,
> should it NOT also reflect power arriving from the source? Yet your
> graphic shows none.

This graphic is from web pages that explains everything. The top web page is:
http://www.qsl.net/w5dxp/waves.htm

> In summary, in your graphic the mismatch in the line behaves differently
> for power it sees from the source and from the load. From the source, it.
> reflects nothing. From the load, it reflects everything.
>
> Could you please explain this?

It doesn't behave differently. An impedance discontinuity is symmetrical. According to the superposition principle, Pfwd1 and Pref2 break down into unreflected, reflected, and re-reflected components as follows:

Pfwd1 = Pfwd1(1-Rho2) + Pfwd1(Rho2) = P1 + P3

Pref2 = Pref2(Rho2) + Pref2(1-Rhop2) = P2 + P4

P1 = Pfwd1(1-Rho2) = 75W (unreflected)

P3 = Pfwd1(Rho2) = 25W (reflected)

P2 = Pref2(Rho2) = 8.33W (re-reflected)

P4 = Pref2(1-Rho2) = 25W (reflected)

The reason that nothing is reflected toward the load is that the rearward traveling waves containing the energy components, P3 and P4, are equal in magnitude and 180 degrees out of phase and thus the sum of their voltages and currents cancel to zero because of destructive interference. Since energy cannot be destroyed, this wave cancellation causes a constructive interference of 50 watts in the opposite direction. Since the two waves involved in this interference are *reflected* waves, the constructive interference is *re-reflected* energy. The controlling equations are:

Pref1 = P3 + P4 - Interference Energy (destructive)

Pfwd2 = P1 + P2 + Interference Energy (constructive)

The sign of the Interference Energy indicates whether it is destructive or constructive, (-) for destructive and (+) for constructive.

If (Pfwd1 > P1 + P2), the interference on the load side of the discontinuity is constructive and therefore (Pref1 < P3 + P4) by the same amount, thus indicating destructive interference on the source side.

If (Pfwd1 < P1 + P2), the interference on the load side of the discontinuity is destructive and therefore (Pref1 > P3 + P4) by the same amount, thus indicating constructive interference on the source side.

If Pfwd1 = P1 + P2, there is no interference and Pref1 = P3 + P4.

The impedance discontinuity is symmetrical. Destructive interference on one side of the discontinuity is always matched by constructive interference on the other side. In fact, the migration of energy across the impedance discontinuity is what makes matching possible. No migration of energy equals no match.

--
cheers, CAM http://www.qsl.net/w5dxp

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4730. Re: Coaxial Dipole Design

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 12:17:36 UTC
From: Chris Bronson <lordmastema@hotmail.com>
Message-ID: <3dfc7356$1_4@news.bluewin.ch>
Source record: 129069

"Crazy George" <munschNO@attglobal.net.SPAM> wrote in message
news:3dfb51af_2@news1.prserv.net...
> The top of the antenna is at DC ground for lightning protection. Find a
set
> of old Andrew Corporation Tech Notes from the 1940s, or the IRE
Professional
> Group on Vehicular Communications Transactions from the same decade for an
> in-depth discussion of this kind of design. The IRE stuff may be on-line
> now at IEEE, if you are a member.

I couldn't find IRE Professional Group on Vehicular Communication
Transactions. The IEEE online library covers only IEEE Transactions on
Vehicular Technology since 1988 and unfortunatly I don't have acces to US
public libraries. Will find another way. Regards

Chris

4731. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 12:27:07 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFC751B.3090708@ieee.org>
Source record: 129070
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Richard Clark wrote:
> We have TWO separate topics?

Yes, we do, Richard. The two topics are:

1. Wave interference between two coherent waves traveling in opposite directions in a transmission line, i.e. between a forward wave and a reflected wave.

2. Wave interference between two coherent waves traveling in the same direction in a transmission line, i.e. between two forward waves or two reflected waves.

Wave interference between a forward wave and a reflected wave is relatively easy to understand. When the voltages add, the currents subtract, and vice versa. That means when we have destructive interference between the two voltages, we have a corresponding constructive interference between the two currents. When we have constructive interference between the two voltages, we have a corresponding destructive interference between the two currents. The opposite direction of movement between total voltage and total current automatically keeps the energy equation balanced.

The difficulty that you and others seem to be having is in understanding what happens between two waves traveling in the same direction in a transmission line. The voltages have the same phase and the currents have the same phase so vectorially adding them results in an overall increase or decrease in energy in the resultant wave (except when the two waves are orthogonal to each other).

An increase in energy when two waves are vectorially added must be accompanied by a decrease in energy elsewhere. A decrease in energy when two waves are vectorially added must be accompanied by an increase in energy elsewhere. The conservation of energy principle will not allow anything else to happen.

If the angle between two phasor voltages/currents is less than 90 degrees, their vectorial addition will result in constructive interference. That constructive interference must be accompanied by an equal magnitude of destructive interference. In a transmission line system with an impedance discontinuity, if constructive interference occurs on one side of the discontinuity, an equal magnitude of destructive interference must occur on the other side of the discontinuity.

If the angle between two phasor voltages/currents is 90-180 degrees, their vectorial addition will result in destructive interference which must be accompanied by an equal magnitude of constructive interference on the other side of the impedance discontinuity.

> Write again, later, when you find a collaborator who understands you.

I'm working on that, Richard.
--
cheers, CAM http://www.qsl.net/w5dxp

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4732. How radiation resistance of Monopole antenna is measured?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 12:31:54 UTC
From: mustafa_nawaz@hotmail.com
Message-ID: <578345a8.0212150431.5fcbe295@posting.google.com>
Source record: 129071

I am trainee Engineers on High Power Transmitter station.
My question is;
"How radiation resistance of uninstalled monopole antenna of high
power transmitter (say 100kwatt)is practically determined with help of
antenna structure?"
And second part of question relative to the first is;
"For the matching purpose specifically about AM High Power
Transmitter what would be Design of ANTENNA TUNING UNIT?"

4733. Re: How radiation resistance of Monopole antenna is measured?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 12:53:57 UTC
From: fractenna@aol.com
Message-ID: <20021215075357.27681.00000045@mb-mk.aol.com>
Source record: 129072

>
>I am trainee Engineers on High Power Transmitter station.
>My question is;
> "How radiation resistance of uninstalled monopole antenna of high
>power transmitter (say 100kwatt)is practically determined with help of
>antenna structure?"
>And second part of question relative to the first is;
> "For the matching purpose specifically about AM High Power
>Transmitter what would be Design of ANTENNA TUNING UNIT?"
>

These sound like test questions.
Are they questions you pursue out of knowledge, or are they ones posed as part of an examination?

Note to group: its finals time FYI.

73,
Chip N1IR

4734. Re: Antenna / Back of Building ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 13:55:34 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <cE4L9.12979$8d6.1896@news.bellsouth.net>
Source record: 129090

FWIW. I've heard that it has gain on receive. Personally not sure. But, have
been using a 300-ohm twinlead J-Pole, at 30 feet high, for almost 10 years
in a PCV pipe, with no complaints or problems.

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

"'Doc" <w5lz@cwis.net> wrote in message news:3DFC20BC.B977D4FC@cwis.net...
>
>
> greg,
> Where does the gain come from?
> 'Doc

4735. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 15:49:49 UTC
From: tdonaly@aol.com
Message-ID: <20021215104949.16072.00000040@mb-cs.aol.com>
Source record: 129073

CAM wrote,
>
>Tdonaly wrote:
>
>> Cecil wrote,
>>>Question is: Did he have a concealed carry permit? If not, he's probably
>>>the kind of person that causes some of us to carry concealed weapons.
>
>> You mean if he'd had a concealed carry permit his behavior would have been
>> o.k.? Strange logic.
>
>Nope, if he had a concealed carry permit, his behavior would probably
>have been akin to my behavior, i.e. not criminal. Criminals rarely bother
>with carry permits. In general, the good guys bother to obtain carry permits.
>The bad guys don't. The good guys bother to obtain carry permits because of
>the bad guys.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>
>
Thanks for explaining that to me Cecil.
73,
Tom Donaly, KA6RUH

4736. Re: How radiation resistance of Monopole antenna is measured?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 15:59:06 UTC
From: tdonaly@aol.com
Message-ID: <20021215105906.16072.00000041@mb-cs.aol.com>
Source record: 129074

Chip wrote,
>
>These sound like test questions.
>Are they questions you pursue out of knowledge, or are they ones posed as
>part
>of an examination?
>
>Note to group: its finals time FYI.
>
>73,
>Chip N1IR
>
>
Hi, Chip,
would you trust your grade to some of the answers you're
liable to get on this newsgroup?
73,
Tom Donaly, KA6RUH

4737. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 16:26:16 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <uvpb8u6c5p610a@corp.supernews.com>
Source record: 129075

It is called the Constitution. It expressly says we have the right to keep and bear arms. Show me the amendment that guarantees the right to operate a motor vehicle or a ham radio and the argument may apply. Otherwise apples and oranges. But, you knew that all ready and decided to trot out a tired old argument to see if the wounded duck could be made to fly...

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Rick Littlefield" <k1bqt@aol.com> wrote in message
news:20021214200050.01882.00000020@mb-fx.aol.com...
> >...the good people are the bad people when they get mad.<
>
> A gross generalization of the worst sort. One reason Michigan's approach
to
> concealed carry is better than many is that they require training and
> demonstrated proficiency as a condition of carry. Many states (including
NH) do
> not require training or qualification. Not good.
>
> In my view, the idea behind firearm education isn't to prevent people from
> carrying, but to ensure those who do know their responsibilities and
understand
> the technology entrusted to them. We require it to drive a car or operate
a ham
> radio, so why is it "anti-american" to require it of a gun owner??
>
> Now, if we could only convince cellphone nutcakes to take a test so we
could go
> to the theater or out to dinner without having to listening to those damn
> things playing silly tunes and watching people talk to themselves. On the
> bright side, the most geeky of hams among us need not worry about walking
> around the mall talking on 2 meters! Suddenly, they're cool amundo!
>
> Rick K1BQT

4738. Simple horizontal antenna advice II

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 16:34:53 UTC
From: Steve <no.sp@m.please>
Message-ID: <ja2L9.1621$Om2.220706@newsfep2-win.server.ntli.net>
Source record: 129076

(Apologies if this post is duplicated - my main ISP's NTP server seems to be faulty)

Hi,

Thanks for everyones advice on my last post a few weeks ago.

I've since constructed the longest dipole I could install and fed this this with homebrew 600 ohm feeder (6 inch spacing). The full length of the antenna is 120 feet with it sloping from 30 feet down to about 15 feet. The feeder is approx 60 feet long.

Whilst the antenna seems to load up OK (certainly on 40, 20 and 15) I'm wondering if my installation could be improved. The shack is in the converted attic and one end of the antenna is attached to the chimney. Therefore, the feeder leaves the feedpoint, drops a few feet and then rises again to enter the shack. The feeder almost runs parallel to the antenna with it being offset by about 6 feet as it enters the building.

Clearly the feeder in such proxity to the antenna will affect the performance but to what degree? I'm wondering if it is worth a) extending the feeder so the "sag" is greater or b) letting the feeder drop and putting a remote balun in, feeding the ATU with coax?

Thanks for any advice,

Steve M3ZQO

4739. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 16:41:07 UTC
From: "Dan, danl, danny boy, Redbeard, actually Greybeard now" <danl@execpc.com>
Message-ID: <3dfcb07b$0$1399$272ea4a1@news.execpc.com>
Source record: 129078

On 15 Dec 2002 02:37:22 GMT, tdonaly@aol.com (Tdonaly) sent into the ether:

>Dan wrote,
>>
>>Hi Tom,
>>Show one example, verifiable, of a person with a concealed carry
>>permit that committed a violation of the permits rules, by using his
>>weapon while "Getting mad" as you so poorly put it. Please, no, I
>>know a guy stories, stay away from liberal urban legends about guns.
>>Please, enlighten us.
>>>
>>>Tom Donaly, KA6RUH
>>
>
>There aren't very many people around here with "concealed carry
>permits," although there are a few paranoiacs who carry concealed
>weapons, anyway. A few months ago there was a jerk who got mad
>because someone cut him off in traffic, so he speeded up, ran the
>other party off the road, stopped, and was waving a gun around when
>the cops arrived. They disarmed him and he got to cool off in a nice,
>little, high-tech jail cell. He was lucky. If he'd done the same thing in
>San Francisco, the cops would have killed him as a matter of course.
>I'm glad to know that the paranoid wrecks who carry guns in your part
>of the world never get mad, and always keep themselves under control.
>It must be very safe there. Don't expect a visit from me anytime soon,
>though.
>73,
>Tom Donaly, KA6RUH
>
The usual DRIVAL. You are becoming pitiful.

4740. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 16:41:55 UTC
From: "Dan, danl, danny boy, Redbeard, actually Greybeard now" <danl@execpc.com>
Message-ID: <3dfcb0ab$0$1399$272ea4a1@news.execpc.com>
Source record: 129077

On 15 Dec 2002 04:40:26 GMT, tdonaly@aol.com (Tdonaly) sent into the ether:

>Cecil wrote,
>>
>>Tdonaly wrote:
>>> There aren't very many people around here with "concealed carry
>>> permits," although there are a few paranoiacs who carry concealed
>>> weapons, anyway. A few months ago there was a jerk who got mad
>>> because someone cut him off in traffic, so he speeded up, ran the
>>> other party off the road, stopped, and was waving a gun around when
>>> the cops arrived. They disarmed him and he got to cool off in a nice,
>>> little, high-tech jail cell.
>>
>>Question is: Did he have a concealed carry permit? If not, he's probably
>>the kind of person that causes some of us to carry concealed weapons.
>>--
>>cheers, CAM http://www.qsl.net/w5dxp
>>
>
>You mean if he'd had a concealed carry permit his behavior would have been
>o.k.? Strange logic.
>73,
>Tom Donaly, KA6RUH
More of the usual DRIVAL.

4741. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 16:45:06 UTC
From: k1bqt@aol.com
Message-ID: <20021215114506.01839.00000034@mb-fx.aol.com>
Source record: 129079

Tom, it bothers me that permits are issued in most states (including my own) without a comprehensive education requirement. Anyone who's trained properly knows at a visceral level that brandishment is a cardinal sin--and that only a suicidal nutcake would consider it.

Unfortunately, as Cecil suggests, those with the poorest impulse control rarely seek training or permits. Hell, it's not rocket science! Who has the time or patience for hours of tedious classes and all that stupid paperwork?

The more proficient citizen handgun owners I know typically read a lot, spend an hour or two at the range every month, and periodically attend a proficiency workshop (SIG Arms, LFI, etc). NRA isn't much help. Despite a very successful Hunter Safety Program, I think they've dropped the ball on defensive handgun training for adults. I'd like to see less political grandstanding and more grassroot effort at training.

In the end, though, when it comes to avoiding carnage on the highway, I'd feel far safer with a hand-held noise generator that terminates cellphone communication over a 1/4-mile radius than I would with a clammy handgun stuffed in my shorts that's pointed straight at my private parts. You gotta use your head and choose the right tool for the job!!

Rick K1BQT

4742. Re: Windom Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 16:59:00 UTC
From: N4LQ <N4LQ@igLou.com>
Message-ID: <3dfcb4b5_2@news.iglou.com>
Source record: 129080

Use the modern version Windom with coax and 4:1 balun feed. I use one cut for 160m fed with RG-213 and a 4:1 current balun at the feedpoint. I put a 10 turn loop of coax at the base of the tower to help reduce RF on the shield. Results are fantastic. I have a tiny bit of RF in the shack showing on my field strength meter but only on 160m. All other bands are totally free of any RFI. SWR is low enough on all bands, except 30m, to get buy without a tuner making band hopping quick and easy. No switches to flip or knobs to crank.
My Windom is about 270ft long and resonates toward the lower end of 160 and 80m. If you cut it for the higher end of those bands, it will miss the higher bands and a tuner may be required for all high bands. Since I op mostly cw, this worked out great for me.
This antenna is at 60ft height at the feedpoint on the tower. The short end goes to a tree and the long end has a 45 degree bend and attaches to 2 trees all at 50-60ft heights.
I feed it .174 off center. Read the article by Cebik at:
http://www.cebik.com/gup/gup9.html
The feedline does tend to become part of the antenna. A "line isolator" beneath the balun might further help cool off the coax. I tried grounding the coax at various points and this influenced my tuning. Some experimentation will be needed with any installation. If you run into problems with RFI, try adding or removing some coax. The balun is available from Radio Works and is called the W2DU design. Don't bother trying to use the cheaper W2AU design. You will have problems on the higher frequencies with that one. I run 500 watts into the DU balun with no heating. It's questionable whether this balun can handle 1.5kw however.
73
--
Steve N4LQ.
"KC1DI" <elbc2@gwi.net> wrote in message
news:h2jjvu0ahdrt8kqne29nk446n14pn6r33k@4ax.com...
> Anyone using a version of the windom antenna and if so what results
> have you noticed. thinking of building one so please include
> construction notes that you feel will be helpful. the way my house
> and lots are situated ceter feed is not really and option--thanks ,73
> dave
>

4743. Re: How radiation resistance of Monopole antenna is measured?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 17:42:02 UTC
From: fractenna@aol.com
Message-ID: <20021215124202.12383.00000104@mb-df.aol.com>
Source record: 129081

>
>Chip wrote,
>>
>>These sound like test questions.
>>Are they questions you pursue out of knowledge, or are they ones posed as
>>part
>>of an examination?
>>
>>Note to group: its finals time FYI.
>>
>>73,
>>Chip N1IR
>>
>>
>Hi, Chip,
> would you trust your grade to some of the answers you're
>liable to get on this newsgroup?
>73,
>Tom Donaly, KA6RUH
>

Heheh!

Apparently many students do:-) Happy holidays

73,
Chip N1IR

4744. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 17:49:53 UTC
From: tdonaly@aol.com
Message-ID: <20021215124953.16044.00000054@mb-cs.aol.com>
Source record: 129082

>
>Tom, it bothers me that permits are issued in most states (including my own)
>without a comprehensive education requirement. Anyone who's trained properly
>knows at a visceral level that brandishment is a cardinal sin--and that only
>a
>suicidal nutcake would consider it.
Rick wrote,
>
>Unfortunately, as Cecil suggests, those with the poorest impulse control
>rarely
>seek training or permits. Hell, it's not rocket science! Who has the time or
>patience for hours of tedious classes and all that stupid paperwork?
>
>The more proficient citizen handgun owners I know typically read a lot, spend
>an hour or two at the range every month, and periodically attend a
>proficiency
>workshop (SIG Arms, LFI, etc). NRA isn't much help. Despite a very successful
>Hunter Safety Program, I think they've dropped the ball on defensive handgun
>training for adults. I'd like to see less political grandstanding and more
>grassroot effort at training.
>
>In the end, though, when it comes to avoiding carnage on the highway, I'd
>feel
>far safer with a hand-held noise generator that terminates cellphone
>communication over a 1/4-mile radius than I would with a clammy handgun
>stuffed
>in my shorts that's pointed straight at my private parts. You gotta use your
>head and choose the right tool for the job!!
>
>Rick K1BQT
>

I agree with you entirely. I haven't had a handgun pointed at me since 1967,
but
I can't walk across the street, anymore, without almost being run down by
someone trying
to turn a corner, and dial a cell phone at the same time with only a tenuous
grip on the steering wheel.
73,
Tom Donaly, KA6RUH

4745. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 17:58:28 UTC
From: tdonaly@aol.com
Message-ID: <20021215125828.16044.00000058@mb-cs.aol.com>
Source record: 129083

Fred wrote,
>
>
>It is called the Constitution. It expressly says we have the right to keep
>and bear arms. Show me the amendment that guarantees the right to operate a
>motor vehicle or a ham radio and the argument may apply. Otherwise apples
>and oranges. But, you knew that all ready and decided to trot out a tired
>old argument to see if the wounded duck could be made to fly...
>

The Ninth Circuit Court of Appeals ruled that the Constitution just gives
us the right to join a militia. What militia do you belong to Fred?
73,
Tom Donaly, KA6RUH

4746. Re: Pager QRM

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 18:42:57 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <46jpvu01d73ldb6l7v35obc4n9a0uu978m@4ax.com>
Source record: 129084

On Sat, 14 Dec 2002 23:58:32 -0000, Tom <Tom@invalid.com> wrote:

>
>Hi,
>
>On Dec 12 2002, Tom wrote:
>
>> ...full scale QRM on the 2 meter band...
>
>Thanks everyone for the replies. Looks like a filter is in my future.

We had that problem and it turned out to be a spur from a paging
system about 40 miles from us. I regularly hear paging on 147.6,
sometimes strong enough to cause the system to appear to have low
sensitivity.

Roger (K8RI EN73)
>
>Tom

4747. Re: How radiation resistance of Monopole antenna is measured?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 18:57:02 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <qijpvus0kks7oal210lv5ff5k3gooqrcee@4ax.com>
Source record: 129085

On 15 Dec 2002 04:31:54 -0800, mustafa_nawaz@hotmail.com (Muhammad Mustafa Nawaz) wrote:

>I am trainee Engineers on High Power Transmitter station.
>My question is;
> "How radiation resistance of uninstalled monopole antenna of high
>power transmitter (say 100kwatt)is practically determined with help of
>antenna structure?"
>And second part of question relative to the first is;
> "For the matching purpose specifically about AM High Power
>Transmitter what would be Design of ANTENNA TUNING UNIT?"

Hi Muhammad,

This is relatively simple and generally covered within the first chapter or two of any antenna design reference. Consult Kraus as an eminent author on the subject. For the simple monopole of quarterwave construction it resolves to a figure in the mid 30's of Ohms (37 Ohms to pick a value) IFF there is a corresponding, well developed earth ground system, or if elevated, a ground plane.

There are two ways to determine, the empirical way, and the theoretical way. If the two answers do not converge, the difference is generally attributable to loss in the system (which includes that same ground mentioned). Either method usually boils down to observing the amount of current fed into the structure, at the feed point, and measuring the total radiated power. Not that difficult for a simple structure either way. There are other common commercial structures that are larger than quarter wave, but the methods are not that very different conceptually.

There is nothing inherently different between an antenna designed for amateur use and commercial use except for the concerns of a commercial operation requiring much more robustness (generally for continuous duty, every day for decades). The differences are also revealed in bandwidth, but that goes beyond the scope of your question.

73's
Richard Clark, KB7QHC

4748. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 19:01:33 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <dk4L9.240298$GR5.80387@rwcrnsc51.ops.asp.att.net>
Source record: 129086

The knife switches pictured on your website look to be the same ones Radio Shack sells. They are a stock item and should be available at any RS store.
"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message news:3DFC66E7.2010702@ieee.org...
> Alfred Lorona wrote:
> > Hi all: Those old knife switches are perfect for connecting/disconnecting
> > and grounding open wire feedlines. Where can I find some? Been looking for
> > years. Haven't seen one yet!
>
> Surplus Sales of Nebraska carries a heavy duty expensive one. Lowe's
> Hardware in Bryan, TX carries some light duty ones suitable for 100W
> operation. They are with the special stuff like nylon washers, bolts,
> and nuts, and brass/stainless steel hardware. I access that special
> stuff section quite often. They have the 3/8x24 threaded stuff there.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
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4749. Re: Simple horizontal antenna advice II

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 19:19:52 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFCD5D8.5090309@ieee.org>
Source record: 129087

Steve wrote:
> Clearly the feeder in such proxity to the antenna will affect the
> performance but to what degree? I'm wondering if it is worth a)
> extending the feeder so the "sag" is greater or b) letting the feeder
> drop and putting a remote balun in, feeding the ATU with coax?

Check out the all-HF-band dipole on my web page. It is about the
same length as yours and uses 450 ohm ladder-line as the feeder.
You will get a better match with your feedline at about 100 ft.
You can get a near perfect match if you vary the length of your
ladder-line using a method similar to mine.
--
cheers, CAM http://www.qsl.net/w5dxp

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4750. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 19:24:09 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFCD6D9.50204@ieee.org>
Source record: 129088

Tdonaly wrote:
> The Ninth Circuit Court of Appeals ruled that the Constitution just gives
> us the right to join a militia.

Fortunately for us private citizens outside or the jurisdiction of the Ninth,
the US Supreme Court has ruled otherwise. On many issues, the Ninth is OTL.
--
cheers, CAM http://www.qsl.net/w5dxp

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4751. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 19:27:45 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFCD7B1.9080304@ieee.org>
Source record: 129089

CW wrote:
> The knife switches pictured on your website look to be the same ones Radio
> Shack sells. They are a stock item and should be available at any RS store.

I got those for $2 each at a surplus store in Tucson, AZ which has
been buldozed to make way for the interstate. They are a little
better quality than Radio Shack.
--
cheers, CAM http://www.qsl.net/w5dxp

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4752. Re: Simple horizontal antenna advice II

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 20:23:41 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DFCE4CD.1038E19F@cwis.net>
Source record: 129091

Steve,
Having the feed line parallel the antenna for any length
isn't exactly the 'best' idea in the world. But, that depends
a lot on what you have available to work with. Making the
feed line 'sag' more may help, and naturally, having it come
away from the antenna at a right angle would be 'more better'.
If you have the extra feed line to play with, why not see what
happens? At the worst, you can always shorten it again.
'Doc

4753. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 20:28:18 UTC
From: Russ <carlzomer@hotmail.com>
Message-ID: <v4ppvus81i67148nuke5i37rlgrorrskso@4ax.com>
Source record: 129092

On 15 Dec 2002 17:58:28 GMT, tdonaly@aol.com (Tdonaly) wrote:

>Fred wrote,
>>
>>
>>It is called the Constitution. It expressly says we have the right to keep
>>and bear arms. Show me the amendment that guarantees the right to operate a
>>motor vehicle or a ham radio and the argument may apply. Otherwise apples
>>and oranges. But, you knew that all ready and decided to trot out a tired
>>old argument to see if the wounded duck could be made to fly...
>>
>
>The Ninth Circuit Court of Appeals ruled that the Constitution just gives
>us the right to join a militia. What militia do you belong to Fred?
>73,
>Tom Donaly, KA6RUH
>
According to Title 10, USC, section 311, pretty much all of us are in
the "unorganized militia". Paragraphs A and C are the relevant ones.
Also, contrast the Ninth Circuit's decision with the Fifth Circuit's
finding that it is indeed an individual right, the Emerson case. Hmm,
sounds like the SC is going to have to deny certiorari to both in
order to continue to evade this "hot wire" issue.

Russ

4754. Re: Antenna / Back of Building ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 20:43:19 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DFCE967.3C08C167@cwis.net>
Source record: 129093

Chuck,
If you compare two 1/2 wave length antennas of the same
polarization, at the same height etc., will one have any
gain in relation to the other? It doesn't really matter
'where' you feed them, from one end, from the middle, or
if you bent one half of the antenna around and feed it like
a 'J'-pole. Does it?
'Doc

4755. Re: Antenna / Back of Building ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 21:42:28 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <7t9L9.19730$6z5.6646@news.bellsouth.net>
Source record: 129106

I agree that everything equal, there won't be a difference. I was just reporting what I had been told. BTW, the other fellow swears it gives 3db gain on receive. kinda hard to believe that it would show gain on receive and not on transmit. I could be wrong, antenna design isn't my best subject (and I hope to learn more)

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

"'Doc" <w5lz@cwis.net> wrote in message news:3DFCE967.3C08C167@cwis.net...
>
>
> Chuck,
> If you compare two 1/2 wave length antennas of the same
> polarization, at the same height etc., will one have any
> gain in relation to the other? It doesn't really matter
> 'where' you feed them, from one end, from the middle, or
> if you bent one half of the antenna around and feed it like
> a 'J'-pole. Does it?
> 'Doc

4756. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 21:55:28 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <psspvuoo9t5njmd2ebrf04a59tf9abco0h@4ax.com>
Source record: 129094

On Sun, 15 Dec 2002 13:27:45 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

|
|I got those for $2 each at a surplus store in Tucson, AZ which has
|been buldozed to make way for the interstate.

Ah yes progress. We're spending $50*10^6 to put in this interchange,
the sole purpose of which is to make it easier to transition from I-10
to I-19.

"Interstate" 19, despite its nomenclature actually isn't "interstate"
but "intrastate", unless of course, your considering the state of
Sonora in Mexico. This 65 mile (oops sorry--100 KM) long highway from
Tucson to Nogales is projected to expand from 4 lanes to 10 lanes in
the future.

Your tax money working to make it easier for unsafe Mexican trucks to
haul produce and drugs to the USA.

But returning to topic.

I would never use a knife switch in a transmission line that is
operating in this frequency range, especially coax.

Any estimates of increased loss are wild leaps of imagination. At the
upper end of the frequency range, the switch is an appreciable
fraction of a wavelength long, and being non-coaxial, is more than a
slight impedance bump.

4757. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 22:34:09 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFD0361.7050209@ieee.org>
Source record: 129095

Wes Stewart wrote:
> I would never use a knife switch in a transmission line that is
> operating in this frequency range, especially coax.
>
> Any estimates of increased loss are wild leaps of imagination. At the
> upper end of the frequency range, the switch is an appreciable
> fraction of a wavelength long, and being non-coaxial, is more than a
> slight impedance bump.

I don't use them on coax, only on "450" ohm ladder-line. The spacing
on the ladder-line is about 3/4" and the spacing between the knife
switch conductors is about 5/8". I am not aware of more than a slight
impedance bump using ladder-line.
--
cheers, CAM http://www.qsl.net/w5dxp

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4758. Anyone know where any arrl book cds might be available for download?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 22:35:17 UTC
From: tronic69@hotmail.com
Message-ID: <Fs7L9.241649$GR5.81352@rwcrnsc51.ops.asp.att.net>
Source record: 129096

?

4759. Re: Antenna / Back of Building ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 22:42:59 UTC
From: Luke <Luke@soapam.com>
Message-ID: <3DFD0571.B8949772@soapam.com>
Source record: 129097

Hi,

Try the half square for two meters, you can build this fast and for a few
dollars
or less if you have some # 12 thhn wire and some pvc pipe around.

http://www.cebik.com/hs.html

Dr. Cebik has a wealth of information on his web site.

You can build more antenna after you get on the air !

73

Enjoy your antenna.

Rickie wrote:

> Hello, I recently passed the TECH exam and waiting for my callsign,
> but I have a question.
>
> I live on the 4th Floor of a 6 story building, and live in the back. I do
> have open space and a good view. What antenna would be best used for these
> condition ? I will be using 2 Meter.
>
> Thanks..
>
> Rickie

4760. Re: Anyone know where any arrl book cds might be available for download?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 22:44:06 UTC
From: Luke <Luke@soapam.com>
Message-ID: <3DFD05B5.A479A246@soapam.com>
Source record: 129098

You could try email to ARRL and ask, I don't think these are available
to download.

73

tronic69@hotmail.com wrote:

> ?

4761. Copper to Stainless?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 22:52:32 UTC
From: Ron <rons533@dejazzd.com>
Message-ID: <3DFD0560.5F9@dejazzd.com>
Source record: 129100

I need to solder a copper wire to stainless steel. Is there a flux that can be used to do this?

Thanks

4762. Re: Anyone know where any arrl book cds might be available for download?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 22:52:42 UTC
From: tronic69@hotmail.com
Message-ID: <_I7L9.241738$GR5.81934@rwcrnsc51.ops.asp.att.net>
Source record: 129099

well i know the newer ones arent(kinda obvious)
but i figured maybe they would have released some of the older stuff

4763. Re: Copper to Stainless?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 23:39:49 UTC
From: gmz79@aol.comnospam
Message-ID: <20021215183949.16941.00000062@mb-cf.aol.com>
Source record: 129101

"Staybrite'' flux and a silver bearing solder should get you there.

KC8VIF
Greg Z
to thine own sound be true

4764. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 23:40:48 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212151540.3c43adbe@posting.google.com>
Source record: 129102

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<21608-3DFC6324-313@storefull-2314.public.lawson.webtv.net>...
> Mark Keith wrote:
> "I bet they were fairly frequency limited though and used other
> methods."
>
> Shortwave broadcast stations? You may have high-power transmitters on
> every available band at the same time and a few hours later every
> transmitter has changed bands.
>
> Most shortwave broadcasters use balanced antennas, balanced transmission
> lines and well grounded transmitters and associated equipment. Often
> there is no ground at the antenna at all.. No baluns either as the
> system is balanced. Transmitter outputs are balanced. You coulld
> probably fit a car inside the transmitter, but you couldn`t fit one of
> these transmitters in a car. It may be snug in the trailer of a
> 18-wheeler.
>
> Best regards, Richard Harrison, KB5WZI

Thats my point. They used a system that is balanced for the antenna,
feedline, etc. Makes things easy. No ground needed at the antenna
being it's balanced and complete, and I bet the ground at the shack
was more to do with lightning protection and insuring all pieces are
at the same potential, rather than trying to cure a common mode or
"rf" in the shack problem . Nothing really to cure with their setup
assumming all is balanced. I'm glad my transmitters aren't that
big...:/
I have enough problems moving my henry console around. I had to bring
it here in the back of a truck. It wouldn't fit in a car either
without banging it up. My next amp will be solid state I'm fairly
sure. I want a little 500w solid state job to go with my 706. I'll
have a portable high power station that fits in two pistol cases, and
runs off battery power. Probably two or three batteries at that...One
for the rig, and two for the amp.
MK

4765. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 23:57:44 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <uvq5nemtisj1a5@corp.supernews.com>
Source record: 129103

I am a member of the unorganized militia as defined. I would suggest you look up the term. Next the Constitution says nothing about being a member to have arms. It does say that because we need a "well regulated" (Meaning guns that have been sighted in and ready for use) militia. It was necessary for all men to have the right to keep and bare arms.

A few quotes are in order...

"I ask, sir, what is the militia? It is the whole people, except for a few public officials."
-- George Mason, 3 Elliot, Debates at 425-426.
"A militia, when properly formed, are in fact the people themselves ... and include all men capable of bearing arms."
--Richard Henry Lee, Senator, First Congress, Additional Letters from the Federal Farmer(1788)

"Whenever governments mean to invade the rights and liberties of the people, they always attempt to destroy the militia, in order to raise an army upon their ruins."
--Rep. Elbridge Gerry of Massachusetts, spoken during floor debate over the Second Amendment, I Annals of Congress at 750, August 17, 1789.

"The militia, when properly formed, are in fact the people themselves. ...(T)he Constitution ought to secure a genuine (militia) and guard against a select militia, by providing that the militia shall always be kept well organized, armed, and disciplined, and include...all men capable of bearing arms..."
--Richard Henry Lee, writing in "Letters from the Federal Farmer to the Republic," (1788) p.169.

To suppose arms in the hands of citizens, to be used at individual discretion, except in private self-defense, or by partial orders of towns, countries or districts of a state, is to demolish every constitution, and lay the laws prostrate, so that liberty can be enjoyed by no man; it is a dissolution of the government. The fundamental law of the militia is, that it be created, directed and commanded by the laws, and ever for the support of the laws.
---John Adams, A Defense of the Constitutions of the United States 475 (1787-1788)

"Who are the militia? Are they not ourselves? Is it feared, then, that we shall turn our arms each man against his own bosom? Congress shall have no power to disarm the militia. Their swords and every other terrible implement of the soldier, are the birth-right of an American ....The unlimited power of the sword is not in the hands of either the federal or the state governments, but where I trust in God it will ever remain, in the hands of

the People."
--Tench Coxe, Pennsylvania Gazette, Feb. 20, 1788.

"We will not be driven by fear into an age of unreason if we ... remember
that we are not descended from fearful men, not from men who feared to
write, to speak, to associate and to defend causes which were, for the
moment unpopular."
--E.R. Murrow

"The militia is the dread of tyrants and the guard of freemen."
--Gov. R. Lucas, former Major General of the Ohio Militia, 1832

"The United States should get rid of its militias."
-- Stalin, 1933 (btw, Stalin killed 20,000,000 of his own citizens!)

"As the greatest danger to liberty is from large standing armies, it is best
to prevent them by an effectual provision for a good militia."
--James Madison, notes of debates in the 1787 Federal Convention

"The signification attributed to the term, Militia, appear from the debates
in the Convention, the history and legislation of Colonies and States, and
the writings of approved commentators. These show plainly enough that the
Militia comprised all males physically capable of acting in concert for the
common defense... And further, that ordinarily when called for service these
men were expected to appear bearing arms supplied by themselves and of a
kind in common use at the time."
--US Supreme Court, US v Miller 1939

"In the beginning of change, the patriot is a scarce man; brave, hated and
scorned. When his cause succeeds, however, the timid join him, for then it
costs nothing to be a patriot"
--Twain

.

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Tdonaly" <tdonaly@aol.com> wrote in message
news:20021215125828.16044.00000058@mb-cs.aol.com...
> Fred wrote,
> >
> >
> >It is called the Constitution. It expressly says we have the right to
keep
> >and bear arms. Show me the amendment that guarantees the right to operate
a
> >motor vehicle or a ham radio and the argument may apply. Otherwise apples

> >and oranges. But, you knew that all ready and decided to trot out a tired
> >old argument to see if the wounded duck could be made to fly...
> >
>
> The Ninth Circuit Court of Appeals ruled that the Constitution just gives
> us the right to join a militia. What militia do you belong to Fred?
> 73,
> Tom Donaly, KA6RUH
>
>

4766. Re: Antenna / Back of Building ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-15 23:58:19 UTC
From: gmz79@aol.comnospam
Message-ID: <20021215185819.16941.00000063@mb-cf.aol.com>
Source record: 129104

>greg,
> Where does the gain come from?
> 'Doc

Haven't really nailed that one down yet,
However I believe the stub pulls the radiation pattern towards the ground,but
also the antenna exhibits a fair amount of front to back.
I raised mine up 8 more feet and coundn't figure out why a repeater
I was hitting 80 miles away with 5 watts now took ten,thought maybe the trees
were affecting the swr,checked that,it was ok,but while I was up there I
figured I'd tweak it. About fve up and downs with the thing my repeater reports
conflicted with my swr readings.
I smoked a cig and scratched my head, noticing the orientation was
different then when I first put it up. I spun that baby around to where I had
it originally and low and behold I was whacking the repeater full queting on
only 3 watts. Next step is to set the baby up in an open field and try to plot
the prop. pattern with a FS meter and a step ladder.

KC8VIF
Greg Z
to thine own sound be true

4767. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 00:24:27 UTC
From: richardharrison@webtv.net
Message-ID: <11277-3DFD1D3B-180@storefull-2313.public.lawson.webtv.net>
Source record: 129105

CAM wrote:
"The difficulty that you and others seem to be having is in
understanding what happens between the waves---."

Consider a lossless line carrying a wave. the incident wave makes a
voltage and a current. Everywhere on the line, the incident volts
diviided by the icident amps poduces the same ratio, Zo.

If the incident wave encounters a mismatch, part of the incident energy
bounces, creatting a reflected wave, traveling back towards the source
of the incident wave. This wave has a polarity distinguishing it from
the incident wave. The reflected wave has its volts and amps
out-of-phase. They are 180-degrees out.
The reflected wave`s voltage to current ratio must, like the incident
wave, equal to Zo, but in the reflected wave the sign is reversed, and
the ratio is -Zo at the load. (formula 4-11, Terman 1955)

Terman says ---"the reflected wave on a transmission line can be
described as a voltage accompanied by a current proportional to the
voltage flowing away from the load---."

Terman says the incident wave must satisfy Zo at the load. Terman says
the reflected wave must satisfy -Zo at the load.

Terman says the load voltage must equal the sum of the incident ad
reflected voltages.

Terman says the load current must equal the sum of the incident and
reflected currents.

Terman says the vector ratio, E-load / I-load , must equal Z-load. Those
are not minus signs.

The vector ratio of the reflected volts to the incident volts (can`t
exceed 1, obviously) is called the load`s "reflection coefficient". It
has both magnitude and phase. Reactance may be part of the load.

In a lossless line, the refection coefficient is a constant amplitude
anywhere on the line ff there are no other impedance bumps. A lossy line
would cause attenuation of the reflection, and growth of the incident
wave, in checking points closer to the original source.

If no directional coupler is used to separate forward and reflected
waves, sensing will
include a composite of both waves.

In a good transmsson line, Zo = sq. Rt. L/C. The incident and reflected
waves see the same Zo as it represents the same impediment coming or

going. At r-f, Zo is independent of frequency over a huge range.

As a wave takes time to travel a particular length along the line, and the phase rotation of the source continues to advance during the travel time, a given point on the traveling wave is being shifted in phase from the voltage and current at any instant at the source.

On open-wire lines, waves usually travel near the speed of light. On coax, speed may be only 2/3 the speed of light, or it may be some other fraction.

Terman says that in the case of a line with an open circuit, the reflection coefficient is 1 on an angle of zero. That says that the reflected wave is equal in magnitude to the incident wave and the reflected volts have the same phase as the incident volts. These volts add together arithmetically. They double at the open-circuit from the magnitude of the incident volts. Eload = 2Eincident. We used to call this the "Ferranti effect". The incident and reflected currents are also equal, but they are out-of-phase, so they cancel. Their energy isn`t destroyed but tranfers momentarily to the E-field as represented by the doubled voltage at the open-circuit. A short distance back from the load (open-circuit), normal voltage and current reappear. The varying electric field is able to generate a new magnetic field, and vice versa.

Waves traveling in opposite directions remain separabler by using a directional coupler. This proves energy moves in both directions with no mutual distruction.

Taken together, the waves make the familiar SWR patterns. Current is shifted 90-degrees from the voltage. Current and voltage patterns repeat in every half-wavelength along the line. This results from the velocity at which the waves pass through each other when traveling in opposite directions. It`s double that of either wave. Voltages add where currents subtract and vice versa.

Terman explains what happens with almost any imaginable load, short-circuit, matched, reactive, etc. He tells it better than I can.

Terman says that: "----irrespective of the relative amplitudes of the incident and reflected waves, the phase of both voltage and current will advance pi radians (180-degrees) when the distance toward the generator decreases by a half wavelength."

In a lossless line with an open or a short, voltage and current distributions form half-sinewaves that go to zero at the minimums. The zero points for volts correspond to current maximums. This is a temporary shift of energy to the H-field. Each H and each E field of a wave carries half the energy in the wave. Twice the single-field energy temporarily contained in the other field is still an unchanged total energy.

The incident wave at any point has a non-varying power level The reflected wave also has a non-varying power levell.

At any point the incident and reflected waves are traveling in opposite directions. This shows in the Bird equation for power extracted from the source and delivered to the load. It`s the difference between incident and reflected powers.

This means the forward and reflected powers are in opposition everywhere, including at the source.

Therefore, an opposing reflected power is rejected by the source and re-circulates in-phase with the newly emerging power.

Best regards, Richard Harrison, KB5WZI

4768. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 01:39:09 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFD2EBD.8050800@ieee.org>
Source record: 129107

Richard Harrison wrote:
> CAM wrote:
>> "The difficulty that you and others seem to be having is in
>> understanding what happens between the waves---."

Richard, here's my entire statement to another Richard.
"The difficulty that you and others seem to be having is in
understanding what happens between two waves traveling in the
same direction in a transmission line."

I don't see that your posting addressed what happens when the two
waves are traveling in the same direction. You speak of forward and
reflected waves. The question is: what happens when two reflected
waves encounter each other?
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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4769. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 01:50:00 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <728qvuk4u1vccfjuimostshl1cjcelu5bp@4ax.com>
Source record: 129108

On Sun, 15 Dec 2002 18:57:44 -0500, "Fred Hambrecht Sr."
<w4jle@charter.net> wrote:

>I am a member of the unorganized militia as defined. I would suggest you
>look up the term. Next the Constitution says nothing about being a member to
>have arms. It does say that because we need a "well regulated" (Meaning guns
>that have been sighted in and ready for use) militia. It was necessary for
>all men to have the right to keep and bare arms.
>
>A few quotes are in order...
>

Quotes to the meaning of militia are a prime example (from the Oxford
English Dictionary which offers the historical meanings of the words
as they were used at the time cited):

Militia 1590.
1. A system of military discipline, organization,
and tactics; the arts of war - 1678.
B Military service; warfare - 1685.
2. The control and administration of the military and
naval forces of a country - 1647.
3. A military force; in later use a 'citizen army' as distinct
from a body of professional soldiers 1590.
4. A branch of the British military service, forming a part of
'the auxiliary forces' as distinct from the regular army. Also, a
similar force raised in British North America. - 1659
B. U.S. The whole body of men legally amenable to military
service 1777.

Army Middle English
1. An armed expedition by sea or land. - 1525
2. generally An armed force (by sea or land) - 1460
3. specifically A. A naval force; an armada, a fleet - 1786
B. A land force; a body of men armed for war and organized in
divisions, and regiments under officers and a Commander in Chief
or General. - 1557

If there is one compelling and over riding difference between the two,
it is not in the nature of arms, but rather in the nature of
composition, assembly and purpose of men under arms.

Historically, Armies were rarely composed of farmers, merchants,
craftsmen, or other townsmen. Frequently, they were professional men
at arms, fighting not for a government, but for themselves on the
terms of their contract under a noble or other titled person who had

the means to pay them the cost of that contract. One obvious correlation is found in our history and our having fought the Hessians, a Germanic region that supplied such contract warriors to Britain for the purpose of overthrowing the rebellion. In fact "Armies" at that time often meant a foreign troop assembled under a leader not of their nation. National Armies is a recent invention, particularly of Napoleon I. In today's political climate, that could be likened to the U.N.

By the definitions above, the militia was well-regulated in the sense of being available to the government's direction to mount a defense against a foreign invasion AKA Armies (such as we perceived the British to be after 1776) there was no other purpose as we had no regular or standing Army of our own. The militia was a voluntary service, unpaid, and trained through the device of meeting regularly for exactly that. The United States Army, for the period and many years after the dates of your early quoted material, consisted of very few men who served with pay or were provided arms, uniforms, tents, or supplies (the militia was expected to take care of its own needs so as to not encumber the government with demands for taxation or levies). Also during the period of your quoted correspondence, there were fewer than a dozen trained military officers and almost no soldiers and absolutely no sailors nor naval officers (in America, the Army is the Senior Service - in Britain it is the other way around - and the U.S. Navy was formed shortly after this same period of the early correspondence you quote AND after the U.S. Marines).

>
>"I ask, sir, what is the militia? It is the whole people, except for a few
>public officials."
>-- George Mason, 3 Elliot, Debates at 425-426.
>"A militia, when properly formed, are in fact the people themselves ... and
>include all men capable of bearing arms."
>--Richard Henry Lee, Senator, First Congress, Additional Letters from the
>Federal Farmer(1788)
>
>"Whenever governments mean to invade the rights and liberties of the people,
>they always attempt to destroy the militia, in order to raise an army upon
>their ruins."
>--Rep. Elbridge Gerry of Massachusetts, spoken during floor debate over the
>Second Amendment, I Annals of Congress at 750, August 17, 1789.
>
>"The militia, when properly formed, are in fact the people themselves.
>...(T)he Constitution ought to secure a genuine (militia) and guard against
>a select militia, by providing that the militia shall always be kept well
>organized, armed, and disciplined, and include...all men capable of bearing
>arms..."
>--Richard Henry Lee, writing in "Letters from the Federal Farmer to the
>Republic," (1788) p.169.
>
>To suppose arms in the hands of citizens, to be used at individual

>discretion, except in private self-defense, or by partial orders of towns,
>countries or districts of a state, is to demolish every constitution, and
>lay the laws prostrate, so that liberty can be enjoyed by no man; it is a
>dissolution of the government. The fundamental law of the militia is, that
>it be created, directed and commanded by the laws, and ever for the support
>of the laws.
>---John Adams, A Defense of the Constitutions of the United States 475
>(1787-1788)
>
>"Who are the militia? Are they not ourselves? Is it feared, then, that we
>shall turn our arms each man against his own bosom? Congress shall have no
>power to disarm the militia. Their swords and every other terrible implement
>of the soldier, are the birth-right of an American ....The unlimited power
>of the sword is not in the hands of either the federal or the state
>governments, but where I trust in God it will ever remain, in the hands of
>the People."
>--Tench Coxe, Pennsylvania Gazette, Feb. 20, 1788.
>
>"We will not be driven by fear into an age of unreason if we ... remember
>that we are not descended from fearful men, not from men who feared to
>write, to speak, to associate and to defend causes which were, for the
>moment unpopular."
>--E.R. Murrow
>
>"The militia is the dread of tyrants and the guard of freemen."
>--Gov. R. Lucas, former Major General of the Ohio Militia, 1832
>
>"The United States should get rid of its militias."
>-- Stalin, 1933 (btw, Stalin killed 20,000,000 of his own citizens!)
>
>"As the greatest danger to liberty is from large standing armies, it is best
>to prevent them by an effectual provision for a good militia."
>--James Madison, notes of debates in the 1787 Federal Convention
>
>"The signification attributed to the term, Militia, appear from the debates
>in the Convention, the history and legislation of Colonies and States, and
>the writings of approved commentators. These show plainly enough that the
>Militia comprised all males physically capable of acting in concert for the
>common defense... And further, that ordinarily when called for service these
>men were expected to appear bearing arms supplied by themselves and of a
>kind in common use at the time."
>--US Supreme Court, US v Miller 1939
>
>"In the beginning of change, the patriot is a scarce man; brave, hated and
>scorned. When his cause succeeds, however, the timid join him, for then it
>costs nothing to be a patriot"
>--Twain
>

Hi Fred,

Thanx for your conspicuous research and honest reporting.

In recent headlines:
"Budget delay may hold up work on vets' benefit claims"

"Half of Americans don't want their kids to be soldiers..."
quoted from that source:
"The most privileged and educated in American society now don't
regard military service as something honorable or useful."

Having performed my service, as did my father, my mother, my
grandparents and generations before; such an attitude cultured by ALL
administrations combined of the past 50 years is abhorrent.

73's
Richard Clark, KB7QHC, ET1

4770. for sale or trade

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 02:19:01 UTC
From: DAVE & SHANNA CRASE <crase1@alltel.net>
Message-ID: <pKaL9.1152$mx.471915@news.alltel.net>
Source record: 129109

radio shack pro 24 scanner 16 channel with 800mhz also covers your standard
vhf and uhf
make offer
make offer or will trade for 2 meter or 6 meter ham radio

4771. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 02:38:02 UTC
From: richardharrison@webtv.net
Message-ID: <11277-3DFD3C8A-192@storefull-2313.public.lawson.webtv.net>
Source record: 129110

I wrote:
"This means the forward and reflected powers are in opposition
everywhere, including at the source."

Think of a reflected power lowering the load impedance seen by the
transmitter.

If the transmitter had been matched to Zo, lowering the load it sees
reduces the power output. This lowers the reflected power too.

Raising the impedance spoils a match too.

If you have two windings on a transformer phased as you would for
parallel connection, and connect them, they don`t exhibit much current
exchange if they are well balanced.

Place a resistor between one of the terminals on each winding
representing the same polarity. Again the current flow will be from the
winding with the higher voltage through the winding with the lower
voltage. The voltage drop across the resistor comes from the difference
in voltage between the two source coils. The current flows from the
higher voltage coil into the lower voltage coil.

You have a transmitter output which is always equal or more potent than
the reflection.
If reflection and the length of line makes the incident and reflected
waves phase-aiding at the transmitter output, seems we could fix that
with a 1/4-wave extension to our coax.

In any case, the reflection is not the source of power. The transmitter
is the source of power.

Best regards, Richard Harrison, KB5WZI

4772. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 03:11:08 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFD444C.3020300@ieee.org>
Source record: 129111

Richard Harrison wrote:
> You have a transmitter output which is always equal or more potent than
> the reflection.

If the reflection voltage is 90 degrees out of phase with the transmitter
voltage, the reflection voltage will be maximum when the transmitter
voltage is zero. What happens at that point?
--
cheers, CAM http://www.qsl.net/w5dxp

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4773. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 03:11:47 UTC
From: richardharrison@webtv.net
Message-ID: <11277-3DFD4473-198@storefull-2313.public.lawson.webtv.net>
Source record: 129112

CAM wrote:
"I don`t see that your posting adressed what happens when the two waves are traveling in the "same direction" in a transmission line."

I remember from a lecture over half a century ago that said:"They merge."

Makes no difference because I think there is no way you could separate them for separate measurement. Two same frequency, same direction, same path waves are indistinguishable when both have current in the same direction.

Best regards, Richard Harrison, KB5WZI

4774. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 04:18:07 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFD53FF.6060306@ieee.org>
Source record: 129113

Richard Harrison wrote:
> CAM wrote:
> "I don`t see that your posting adressed what happens when the two waves
> are traveling in the "same direction" in a transmission line."
>
> I remember from a lecture over half a century ago that said:"They
> merge."
>
> Makes no difference because I think there is no way you could separate
> them for separate measurement. Two same frequency, same direction, same
> path waves are indistinguishable when both have current in the same
> direction.

Of course, they are indistinguishable after they merge. But they not only merge. Depending on their phase, they are likely to interfere. And if the two waves interfere constructively, there has to be an equal magnitude destructive interference. If they interfere destructively, there has to be an equal magnitude constructive interference. I remember spending a month on this subject at Texas A&M in the late 50's. Is this something that has disappeared from the EE curriculum in the past 45 years?

Let's take an easy to understand example involving a forward wave and a reflected wave. Those two waves interfere all up and down the transmission line. That's what causes standing waves. If the two voltages interfere constructively, the two currents must interfere destructively in order to maintain the energy balance. If the two voltages interfere destructively, the two currents must interfere constructively. In other words, if the total voltage increases, the total current decreases, and vice versa so that V*I*cos(phase_angle) remains constant.

However, the same rules do not apply to coherent waves traveling in the *same* direction. Something different from the above must happen to maintain the energy balance in that case.
--
cheers, CAM http://www.qsl.net/w5dxp

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4775. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 04:38:49 UTC
From: richardharrison@webtv.net
Message-ID: <29936-3DFD58D9-54@storefull-2318.public.lawson.webtv.net>
Source record: 129114

CAM wrote:
"If the reflection voltage is 90 degrees out of phase with the
transmitter---?"

The obvious answer is the magnitude is given by the sq.rt. of the sum of the squares of the voltages. The angle between the resultant and the abscissa is arc tan ordinate over the ascissa.

Best regards, Richard Harrison, KB5WZI

4776. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 04:48:33 UTC
From: tdonaly@aol.com
Message-ID: <20021215234833.06623.00000111@mb-cj.aol.com>
Source record: 129115

Fred wrote,
>
>I am a member of the unorganized militia as defined. I would suggest you
>look up the term. Next the Constitution says nothing about being a member to
>have arms. It does say that because we need a "well regulated" (Meaning guns
>that have been sighted in and ready for use) militia. It was necessary for
>all men to have the right to keep and bare arms.
>
>A few quotes are in order...
>
(Some very good quotes deleted.)

Most people in America would be very much surprised to know that they're members of a militia. You should send those quotes to the Ninth Circuit Court of Appeals. They'll probably send you back an equal number justifying slavery from the same period. By the way, didn't Richard Henry Lee oppose the Constitution because it might destroy states rights? And didn't Elbridge Gerry originally refuse to sign the Constitution?
I suspect your interpretation is probably right concerning the Patrick Henry type's interpretation of the Second Amendment, and, if the Supreme Court ever gets enough courage to address the matter, they'll probably agree. No matter how they rule, however, there will be a lot of very angry people in America.
73,
Tom Donaly

4777. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 04:56:38 UTC
From: tdonaly@aol.com
Message-ID: <20021215235638.06623.00000112@mb-cj.aol.com>
Source record: 129116

Richard Clark wrote,
>
>Hi Fred,
>
>Thanx for your conspicuous research and honest reporting.
>
>In recent headlines:
> "Budget delay may hold up work on vets' benefit claims"
>
> "Half of Americans don't want their kids to be soldiers..."
> quoted from that source:
> "The most privileged and educated in American society now don't
> regard military service as something honorable or useful."
>
>Having performed my service, as did my father, my mother, my
>grandparents and generations before; such an attitude cultured by ALL
>administrations combined of the past 50 years is abhorrent.
>
>73's
>Richard Clark, KB7QHC, ET1
>

Hi, Richard,
you might remember that, during the Civil War, the well-off
could either provide a substitute or pay $300.00 to get out of the draft.
America has a long, rich history of the double standard.
73,
Tom Donaly, KA6RUH

4778. What is the Best Mini-Beam for 10,15,20 and maybe 6 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 04:57:31 UTC
From: candoandys@aol.com
Message-ID: <20021215235731.06300.00000124@mb-fp.aol.com>
Source record: 129117

Email Andy, K6RY, Fresno, CA

4779. Re: Separation between multiple 2M J-Poles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 07:14:04 UTC
From: filbert009@charter.net
Message-ID: <3dfd7d19.12198941@news.charter.net>
Source record: 129118

On 17 Nov 2002 16:01:31 -0800, nm5k@wt.net (Mark Keith) wrote:

>
>Want real performance? Get a small 3 or 4 el yagi. It'll blow the
>verticals out of the water usually, and needs only one support. It
>does require a rotor though if you want to turn it or go out an
>manually turn the mast. A vertical should be fine for the packet
>though.. MK
...

who still uses packet?

4780. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 08:40:36 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <uvr4bqdgio5s7d@corp.supernews.com>
Source record: 129019

News flash, film at eleven...

We beat the bloody British, thus the reason for the Constitution. Why are you using a vanquished foes definition?

Read the federalist papers and forget the Oxford dictionary. You folks already ignore it for the definition of an assault weapon.

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Richard Clark" <kb7qhc@attbi.com> wrote in message news:728qvuk4u1vccfjuimostshl1cjcelu5bp@4ax.com...
> On Sun, 15 Dec 2002 18:57:44 -0500, "Fred Hambrecht Sr."
> <w4jle@charter.net> wrote:
>
> >I am a member of the unorganized militia as defined. I would suggest you
> >look up the term. Next the Constitution says nothing about being a member to
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> and tactics; the arts of war - 1678.
> B Military service; warfare - 1685.
> 2. The control and administration of the military and
> naval forces of a country - 1647.
> 3. A military force; in later use a 'citizen army' as distinct
> from a body of professional soldiers 1590.
> 4. A branch of the British military service, forming a part of

> 'the auxiliary forces' as distinct from the regular army. Also, a
> similar force raised in British North America. - 1659
> B. U.S. The whole body of men legally amenable to military
> service 1777.
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> Army Middle English
> 1. An armed expedition by sea or land. - 1525
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> 3. specifically A. A naval force; an armada, a fleet - 1786
> B. A land force; a body of men armed for war and organized in
> divisions, and regiments under officers and a Commander in Chief
> or General. - 1557
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> If there is one compelling and over riding difference between the two,
> it is not in the nature of arms, but rather in the nature of
> composition, assembly and purpose of men under arms.
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> Historically, Armies were rarely composed of farmers, merchants,
> craftsmen, or other townsmen. Frequently, they were professional men
> at arms, fighting not for a government, but for themselves on the
> terms of their contract under a noble or other titled person who had
> the means to pay them the cost of that contract. One obvious
> correlation is found in our history and our having fought the
> Hessians, a Germanic region that supplied such contract warriors to
> Britain for the purpose of overthrowing the rebellion. In fact
> "Armies" at that time often meant a foreign troop assembled under a
> leader not of their nation. National Armies is a recent invention,
> particularly of Napoleon I. In today's political climate, that could
> be likened to the U.N.
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> of being available to the government's direction to mount a defense
> against a foreign invasion AKA Armies (such as we perceived the
> British to be after 1776) there was no other purpose as we had no
> regular or standing Army of our own. The militia was a voluntary
> service, unpaid, and trained through the device of meeting regularly
> for exactly that. The United States Army, for the period and many
> years after the dates of your early quoted material, consisted of very
> few men who served with pay or were provided arms, uniforms, tents, or
> supplies (the militia was expected to take care of its own needs so as
> to not encumber the government with demands for taxation or levies).
> Also during the period of your quoted correspondence, there were fewer
> than a dozen trained military officers and almost no soldiers and
> absolutely no sailors nor naval officers (in America, the Army is the
> Senior Service - in Britain it is the other way around - and the U.S.
> Navy was formed shortly after this same period of the early
> correspondence you quote AND after the U.S. Marines).
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> >include all men capable of bearing arms."
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> >To suppose arms in the hands of citizens, to be used at individual
> >discretion, except in private self-defense, or by partial orders of
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> >countries or districts of a state, is to demolish every constitution, and
> >lay the laws prostrate, so that liberty can be enjoyed by no man; it is a
> >dissolution of the government. The fundamental law of the militia is,
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> >it be created, directed and commanded by the laws, and ever for the
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> >governments, but where I trust in God it will ever remain, in the hands

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> >"We will not be driven by fear into an age of unreason if we ... remember
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> >write, to speak, to associate and to defend causes which were, for the
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> >the writings of approved commentators. These show plainly enough that the
> >Militia comprised all males physically capable of acting in concert for
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> Hi Fred,
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> Thanx for your conspicuous research and honest reporting.
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> In recent headlines:
> "Budget delay may hold up work on vets' benefit claims"
>
> "Half of Americans don't want their kids to be soldiers..."

> quoted from that source:
> "The most privileged and educated in American society now don't
> regard military service as something honorable or useful."
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> Having performed my service, as did my father, my mother, my
> grandparents and generations before; such an attitude cultured by ALL
> administrations combined of the past 50 years is abhorrent.
>
> 73's
> Richard Clark, KB7QHC, ET1

4781. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 09:50:01 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <uvr8dv91m3prf9@corp.supernews.com>
Source record: 129020

Richard I reacted to another poster, and unfortunately replied to your message. I am sorry that it appears I found your response distasteful to me.

Fred W4JLE

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

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> > Richard Clark, KB7QHC, ET1
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4782. Re: Antenna / Back of Building ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 12:17:21 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <F_udnYvnF9ohT2CgXTWcpQ@ctc.net>
Source record: 129023

"Chuck/KE4ETH" <chuck_hawks@hotmailNOSPAMORAMA.com> wrote in message
news:cE4L9.12979$8d6.1896@news.bellsouth.net...
> FWIW. I've heard that it has gain on receive. Personally not sure. But,
have
> been using a 300-ohm twinlead J-Pole, at 30 feet high, for almost 10
years
> in a PCV pipe, with no complaints or problems.
>
> --
> 73,
> Chuck
> KE4ETH
> USA-NA
> Remove the obvious from Email.
>
>
>
> "'Doc" <w5lz@cwis.net> wrote in message news:3DFC20BC.B977D4FC@cwis.net...
> >
> >
> > greg,
> > Where does the gain come from?
> > 'Doc
>
Sure it has gain. About 100 db over a dummy load, 10 db over the rubber
duckey that comes with a HT and 0 db over a dipole.
You just have to know the refferance point.
Also an antenna will normally have the same gain on transmitt as it does on
receive.

4783. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 12:33:48 UTC
From: k1bqt@aol.com
Message-ID: <20021216073348.29747.00000069@mb-cv.aol.com>
Source record: 129021

>...you might remember that, during the Civil War, the well-off could either provide a substitute or pay $300.00 to get out of the draft.<

That's news? Where were you during Viet Nam? No one denies our democratic republic is a big fat messy lumbering animal. However, if you really hate the fleas and dishevelment that much, there are plenty of places on earth where the populace have no guns and order is strictly maintained (flights daily from an airport near you).

Better yet, rather than getting those whitey-tighties all in knot, why not lease a new Beamer, jump on the highway, pick up your cell, and call someone you love? Get with the program.

Rick K1BQT

4784. Re: Separation between multiple 2M J-Poles?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 12:48:49 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <PrpL9.26401$6z5.13565@news.bellsouth.net>
Source record: 129039

Some of us in West Tennessee do. We use it as a messaging system (beats the heck out of no one on the 2-meter repeater at thet time), for weather reporting and bulletins. Besides it is still a lot of fun.

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

<filbert009@charter.net> wrote in message
news:3dfd7d19.12198941@news.charter.net...
> On 17 Nov 2002 16:01:31 -0800, nm5k@wt.net (Mark Keith) wrote:
>
>
> > >Want real performance? Get a small 3 or 4 el yagi. It'll blow the
> > >verticals out of the water usually, and needs only one support. It
> > >does require a rotor though if you want to turn it or go out an
> > >manually turn the mast. A vertical should be fine for the packet
> > >though.. MK
> > ...
>
> who still uses packet?
>

4785. Re: What is the Best Mini-Beam for 10,15,20 and maybe 6 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 12:56:26 UTC
From: Chris Bronson <lordmastema@hotmail.com>
Message-ID: <3dfdce0f$1_2@news.bluewin.ch>
Source record: 129022

Andy,

Have a look at the Fritzel MFB 23 for its size.
http://www.swschwedt.de/kunden/dm2ble/mfb23s.jpg
Regards

Chris

4786. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 13:26:14 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFDD476.50606@ieee.org>
Source record: 129024

Richard Harrison wrote:
> CAM wrote:
> "If the reflection voltage is 90 degrees out of phase with the
> transmitter---?"
>
> The obvious answer is the magnitude is given by the sq.rt. of the sum of
> the squares of the voltages. The angle between the resultant and the
> abscissa is arc tan ordinate over the ascissa.

The point is that voltages 90 degrees out of phase cannot interfere
with each other, i.e. the reflected voltage will not even "know" the
forward voltage exists. So does that reflected voltage flow
through the transmitter? Does the reflected current flow through
the transmitter?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4787. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 13:27:04 UTC
From: richardharrison@webtv.net
Message-ID: <29779-3DFDD4A8-548@storefull-2311.public.lawson.webtv.net>
Source record: 129026

CAM wrote
"And f the two waves interfere constructively, there has to be an equal magnitude destructive interference."

Agreed that energy must balance so that after interaction its summation is unchanged or accounted for by another addition or subtraction of energy from the system.

An analogy is the spatial redistribution done by a directional antenna. Same power, but some places have more because some other places have less.

On a transmission line, energy interference leaves the waves almost unscathed as they pass through each other. The forward wave has different characteristics from the reflected wave, so they don`t merge.

Where SWR creates a maximum voltage, SWR also creates a minimum current. If the forward and reflected powers are constant over the length of a transmission line, the sumation of the forward and reflected powers are constant also.

Two or more waves of the same frequency coming from the same source are synchronized. On the same path, they have a fixed phase relationship and magnitude ratio. They decay at the same rate. If they don`t decay, the power of the combination is the same everywhere along the path. There is no SWR where no reflected wave is present and you only have a forward wave , no matter how many parts were used to build the wave.

Best regards, Richard Harrison, KB5WZI

4788. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 13:28:10 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFDD4EA.8020804@ieee.org>
Source record: 129025

Tdonaly wrote:
> No matter how they rule, however, there will be a lot
> of very angry people in America.

Seems to me it would be best to anger the people without guns. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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4789. Re: Antenna / Back of Building ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 14:08:26 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <3939PV1ZV6oYycRkcpaMurOvPKHg@4ax.com>
Source record: 129027

"Ralph Mowery" <rmowery@ctc.net> wrote:

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>> >
>> >
>> > greg,
>> > Where does the gain come from?
>> > 'Doc
>>
>Sure it has gain. About 100 db over a dummy load, 10 db over the rubber
>duckey that comes with a HT and 0 db over a dipole.

Why do people go to all the trouble of a J-pole, when they could just hang a
little dipole vertically? (I'm thinking of building one or the other; the dipole
would certainly be easier.)

Bob
k5qwg

>You just have to know the refferance point.
>Also an antenna will normally have the same gain on transmitt as it does on
>receive.
>

4790. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 14:52:26 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFDE8AA.30908@ieee.org>
Source record: 129028

Richard Harrison wrote:
> CAM wrote
> "And f the two waves interfere constructively, there has to be an equal
> magnitude destructive interference."
>
> Agreed that energy must balance so that after interaction its summation
> is unchanged or accounted for by another addition or subtraction of
> energy from the system.
>
> An analogy is the spatial redistribution done by a directional antenna.
> Same power, but some places have more because some other places have
> less.
>
> On a transmission line, energy interference leaves the waves almost
> unscathed as they pass through each other. The forward wave has
> different characteristics from the reflected wave, so they don`t merge.
>
> Where SWR creates a maximum voltage, SWR also creates a minimum current.

Exactly true as explained in a lot of textbooks. However, for waves
that interfere when traveling in the same direction in a transmission
line, my meager library says virtually nothing. But the same principles
apply. If there's destructive interference, there must be a matching
constructive interference and vice versa.

When forward and reflected waves interfere, if there is constructive
interference in the voltages, that same amount of destructive interference
occurs in the currents.

When waves are traveling in the same forward direction, since the component
wave voltage and current are in phase, if the voltages interfere constructively
then so do the currents. If the voltages interfere destructively then so do
the currents. So we get either constructive or destructive interference from
those two waves. Whichever it is, at an impedance discontinuity, constructive
interference on one side of the discontinuity results in destructive interference
on the other side. Dr. Best and others seem not to understand this law of physics.
--
cheers, CAM http://www.qsl.net/w5dxp

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4791. Re: Antenna / Back of Building ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 14:54:20 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFDE91C.8040003@ieee.org>
Source record: 129029

Bob Miller wrote:
> Why do people go to all the trouble of a J-pole, when they could just hang a
> little dipole vertically?

The J-pole is easier to feed and to mount at the very top of a metal pole.
--
cheers, CAM http://www.qsl.net/w5dxp

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4792. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 15:06:36 UTC
From: richardharrison@webtv.net
Message-ID: <8129-3DFDEBFC-465@storefull-2312.public.lawson.webtv.net>
Source record: 129030

CAM wrote:
"The point is that voltges 90 degrees out of phase cannot interfere with each other."

We have in the past had 2-phase power systems. Three or more wires were needed for distribution. Coils are perpendicular. Volts line to line are 1.414 times the coil voltage (line to neutral).

2-phase has gone away because it often needs more wires and is harder to balance than 3-phase power.

Two equal voltage vectors at right angles have (sq. rt. 2) times the motivating force on current that either vector alone would have. Sq. rt. 2 is the same as 1.414.

Best regards, Richard Harrison, KB5WZI

4793. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 15:48:52 UTC
From: richardharrison@webtv.net
Message-ID: <8129-3DFDF5E4-476@storefull-2312.public.lawson.webtv.net>
Source record: 129032

CAM wrote:
"Does the reflected current flow through the transmitter?"

The out-of-phase reflected voltage and current lead me to believe it doesn`t happen. I have been comfortable with assertions that reflected power is re-reflected at the transmitter, made long before I ever heard of a Bird wattmeter.

Bird says:
Transmitter power = Forward power - Reflected power.

If reflected power bounces on return to the transmitter, reflected current doesn`t flow through the transmitter.

If reflected power flows back into the transmitter, the current is still out-of-phase with the reflected voltage. How can that produce much dissipation? It takes a new reflection to correct the phase of the reflected power. If the reverse current reduces the output of the transmitter, the transmitter just has to crank out more to restore the desired output.

The only interest of this discussion must be academic, as we know the Bird formula works.

Best regards, Richard Harrison, KB5WZI

4794. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 16:07:01 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFDFA25.8030500@ieee.org>
Source record: 129031

Richard Harrison wrote:
> CAM wrote:
> "The point is that voltges 90 degrees out of phase cannot interfere with
> each other."
>
> Two equal voltage vectors at right angles have (sq. rt. 2) times the
> motivating force on current that either vector alone would have. Sq. rt.
> 2 is the same as 1.414.

I'm sorry, I misspoke above. I should have said that voltages 90 degrees
out of phase cannot affect each other. Obviously, they can interfere, i.e.
superpose.
--
cheers, CAM http://www.qsl.net/w5dxp

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4795. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 17:34:07 UTC
From: richardharrison@webtv.net
Message-ID: <29936-3DFE0E8F-60@storefull-2318.public.lawson.webtv.net>
Source record: 129033

I had an e-mail which said re-entry of reflected power into a transmitter is not academic.

The transmitter is the source of the reflected power, too. Sending it out for a spell doesn`t greatly multiply its potentency.

What arcs and burns a transmitter is the changed impedance load on the transmitter caused by the reflection.

If the transmitter is unloaded, it may arc due to the lack of internal voltage drops.

If the transmitter operates into a short-circuit, it may draw too much current and burn.

Best regards, Richard Harrison, KB5WZI

4796. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 17:45:37 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <3v1svu8rj4076iapg8t02uhs22bppngddr@4ax.com>
Source record: 129034

On 16 Dec 2002 12:33:48 GMT, k1bqt@aol.com (Rick Littlefield) wrote:

>>...you might remember that, during the Civil War, the well-off could either
>provide a substitute or pay $300.00 to get out of the draft.<
>
>That's news? Where were you during Viet Nam?

Hi Rick,

Did you submit your life and freedoms to the Universal Code Military
of Justice? Officer or enlisted? Drafted, volunteer, or simply a
good lottery number?

How many patriots here "deferred" their service? Do any of you plan
to pay your obligation anytime soon? For such patriots, I would offer
that the meaning of "deferred" does not mean a free ride while the
suckers took it in the chops by charley.

So as to not confuse some with the history of language, Webster's
Dictionary reveals "deferred" to mean:
1. To put off until a future time, POSTPONE
2. To postpone the induction of one eligible for the military
draft.
To delay, procrastinate.

We have a local cartoonist for the OP-ED page who is asking the
question: "Would you let your child join the war against Iraq? Would
you join yourself?" The guy is one of those effete Right Whiners who
came to this ploy for selling newspaper while talking to a buddy
mixing Martinis at a cocktail party. What a whore.

To answer Tom, no, I am not surprised by the depth of insincerity by
those who walked away from obligation and who now wrap themselves in a
flag I volunteered to serve. They found the paths to power and money
while I served, and no doubt they are leveraging a way to put me
against the wall as a traitor to America if I in some way jeopardize
their income or their fantasies of having single handedly smashed the
evil empire from their DC office. The beltway is chock full of these
warm weather warriors and they have let us know that Veterans are not
a group they hold dear.

I fondly recall one correspondent here putting it so pithily "You
lost, get over it." ...I don't think so.

73's
Richard Clark, KB7QHC, ET1

4797. 2 meter quad problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 17:46:11 UTC
From: Bill Grimwood <bill@grimwood.net>
Message-ID: <uvs85cnt4fs227@corp.supernews.com>
Source record: 129038

Last weekend I put up a 2 meter quad and it tuned 1:2 which is a little high but ok. This weekend it teads 1:10!! what has happened. I waterproffed the coax so I do not believe that could be the problem. It did rain three or four days last week.

thanks

Bill Grimwood

K1WEG

4798. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 18:02:02 UTC
From: "Dan, danl, danny boy, Redbeard, actually Greybeard now" <danl@execpc.com>
Message-ID: <3dfe14f6$0$1428$272ea4a1@news.execpc.com>
Source record: 129036

On Sun, 15 Dec 2002 16:34:09 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> sent into the ether:

>I don't use them on coax, only on "450" ohm ladder-line. The spacing
>on the ladder-line is about 3/4" and the spacing between the knife
>switch conductors is about 5/8". I am not aware of more than a slight
>impedance bump using ladder-line.
Hi Cam,
I have a real nice knife switch. It is spaced about 4" apart for the knives and is made from 1" x 1/8" copper. It is a dual set mounted on a 3/4" thick piece of what appears to be Bakelite. I have used it for various wire antennas and was wondering, does the width spacing affect the swr when used with a narrower ladder line?
BTW, look for these types of switches at demolition companies.
Thanks

4799. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 18:02:16 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <rg4svuco4d9qtstcltt9l2kdh2j5jsulog@4ax.com>
Source record: 129035

On Mon, 16 Dec 2002 04:50:01 -0500, "Fred Hambrecht Sr."
<w4jle@charter.net> wrote:

>Richard I reacted to another poster, and unfortunately replied to your
>message. I am sorry that it appears I found your response distasteful to me.
>
>Fred W4JLE
>

Hi Fred,

It is the nature of the topic, certainly; and again, I have the
credentials (both academic and military) to respond with first hand
knowledge.

So as to remove any taint of being British in the nature of word games
I will offer a certified American source for definition from Webster's
(the first "American Dictionary of the English Language"):

Militia,
1. A military force that is not part of a regular army and is
subject to call for service in an emergency.
2. The whole body of physically fit male civilians eligible by
law for military service.

I would note there is not a jot of difference between English and
American meanings, and it is more evident that the early
correspondents were still on the same page with regard to meaning
either way. As for the historical context, this is something I
learned from attending Army lectures (open to army brats such as
myself) while I was pursuing a goal of finding admission to West
Point.

73's
Richard Clark, KB7QHC, ET1

4800. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 18:39:42 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <117svug2sqke3vhq40sl5rou6gag3sltvs@4ax.com>
Source record: 129037

On Mon, 16 Dec 2002 11:34:07 -0600 (CST), richardharrison@webtv.net (Richard Harrison) wrote:

>I had an e-mail which said re-entry of reflected power into a
>transmitter is not academic.
>
>The transmitter is the source of the reflected power, too. Sending it
>out for a spell doesn`t greatly multiply its potentency.
>
>What arcs and burns a transmitter is the changed impedance load on the
>transmitter caused by the reflection.
>
>If the transmitter is unloaded, it may arc due to the lack of internal
>voltage drops.
>
>If the transmitter operates into a short-circuit, it may draw too much
>current and burn.
>
>Best regards, Richard Harrison, KB5WZI

Hi Richard,

Kudos to that anonymous e-mailer. That our "sources" may not conform to Thevenin (or Norton for that matter) is of little consequence to a damaged wallet when some are swayed by crafted arguments proving there is no power in a reflected wave (except, uh, when we use a directional coupler, or, uh, circulator, or, uh....).

I can anticipate the argument of lumped equivalents of the line causing the same grief. I have no argument to their added Z complete with Q multiplying V's and I's, until we reflect (no pun) that nearly every argument offered is posed in terms of simple Resistive ratios. It is at this point that the absurd (the internal resistance has nothing to offer) has kidnapped discussion.

73's
Richard Clark, KB7QHC

4801. Would a Hexbeam be better than this??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 19:01:10 UTC
From: bmg <ll@jj.com>
Message-ID: <3DFE22F6.F10A99D4@jj.com>
Source record: 129041

http://www.swschwedt.de/kunden/dm2ble/mfb23s.jpg

4802. Re: Antenna / Back of Building ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 19:19:47 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <G0tL9.21736$8d6.3588@news.bellsouth.net>
Source record: 129066

The complete antenna, can be grounded at dc potential. Lightning protection.

My twinlead J-Pole was just easier to mount an feed inside a PVC pipe and mounted above the TV Antenna.

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message news:3DFDE91C.8040003@ieee.org...
> Bob Miller wrote:
> > Why do people go to all the trouble of a J-pole, when they could just hang a
> > little dipole vertically?
>
> The J-pole is easier to feed and to mount at the very top of a metal pole.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
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4803. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 19:21:19 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <T0tL9.21737$8d6.2036@news.bellsouth.net>
Source record: 129067

"Dan, danl, danny boy, Redbeard, actually Greybeard now" <danl@execpc.com>
wrote in message news:3dfe14f6$0$1428$272ea4a1@news.execpc.com...
> On Sun, 15 Dec 2002 16:34:09 -0600, OC_CAM's Razor
> <Cecil.A.Moore@ieee.org> sent into the ether:
>
> >I don't use them on coax, only on "450" ohm ladder-line. The spacing
> >on the ladder-line is about 3/4" and the spacing between the knife
> >switch conductors is about 5/8". I am not aware of more than a slight
> >impedance bump using ladder-line.
> Hi Cam,
> I have a real nice knife switch. It is spaced about 4" apart for the
> knives and is made from 1" x 1/8" copper. It is a dual set mounted on
> a 3/4" thick piece of what appears to be Bakelite. I have used it for
> various wire antennas and was wondering, does the width spacing affect
> the swr when used with a narrower ladder line?
> BTW, look for these types of switches at demolition companies.
> Thanks

Is that with or with out explosives?

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

4804. Diamond HV7A Tuning on 6m

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 19:23:59 UTC
From: Aidan Murphy <Aidan@ei5hw.net>
Message-ID: <atl97p$pi8$1@kermit.esat.net>
Source record: 129040

Hi,

I recently pirchased the new Diamond HV7A quadband mobile antenna (6m, 2m,70cm, 10m) I have it at appros 1.2:1 on all bands except 6m.

The lowest I can get the SWr down to hear is about 1.7:1 I am using an antenna analyser to do the measurments.

If anybody has come accross a similar issue and has managed to resolve seam, I woukd appreciate if you could drop me a line.

Many Thanks,

Aidan EI5HW.

4805. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 19:37:25 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFE2B75.30203@ieee.org>
Source record: 129042

Richard Harrison wrote:
> The only interest of this discussion must be academic, as we know the
> Bird formula works.

Yes, by definition of the steady-state net conditions. It is certainly
of academic interest to know what actually happens in reality. If a
transmitter re-reflects all the reflected power, then why do we need
an antenna tuner which does exactly the same thing? If the transmitter
re-reflects all the reflected power, why is it so "unhappy" when it
"sees" reflected power?

But this discussion has virtually nothing to do with what happens at
a lossless impedance discontinuity in a transmission line.
--
cheers, CAM http://www.qsl.net/w5dxp

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4806. What is the Difference Between the Butternut HF9V & HF9VX?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 20:00:26 UTC
From: Brian Igmac <b_igmac@yahoo.com>
Message-ID: <uhqL9.74327$jf7.4944430@news2.west.cox.net>
Source record: 129043

I have seen references to both model numbers... is there any real difference? What differences are there?

Thanks

4807. Re: 2 meter quad problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 20:49:13 UTC
From: Bill Grimwood <bill@grimwood.net>
Message-ID: <uvsim8bqic0k34@corp.supernews.com>
Source record: 129054

The spreaders are made of wood. Should they have been of pvc or something
else?

Bill

"Dale Parfitt" <parinc@verizon.net> wrote in message
news:3DFE40C1.E2555346@verizon.net...
>
>
> Bill Grimwood wrote:
>
> > Last weekend I put up a 2 meter quad and it tuned 1:2 which is a little
high
> > but ok. This weekend it teads 1:10!! what has happened. I
waterproffed
> > the coax so I do not believe that could be the problem. It did rain
three
> > or four days last week.
> >
> > thanks
> >
> > Bill Grimwood
> >
> > K1WEG
>
> What are the spreaders made from? If wood, the corners that have voltage
max are
> probably loading the antenna. But my guess is still the coax.
>
> Dale W4OP
>

4808. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 21:05:38 UTC
From: Peter <pierre.vachon@rogers.com>
Message-ID: <CerL9.6464$s_.5826@news02.bloor.is.net.cable.rogers.com>
Source record: 129045
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

An outdoor antenna would help for sure. Where do you live?

4809. Mast limit?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 21:16:42 UTC
From: Benson Wills <blackhole@doozy.us>
Message-ID: <blackhole-6B9B58.16164116122002@corp.supernews.com>
Source record: 129046

Are the Radio Shack 10' masts sturdy enough to put two on a chimney mount? The antenna(s) will be a stacked Par Electronics 6M loop which require a 12-15 foot separation.

--
E-mail replies: change 'blackhole' to 'usenet3'

4810. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 21:19:29 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dfe437d$0$86706$ba620e4c@news.skynet.be>
Source record: 129047
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Which frequencies ?

73 de ON5MJ -Jacques.

4811. Re: Diamond HV7A Tuning on 6m

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 21:21:46 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dfe43f2$0$86707$ba620e4c@news.skynet.be>
Source record: 129048

1.7:1 is quite nice. Where is the problem ?

--
on5mjREMOVE@skynet.be

4812. Re: 2 meter quad problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 21:22:25 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3DFE40C1.E2555346@verizon.net>
Source record: 129049

Bill Grimwood wrote:

> Last weekend I put up a 2 meter quad and it tuned 1:2 which is a little high
> but ok. This weekend it teads 1:10!! what has happened. I waterproffed
> the coax so I do not believe that could be the problem. It did rain three
> or four days last week.
>
> thanks
>
> Bill Grimwood
>
> K1WEG

What are the spreaders made from? If wood, the corners that have voltage max are probably loading the antenna. But my guess is still the coax.

Dale W4OP

4813. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 21:23:56 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <uvsh3hcoq04m31@corp.supernews.com>
Source record: 129050

I as well spent my time in the Navy advancing first to FTC and then Electronic WO. Went up for both ordnance as well as electronics and really wanted to be "Gunner', but became "Sparks' instead.

Most of the folks that sit back and take potshots at the President have never served a day themselves. I would be proud to serve under him, I could never had said the same of his predecessor

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:rg4svuco4d9qtstcltt9l2kdh2j5jsulog@4ax.com...
either way. As for the historical context, this is something I
> learned from attending Army lectures (open to army brats such as
> myself) while I was pursuing a goal of finding admission to West
> Point.
>
> 73's
> Richard Clark, KB7QHC, ET1

4814. Re: Would a Hexbeam be better than this??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 21:29:54 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <uvshejh9d71867@corp.supernews.com>
Source record: 129051

For what? The question can not be answered as asked.

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"bmg" <ll@jj.com> wrote in message news:3DFE22F6.F10A99D4@jj.com...
> http://www.swschwedt.de/kunden/dm2ble/mfb23s.jpg
>

4815. Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 21:35:17 UTC
From: Candy <candy200@mailandnews.com>
Message-ID: <3DFE4715.7A8ED713@mailandnews.com>
Source record: 129044
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

I live in an appartment, urban area (down town). My new YB-400 receives only strong stations (indoor) when I extend its built-in antenna, weaker stations are barely audible, and there is lot of noise, too. Reel antenna by Grundig which is included in the package, improves sensitivity a bit.

Someone told me an outdoor antenna may reduce noise(?) and improve sensitivity.

I am really radio illiterate, so all I can think off is a kind of small inverted-L antenna, 3.80m (12.46') long enamelled copper wire span on a top of a balcony ceiling which will be about 10 metres above a street.

Will this project help ? If so, should I use a bare copper wire or enamelled wire ? Do I need a tuner for the antenna to cover 11-90m bands ?

If this idea for reducing noise and improving sensitivity is useles, please suggest something that will work. A balcony is 390x30cm.

Are there any pre-built low cost outdoor stealth antennas which will help in my case ?

Thank you very much.

4816. Re: Mast limit?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 21:48:57 UTC
From: L Caracciolo <larryc@northwest.com>
Message-ID: <3DFE4A49.6D59C14C@northwest.com>
Source record: 129052

i've used one of them (10' plus a 5' section) for the cushcraft long yagi
+ rotator...but I also guyed the arrangement sturdily.

if you don;t guy, you run the risk of watching your investment teeter
over in a strong wind. klunk!

also, i wouldn;t recommend those RS chimney mounts. the ratchets are made
of inexpensive plated steel. they bend out of shape when you torque them
down. and you can never tighten down enuf!

========

Benson Wills wrote:

> Are the Radio Shack 10' masts sturdy enough to put two on a chimney
> mount? The antenna(s) will be a stacked Par Electronics 6M loop which
> require a 12-15 foot separation.
>
> --
> E-mail replies: change 'blackhole' to 'usenet3'

4817. Re: Mast limit?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 21:49:23 UTC
From: L Caracciolo <larryc@northwest.com>
Message-ID: <3DFE4A63.76C3BC18@northwest.com>
Source record: 129053

i've used one of them (10' plus a 5' section) for the cushcraft long yagi
+ rotator...but I also guyed the arrangement sturdily.

if you don;t guy, you run the risk of watching your investment teeter
over in a strong wind. klunk!

also, i wouldn;t recommend those RS chimney mounts. the ratchets are made
of inexpensive plated steel. they bend out of shape when you torque them
down. and you can never tighten down enuf!

========

Benson Wills wrote:

> Are the Radio Shack 10' masts sturdy enough to put two on a chimney
> mount? The antenna(s) will be a stacked Par Electronics 6M loop which
> require a 12-15 foot separation.
>
> --
> E-mail replies: change 'blackhole' to 'usenet3'

4818. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 22:03:34 UTC
From: jder8745@aol.com
Message-ID: <20021216170334.15049.00000041@mb-fs.aol.com>
Source record: 129057

"BTW, look for these types of switches at demolition companies.
Thanks"

And antique shops.

Jack, K9CUN

4819. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 22:08:16 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DFE4ED0.70AFC70F@cwis.net>
Source record: 129058
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Candy,
An out door antenna should help to some degree,
but don't expect miracles. Your antenna should be
as long as you can make it. and as high as you can
get it. How you do that is very non-critical, so
do the best that you can.
Good luck...
'Doc

4820. Re: Forward/Reflected Power

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 22:19:40 UTC
From: jder8745@aol.com
Message-ID: <20021216171940.15049.00000042@mb-fs.aol.com>
Source record: 129059

Suppose one is a 1999 Tsunami 3-door hatch back, and the other is an old 1981 Tsunami 2-door sedan.

Since both are oriental cars and not made in Amuricah, there would be complete annihilation. But since the ocean is made up of water, the two rice burners would obviously be tooling along the ocean floor where they could get better traction.

Rice will not burn under water! Therefore the Tsunamis would at best be coasting, thus the reflected impedance at the moment of impact would be the complex conjugate of the reciprocal of the hydraulic impedance of the reflected waves on the nonlinear meniscus.

Why do people not fully understand this concept?

Read my lips...The standing wave ratio would be 0.707-to-1 plus or minus 5%.

Jack, K9CUN.

4821. Reflected power...the TRUE story!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 22:28:13 UTC
From: jder8745@aol.com
Message-ID: <20021216172813.15049.00000043@mb-fs.aol.com>
Source record: 129060

QST:

Someone recently sed, "What would happen if two tsunamis going opposite directions met in the middle of the ocean?"
==========

That’s easy...

Suppose one is a 1999 Tsunami 3-door hatch back, and the other is an old 1981 Tsunami 2-door sedan.

Since both are oriental cars and not made in Murricah, there would normally be complete annihilation. But since the ocean is made up of water, the two rice burners would obviously be tooling along the ocean floor where they could get better traction.

Rice will not burn under water! Therefore the Tsunamis would at best be coasting, thus the reflected impedance at the moment of impact would be the complex conjugate of the reciprocal of the hydraulic characteristic impedance of the reflected waves on the meniscus.

Why do people not fully understand this concept?

Jack, K9CUN

4822. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 22:41:34 UTC
From: Candy <candy200@mailandnews.com>
Message-ID: <3DFE569E.AC76F9C0@mailandnews.com>
Source record: 129055
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

ON5MJ wrote:
>
> Which frequencies ?
>
> 73 de ON5MJ -Jacques.

25, 31, 41 and 49m bands are the most important to me, I'd like to improve reception on quite several frequencies in each band since I am interested in overseas stations. Is it possible ?

4823. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 22:43:00 UTC
From: Candy <candy200@mailandnews.com>
Message-ID: <3DFE56F4.C14DFFF4@mailandnews.com>
Source record: 129056
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Peter wrote:
>
> An outdoor antenna would help for sure. Where do you live?

Vancouver

4824. Re: Mast limit?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 22:50:18 UTC
From: Benson Wills <blackhole@doozy.us>
Message-ID: <blackhole-F34A6A.17501816122002@corp.supernews.com>
Source record: 129061

Oy, maybe I won't stack them then. I want to avoid using guy wires. I
wonder if the 10' and 5' together would be OK for my application?

In article <3DFE4A63.76C3BC18@northwest.com>,
L Caracciolo <larryc@northwest.com> wrote:

> i've used one of them (10' plus a 5' section) for the cushcraft long yagi
> + rotator...but I also guyed the arrangement sturdily.

--
E-mail replies: change 'blackhole' to 'usenet3'

4825. Re: Mast limit?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 22:53:43 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <O1j+PTqf6PviNd2d5Zevtuf2lWeb@4ax.com>
Source record: 129062

Benson Wills <blackhole@doozy.us> wrote:

>Are the Radio Shack 10' masts sturdy enough to put two on a chimney
>mount? The antenna(s) will be a stacked Par Electronics 6M loop which
>require a 12-15 foot separation.

It might be easier to just get their 19' telescoping, guyed mast, and use
something other than your chimney for the base. They also have a 36' size.

Bob
k5qwg

4826. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 23:00:16 UTC
From: k1bqt@aol.com
Message-ID: <20021216180016.13990.00000114@mb-cr.aol.com>
Source record: 129063

>Did you submit your life and freedoms to the Universal Code Military
of Justice?<

I enlisted in the USAF as a Medic in 1969. You do the math.

Rick K1BQT

4827. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 23:16:55 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <uvsnln6kjmno70@corp.supernews.com>
Source record: 129064

Well, Mr. Edwards, here the good and trained people may protect themselves from the bad people. To paraphrase one of your rulers, the means to do so do not scare the horses nor any person as they are not visible. They do give apprehension to the bad people. Here, it is still legal and proper to protect oneself, one's family, and the Constitution.
There is a world of difference between being a mere subject and being a citizen.
Mac N8TT
--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message news:atg9i9$80d$1@helle.btinternet.com...
> > The bad people, thereby, do not know who is, and who is not.
> >
> ====================
> And the good people do not know who is the bad people and who is not.
>
>

4828. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 23:22:52 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <8rnsvug6hv4886u9s08amalsh1fokqp4kn@4ax.com>
Source record: 129065

On 16 Dec 2002 23:00:16 GMT, k1bqt@aol.com (Rick Littlefield) wrote:

>>Did you submit your life and freedoms to the Universal Code Military
>of Justice?<
>
>I enlisted in the USAF as a Medic in 1969. You do the math.
>
>Rick K1BQT

Hi Boot

The math: USN 1968. Born into the service, Fitzsimmons US Army
Hospital 1949.

73's
Richard Clark, KB7QHC, ET1

4829. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 23:40:17 UTC
From: "Dan, danl, danny boy, Redbeard, actually Greybeard now" <danl@execpc.com>
Message-ID: <3dfe643d$0$1398$272ea4a1@news.execpc.com>
Source record: 129068

On 16 Dec 2002 22:03:34 GMT, jder8745@aol.com (JDer8745) sent into the ether:

>"BTW, look for these types of switches at demolition companies.
>Thanks"
>
>And antique shops.
>
>Jack, K9CUN
Man, I hate to think what they charge for them at antique shops :<{
You still see some at the better hamfests.

4830. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 23:41:31 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <uvsp3qoghbol2d@corp.supernews.com>
Source record: 128969

This has not been the experience in Michigan. Perhaps in States where beautiful people are able to receive a CPL without any demonstration of competency or training (including, recurring training) this could be a concern. As a group, the rate of crimes or infractions committed by CPL holders has been smaller than that of police officers. At least here, none of the handful of persons who have lost their CPL because of an infraction used a firearm in that infraction. (Forgetting to sign your car registration is such an infraction.)
Were you to experience the standard training course required, you would have a better understand of why Michigan CPL holders are unlikely to be in the news.
Some people are uncomfortable about the existence of CPLs. One source that I have found is the sincere belief that firearms are able to discharge by them selves. (I had a PhD mechanical engineer tell me this while simultaneously saying that it was irrational.) Another source comes from people who know, usually at a subconscious level, that they would use anything at hand to hurt others when they become angry or frustrated. It is understandable why they would expect others to behave in the same manner.
73 Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net
Office: JCM@McLMcL.Com
"Tdonaly" <tdonaly@aol.com> wrote in message
news:20021214183509.23368.00000039@mb-mw.aol.com...
> Reg wrote,
> >
> >> The bad people, thereby, do not know who is, and who is not.
> >>
> >==========
> >And the good people do not know who is the bad people and who is not.
> >
>
> Moreover, the good people are the bad people when they get mad.
>
> Tom Donaly, KA6RUH
>
>

4831. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-16 23:58:07 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <uvsq325a4pqgab@corp.supernews.com>
Source record: 128971

I agree with Mr. Harrison. Many years ago, working as an (under age) broadcast engineer at an AM station, I watched a Summer storm hit our towers. I watched out the window with my hand near (note: near) the breaker on the transmitter (pair of 813s modulated with more 813s) and when a particularly big surge would trip the breaker I would re-assert same. No damage to physical plant. Would do nasty things to mice in the meter rooms at the base of the antennas.
One can protect from lightning. Sometimes, it is expensive. 73
Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:14684-3DFB838D-270@storefull-2316.public.lawson.webtv.net...
> Andy Cap wrote:
> "From what I have read, if you get struck by lightning, then nothing can
> save---."
>
> CW wrote: "Not true."
>
> CW is right. The broadcast stations I`ve worked in scarcely were
> interrupted by numerous direct hits they absorbed. The most significant
> damage they suffered was a pitting of their Faraday screens.
>
> Best regards, Richard Harrison, KB5WZI
>

4832. Re: Mast limit?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 00:02:01 UTC
From: L Caracciolo <larryc@northwest.com>
Message-ID: <3DFE6979.7BF71D27@northwest.com>
Source record: 128970

i personally wouldn;t use anything so high w/o guys, esp if chimney mounted.
=========

Benson Wills wrote:

> Oy, maybe I won't stack them then. I want to avoid using guy wires. I wonder
> if the 10' and 5' together would be OK for my application?
>
> In article <3DFE4A63.76C3BC18@northwest.com>,
> L Caracciolo <larryc@northwest.com> wrote:
>
> > i've used one of them (10' plus a 5' section) for the cushcraft long yagi
> > + rotator...but I also guyed the arrangement sturdily.
>
> --
> E-mail replies: change 'blackhole' to 'usenet3'

4833. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 00:13:19 UTC
From: k1bqt@aol.com
Message-ID: <20021216191319.01793.00000057@mb-fx.aol.com>
Source record: 128972

>USN 1968.<

More airplanes in the ocean than boats in the sky, I suppose. :-)

Rick K1BQT

4834. Re: 80 meter "Skywire Loop" antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 00:20:07 UTC
From: rckchp@comcast.net
Message-ID: <6dc33f40.0212161620.7aeb3809@posting.google.com>
Source record: 128973

This is a follow up to my original post about the "Loop Skywire"
antenna.

I put it up today....it is sort of a narrow rectangle rather than a
square loop....I don't have a long tape measure so the size is a very
rough estimate.....approx 170' long by approx 50' wide (approx 440'
total). One corner is up approx 35'....the nearest opposite corner is
approx 20' up.....then it slopes down to approx 15-20 ft at the far
ends. Its what fits with the trees I have on my property. The feed
point is approx 45' from the corner on one of the long legs. I'm using
rg8x, no balun. I didn't even try to "model this but I just worked
Boliva and Argentina (Tierra del Fuego)using my K2 with autotuner at 5
watts....so I'm a happy camper as I had nothing to use on 20m before
today. I'll be trying it on 80 and 160 tonite but may have to adjust
the feed line length to get a better match....the way it is I only get
4.7-1 on 160, but it does 1.2-1 on 80.

Rich K2CPE
K2 #1102

"KB9TMP" <kb9tmp@juno.com> wrote in message news:<uv79cutdo7ki30@corp.supernews.com>...
> "rich a." <rckchp@comcast.net> wrote in message
> news:6dc33f40.0212071805.281d729d@posting.google.com...
> > I am going to try an 80 meter "Loop Skywire" antenna, as described in
> > an article by Dave Fisher, W0MHS (he has a different call now)in the
> > Nov 1985 issue of QST (also in some editions of ARRL Antenna Book and
> > is available to members on the ARRL web site via search).
> >
> > I'm going to try and keep it somewhat "stealthy", so I plan to use
> > some #22 insulated wire. What I've got is a 1000' spool of twisted
> > pair(insulated single strand tinned copper). An 80 meter loop will be
> > approx 257.5' and it will be a bother to untwist that length, it has 1
> > twist every 2". Will there be any problems or "quirky" behavior if I
> > leave it twisted.....just bare, twist and solder the ends? Also, the
> > wires are white and orange....I'd like to soak the whole spool in
> > black dye to make is less visable....any problems doing that? Has
> > anyone done this? Thanks,
> >
> > Rich K2CPE
>
> Rich
> I used CAT 5E 24 AWG computer networking cable with 4
> twisted pairs and soldered all 8 wires together. Worked pretty
> well for our field day the last 2 years. The only problem is the
> bright' blue color of the outer jacket is not stealthy at all.

4835. Follow up to Dec. 8th post about "Loop Skywire"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 00:23:17 UTC
From: rckchp@comcast.net
Message-ID: <6dc33f40.0212161623.6f001fd8@posting.google.com>
Source record: 128974

This is a follow up to my original post about the "Loop Skywire"
antenna.

I put it up today....it is sort of a narrow rectangle rather than a
square loop....I don't have a long tape measure so the size is a very
rough estimate.....approx 170' long by approx 50' wide (approx 440'
total). One corner is up approx 35'....the nearest opposite corner is
approx 20' up.....then it slopes down to approx 15-20 ft at the far
ends. Its what fits with the trees I have on my property.

The feed point is approx 45' from the corner on one of the long legs.
I'm using rg8x, no balun. I didn't even try to "model" this but I just
worked Boliva and Argentina (Tierra del Fuego)using my K2 with
autotuner at 5 watts....so I'm a happy camper as I had nothing to use
on 20m before today. I'll be trying it on 80 and 160 tonite but may
have to adjust the feed line length to get a better match....the way
it is I only get 4.7-1 on 160, but it does 1.2-1 on 80.

Rich K2CPE
K2 #1102

4836. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 00:26:34 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dfe6f5a$0$6445$ba620e4c@news.skynet.be>
Source record: 128975
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Because you are living about 10m above ground level, you could try to hang down a vertical isolated wire at the rear side with the agreement of your neighbours (pay attention to electrical safety), just for trying. Maybe it could also give beter signals. You can hide the wire later. Both solutions (horizontal and vertical) will not give the same results but an outdoor antenna should be beter.

Noise level is a function of bandwidth but how can we design a tuner for such a wide frequency range and a random impedance situation ?

73 de ON5MJ - Jacques.

4837. Re: 2 meter quad problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 00:29:16 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dfe6fe1$0$86723$ba620e4c@news.skynet.be>
Source record: 128976

Waterproofing a soaked coax keeps water inside.

73 de ON5MJ - Jacques.

4838. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 00:36:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvsscpmlvqqsde@corp.supernews.com>
Source record: 128977

J. McLaughlin wrote:
> I agree with Mr. Harrison. Many years ago, working as an (under age)
> broadcast engineer at an AM station, . . .

Chuckle. Reminds me of my first day on the job as a broadcast engineer -- my mom had to give me a lift because I wansn't old enough to get a driver's license. . . I fired up the transmitter in the morning, ran a canned show all day, and shut it down at night. Got some good stories from those days at the transmitter shack behind the cemetery in the middle of a cow pasture in Golden. Lightning didn't bother the old Gates BC-1, either. Sometimes it would groan and the lights would get momentarily bright when the lightning hit the power line nearby, but I don't recall it ever being knocked off the air.

Roy Lewallen, W7EL

4839. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 00:42:00 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dfe72db$0$6456$ba620e4c@news.skynet.be>
Source record: 128978

Following me, a tuner serves to have a correct coupling at the PA , giving a correct DC supply current. Undercoupling or overcoupling provokes an excess of dissipated DC power.
Right or wrong ?

4840. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 00:53:31 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DFE758B.75A0C555@cwis.net>
Source record: 128979

Yes, the width of the two 'knives' will make an
impedance 'bump' in the feed line. IMpedance would
be higher than for the narrower 450 ohm line. Just
depending, it would probably make no 'big deal' at
all.
Actually, what I should have said was, yes it makes
a very big impedance 'bump' that will totally scew up
the impedance match at the transmitter. What you really
should do is send me that switch. To show you how
generous I am, I'll even pay half the shipping.
'Doc

PS - I got a feeling that this isn't gonna work...

4841. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 00:54:56 UTC
From: "Dan, danl, danny boy, Redbeard, actually Greybeard now" <danl@execpc.com>
Message-ID: <3dfe75bd$0$1403$272ea4a1@news.execpc.com>
Source record: 128980

On Mon, 16 Dec 2002 13:21:19 -0600, "Chuck/KE4ETH"
<chuck_hawks@hotmailNOSPAMORAMA.com> sent into the ether:

>
>
>
>"Dan, danl, danny boy, Redbeard, actually Greybeard now" <danl@execpc.com>
>wrote in message news:3dfe14f6$0$1428$272ea4a1@news.execpc.com...
>> On Sun, 15 Dec 2002 16:34:09 -0600, OC_CAM's Razor
>> <Cecil.A.Moore@ieee.org> sent into the ether:
>>
>> >I don't use them on coax, only on "450" ohm ladder-line. The spacing
>> >on the ladder-line is about 3/4" and the spacing between the knife
>> >switch conductors is about 5/8". I am not aware of more than a slight
>> >impedance bump using ladder-line.
>> Hi Cam,
>> I have a real nice knife switch. It is spaced about 4" apart for the
>> knives and is made from 1" x 1/8" copper. It is a dual set mounted on
>> a 3/4" thick piece of what appears to be Bakelite. I have used it for
>> various wire antennas and was wondering, does the width spacing affect
>> the swr when used with a narrower ladder line?
>> BTW, look for these types of switches at demolition companies.
>> Thanks
>
>Is that with or with out explosives?
Hi Chuck,
Why would there be explosive with it? I would not be surprised to see
Frankenstein's monster laying on a table beneath it, but explosives?
Where did that come from?

4842. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 01:01:37 UTC
From: richardharrison@webtv.net
Message-ID: <29779-3DFE7771-628@storefull-2311.public.lawson.webtv.net>
Source record: 128981

CAM wrote:
"---why do we need an antenna tuner which does exactly the same thing?"

The transmitter doesn`t work well enough without some help?

Maybe you want a coax cable with a wattmeter to prove there is no
reflected wave between your tuner and your radio.

Best regards, Richard Harrison, KB5WZI

4843. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 01:19:02 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <XmqdnTMUf_tp52OgXTWcqw@comcast.com>
Source record: 128982
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

What time of day do you listen? 49 meters is definately a night time band.
41 tends to be that way, and the other two are probably best heard in the
afternoon, although night time reception might be good if the solar flux is
high enough. Try getting 10 or 20 meters of antenna wire out the window.

Tam
"Candy" <candy200@mailandnews.com> wrote in message
news:3DFE569E.AC76F9C0@mailandnews.com...
> ON5MJ wrote:
> >
> > Which frequencies ?
> >
> > 73 de ON5MJ -Jacques.
>
> 25, 31, 41 and 49m bands are the most important to me, I'd like to
> improve reception on quite several frequencies in each band since I
> am interested in overseas stations. Is it possible ?
>

4844. Snake Antenna for 160 meters ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 01:34:32 UTC
From: N1RZB <n1rzb@110.net>
Message-ID: <uvsvmuumjuce@corp.supernews.com>
Source record: 128983

Has anyone ever heard of, or used this type of antenna? I have been told it work well on 160 and was given a very brief Idea as to what it is like. Would like some more info on it. If anyone has info or a web link I would appreciate hearing from you.

Thanks
N1RZB

4845. Re: Diamond HV7A Tuning on 6m

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 01:52:18 UTC
From: Aidan Murphy <Aidan@ei5hw.net>
Message-ID: <atm000rk1@kermit.esat.net>
Source record: 128985

It should be possible to get it lower than that. At 1.7:1 the antenna is not operating at it's most efficient state.

"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message news:3dfe43f2$0$86707$ba620e4c@news.skynet.be...
> 1.7:1 is quite nice. Where is the problem ?
>
>
> --
> on5mjREMOVE@skynet.be
>
>

4846. Re: What is the Difference Between the Butternut HF9V & HF9VX?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 01:52:18 UTC
From: chem_man <chem_man@iwon.com>
Message-ID: <al0tvugvbcaqpbc42fpdr09akme7pvrjj9@4ax.com>
Source record: 128986

On Mon, 16 Dec 2002 20:00:26 GMT, "Brian Igmac" <b_igmac@yahoo.com>
wrote:

>I have seen references to both model numbers... is there any real
>difference? What differences are there?
>
>Thanks
>

According to Butternut, there is none. One is just a newer "model
number" number than the other. Unfortunately not all dealers have
updated their catalogs.

FYI, I love mine!!!!!!!!!!! Haven't had a bit of trouble with it
(tuning or otherwise) while a buddy of mine from work has a comparable
GAP, and he has nothing but tuning troubles.

chem_man

4847. Re: 2 meter quad problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 02:05:26 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DFE8661.7000704@tampabay.rr.com>
Source record: 128987

bill
i would suggest using either PVC or fiberglass
i have a cubex quad and it uses 1/4 in fiberglass rods for spreaders
and i have had no problems at all
the cheapest thing for you to do would be wait till the wood dries then
waterproof it or something
good luck

Bill Grimwood wrote:
> The spreaders are made of wood. Should they have been of pvc or something
> else?
>
> Bill
>
>
> "Dale Parfitt" <parinc@verizon.net> wrote in message
> news:3DFE40C1.E2555346@verizon.net...
>
>>
>>Bill Grimwood wrote:
>>
>>
>>>Last weekend I put up a 2 meter quad and it tuned 1:2 which is a little
>>
> high
>
>>>but ok. This weekend it teads 1:10!! what has happened. I
>>
> waterproffed
>
>>>the coax so I do not believe that could be the problem. It did rain
>>
> three
>
>>>or four days last week.
>>>
>>>thanks
>>>
>>>Bill Grimwood
>>>
>>>K1WEG
>>
>>What are the spreaders made from? If wood, the corners that have voltage
>

> max are
>
>>probably loading the antenna. But my guess is still the coax.
>>
>>Dale W4OP
>>
>
>
>

4848. Re: Snake Antenna for 160 meters ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 02:24:34 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3DFE8ADD.1000106@tampabay.rr.com>
Source record: 128988

go to www.ac6v.com i think i was plans on how to build one there

N1RZB wrote:
> Has anyone ever heard of, or used this type of antenna? I have been told it work well on 160 and was given a very brief Idea as to what it is like. Would like some more info on it. If anyone has info or a web link I would appreciate hearing from you.
>
> Thanks
> N1RZB

4849. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 02:28:45 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <xZvL9.374144$WL3.113613@rwcrnsc54>
Source record: 128989

You never did say what you had in mind, just that car dealers use balloons for advertising and you once messed around with a wire recorder. I'm going to assume that you are contemplating raising a wire by balloon and using it as a two meter antenna. It should work quite well as long as your intended contact is somewhere in outer space. It would be quite directional. Strait up.
"kc5cqa" <kc5cqa@devtex.net> wrote in message
news:em5tvu0mtvfjgnehue3qc8tc4mnijop7th@4ax.com...
> Noticed the car dealers here are using lighter than air gas balloons
> for attracting attention to their autos. One in particular caught my
> attention. line with small flags then balloon, and then line with
> flags continuing up to next baloon and then on and on for several
> balloons. Line topped out at about around 200 feet. Now for my
> question. When I was a kid in the 1950's my dad had a recorder, but
> it was wire, being a kid, I got ''into it''. I remember it was very
> hard to break, and very thin. Ok with all that said,,, what would be
> involved in making a two meter antenna using these 'odds and ends'????
> Would there be a website that 'explories more of these ideas???
> would apprecite any ideas and input. thanks cl 73

4850. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 02:46:00 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <g04tvu0oenpjsn3nnr4jt4g4rrgcucu5ts@4ax.com>
Source record: 128990

On 17 Dec 2002 00:13:19 GMT, k1bqt@aol.com (Rick Littlefield) wrote:

>>USN 1968.<
>
>More airplanes in the ocean than boats in the sky, I suppose. :-)
>
>Rick K1BQT

Hi Rick,

At the time, the US Army had a larger air force and navy than the Air Force and the Navy.

73's
Richard Clark, KB7QHC

4851. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 02:54:09 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DFE91D1.626E4435@cwis.net>
Source record: 128991

CL,
As long as you took proper precautions with the baloon
I don't see why it wouldn't work. If the baloons you're
talking about are the 'blimp' type, I would think they
would hold a pretty fair weight load. I would also think
that you would be using cable to tether the baloon that
was quite a bit more than just wire (how about 1/4 air-
craft cable or larger, depending on the baloon of course).
Also depending on how the tether was made, you could
probably load the cable as an antenna. Not really sure
how well that long of a 'longwire' antenna would work at
VHF (impedance matching problems), but you ought to be
able to hit the local repeaters easily!
Safety is the primary concern. There should be a
number of articals about 'baloon antennas' for HF, but
the same safety 'rules' apply.
'Doc

4852. Re: Snake Antenna for 160 meters ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 02:55:47 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DFE9233.624BFC81@cwis.net>
Source record: 128992

N1RZB,
They work fairly well as a receiving antenna, but
not well at all for transmitting. QST had an artical
about them a number of years ago...
'Doc

4853. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 02:58:14 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <uvt4mfkh7jsm5c@corp.supernews.com>
Source record: 128993

good for a 160 or 80 meter...
at multiple 1/2 waves where a good ground is not as important...
but the wire should be copper or copper clad...
as I recall recorder wire doesn't rust so I'd guess its resistivity is
pretty high!
now give us clearer picture of what you'd do on 2 meters!
73
hank wd5jfr
"kc5cqa" <kc5cqa@devtex.net> wrote in message
news:em5tvu0mtvfjgnehue3qc8tc4mnijop7th@4ax.com...
> Noticed the car dealers here are using lighter than air gas balloons
> for attracting attention to their autos. One in particular caught my
> attention. line with small flags then balloon, and then line with
> flags continuing up to next baloon and then on and on for several
> balloons. Line topped out at about around 200 feet. Now for my
> question. When I was a kid in the 1950's my dad had a recorder, but
> it was wire, being a kid, I got ''into it''. I remember it was very
> hard to break, and very thin. Ok with all that said,,, what would be
> involved in making a two meter antenna using these 'odds and ends'????
> Would there be a website that 'explories more of these ideas???
> would apprecite any ideas and input. thanks cl 73

4854. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 03:22:42 UTC
From: "Dan, danl, danny boy, Redbeard, actually Greybeard now" <danl@execpc.com>
Message-ID: <3dfe985e$0$1420$272ea4a1@news.execpc.com>
Source record: 128994

On Mon, 16 Dec 2002 18:53:31 -0600, 'Doc <w5lz@cwis.net> sent into the ether:

> Yes, the width of the two 'knives' will make an
>impedance 'bump' in the feed line. IMpedance would
>be higher than for the narrower 450 ohm line. Just
>depending, it would probably make no 'big deal' at
>all.
> Actually, what I should have said was, yes it makes
>a very big impedance 'bump' that will totally scew up
>the impedance match at the transmitter. What you really
>should do is send me that switch. To show you how
>generous I am, I'll even pay half the shipping.
> 'Doc
>
>PS - I got a feeling that this isn't gonna work...
Doc,
Those feelings come along more often as we age :<}

4855. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 03:29:02 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <VJEL9.32659$6z5.3206@news.bellsouth.net>
Source record: 129005

Never had a transmitter go off the air due to a lightning strike. (Just lucky) But, the old Collins V20-1 (I think it was a V20) went dark one morning. We had a large snake in the cabinet, in the PA coils. We were cleaning fried snake out for months, and as far as I know there might still bet pieces left.

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

"J. McLaughlin" <JCM@Power-Net.Net> wrote in message
news:uvsq325a4pqgab@corp.supernews.com...
> I agree with Mr. Harrison. Many years ago, working as an (under age)
> broadcast engineer at an AM station, I watched a Summer storm hit our
> towers. I watched out the window with my hand near (note: near) the
> breaker on the transmitter (pair of 813s modulated with more 813s) and
> when a particularly big surge would trip the breaker I would re-assert
> same. No damage to physical plant. Would do nasty things to mice in
> the meter rooms at the base of the antennas.
> One can protect from lightning. Sometimes, it is expensive. 73
> Mac N8TT
>
> --
> J. Mc Laughlin - Michigan USA
> Home: JCM@Power-Net.Net
>
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:14684-3DFB838D-270@storefull-2316.public.lawson.webtv.net...
> > Andy Cap wrote:
> > "From what I have read, if you get struck by lightning, then nothing
> can
> > save---."
> >
> > CW wrote: "Not true."
> >
> > CW is right. The broadcast stations I`ve worked in scarcely were
> > interrupted by numerous direct hits they absorbed. The most
> significant
> > damage they suffered was a pitting of their Faraday screens.
> >
> > Best regards, Richard Harrison, KB5WZI
> >

>

4856. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 03:30:51 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <_JEL9.32661$6z5.23303@news.bellsouth.net>
Source record: 129006

It was mentioned:

>> BTW, look for these types of switches at demolition companies.
>> Thanks

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

"Dan, danl, danny boy, Redbeard, actually Greybeard now" <danl@execpc.com>
wrote in message news:3dfe75bd$0$1403$272ea4a1@news.execpc.com...
> On Mon, 16 Dec 2002 13:21:19 -0600, "Chuck/KE4ETH"
> <chuck_hawks@hotmailNOSPAMORAMA.com> sent into the ether:
>
> >
> >
> >
> >"Dan, danl, danny boy, Redbeard, actually Greybeard now"
<danl@execpc.com>
> >wrote in message news:3dfe14f6$0$1428$272ea4a1@news.execpc.com...
> >> On Sun, 15 Dec 2002 16:34:09 -0600, OC_CAM's Razor
> >> <Cecil.A.Moore@ieee.org> sent into the ether:
> >>
> >> >I don't use them on coax, only on "450" ohm ladder-line. The spacing
> >> >on the ladder-line is about 3/4" and the spacing between the knife
> >> >switch conductors is about 5/8". I am not aware of more than a slight
> >> >impedance bump using ladder-line.
> >> Hi Cam,
> >> I have a real nice knife switch. It is spaced about 4" apart for the
> >> knives and is made from 1" x 1/8" copper. It is a dual set mounted on
> >> a 3/4" thick piece of what appears to be Bakelite. I have used it for
> >> various wire antennas and was wondering, does the width spacing affect
> >> the swr when used with a narrower ladder line?
> >> BTW, look for these types of switches at demolition companies.
> >> Thanks
> >
> >Is that with or with out explosives?
> Hi Chuck,
> Why would there be explosive with it? I would not be surprised to see
> Frankenstein's monster laying on a table beneath it, but explosives?
> Where did that come from?

4857. will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 03:40:03 UTC
From: kc5cqa <kc5cqa@devtex.net>
Message-ID: <em5tvu0mtvfjgnehue3qc8tc4mnijop7th@4ax.com>
Source record: 128984

Noticed the car dealers here are using lighter than air gas balloons
for attracting attention to their autos. One in particular caught my
attention. line with small flags then balloon, and then line with
flags continuing up to next baloon and then on and on for several
balloons. Line topped out at about around 200 feet. Now for my
question. When I was a kid in the 1950's my dad had a recorder, but
it was wire, being a kid, I got ''into it''. I remember it was very
hard to break, and very thin. Ok with all that said,,, what would be
involved in making a two meter antenna using these 'odds and ends'????
Would there be a website that 'explories more of these ideas???
would apprecite any ideas and input. thanks cl 73

4858. Re: Reflected power...the TRUE story!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 04:00:16 UTC
From: gmz79@aol.comnospam
Message-ID: <20021216230016.11224.00000078@mb-ce.aol.com>
Source record: 128995

>Rice will not burn under water!

My XYL can disprove that one!
KC8VIF
Greg Z
to thine own sound be true

4859. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 04:48:36 UTC
From: The Axelrods <saxelrod@mb.sympatico.ca>
Message-ID: <3DFEACA4.C1E88487@mb.sympatico.ca>
Source record: 128996
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Go to the AMANDX web pages listed at end of message....several ideas
that may help out

Shawn

Candy wrote:

> I live in an appartment, urban area (down town). My new YB-400
> receives only strong stations (indoor) when I extend its built-in
> antenna, weaker stations are barely audible, and there is lot of
> noise, too. Reel antenna by Grundig which is included in the
> package, improves sensitivity a bit.
>
> Someone told me an outdoor antenna may reduce noise(?) and improve
> sensitivity.
>
> I am really radio illiterate, so all I can think off is a kind of
> small inverted-L antenna, 3.80m (12.46') long enamelled copper wire
> span on a top of a balcony ceiling which will be about 10 metres
> above a street.
>
> Will this project help ? If so, should I use a bare copper wire
> or enamelled wire ? Do I need a tuner for the antenna to cover
> 11-90m bands ?
>
> If this idea for reducing noise and improving sensitivity is useles,
> please suggest something that will work. A balcony is 390x30cm.
>
> Are there any pre-built low cost outdoor stealth antennas which will
> help in my case ?
>
> Thank you very much.

--
73 and Best of DX
Shawn Axelrod

Visit the AMANDX DX info site with info for the new or experienced
listener:

http://www.angelfire.com/mb/amandx/index.html

REMEMBER ON A CLEAR DAY YOU CAN HEAR FOREVER

4860. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 04:50:34 UTC
From: Alfred Lorona <w6wqc@dslextreme.com>
Message-ID: <atmaf2$eb0l$1@ID-49117.news.dfncis.de>
Source record: 128997

Thank you all, gents. The knife switch I had in mind has two blades, DPDT, spaced about 3 inches apart, made out of heavy copper and mounted on a white glazed ceramic base. Perfect to open and ground open wire transmission line. Hard to find anymore but will check out your suggestions.

73 de AL.

4861. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 04:57:39 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <79yL9.2598$6J1.86@sccrnsc04>
Source record: 128998

This is going to sound like a joke but it's not. The FAA requires that you file a flight plan before flying any tethered balloon that contains more than 105 feet of gas. This rule is widely ignored but could come up if an accident were to happen.

"'Doc" <w5lz@cwis.net> wrote in message news:3DFE91D1.626E4435@cwis.net...
> CL,
> As long as you took proper precautions with the baloon
> I don't see why it wouldn't work. If the baloons you're
> talking about are the 'blimp' type, I would think they
> would hold a pretty fair weight load. I would also think
> that you would be using cable to tether the baloon that
> was quite a bit more than just wire (how about 1/4 air-
> craft cable or larger, depending on the baloon of course).
> Also depending on how the tether was made, you could
> probably load the cable as an antenna. Not really sure
> how well that long of a 'longwire' antenna would work at
> VHF (impedance matching problems), but you ought to be
> able to hit the local repeaters easily!
> Safety is the primary concern. There should be a
> number of articals about 'baloon antennas' for HF, but
> the same safety 'rules' apply.
> 'Doc

4862. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 04:59:22 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <uvtbnpj69tit3b@corp.supernews.com>
Source record: 128999

Wow! We also had a Gates transmitter, but I have no recollection of its model number. It is possible that I had a driver's license, but I took myself out to the transmitter/studio by bicycle. Certainly did not have a car. In the early morning, I would sometimes buy a bottle of milk from the delivery man (another trade that has disappeared.) and have a big breakfast while playing one of those huge disks that were adds for the military. The man who owned the station was also a Scot and knew not to ask the wrong questions: "lets see your first phone license" "you may start at sunup and work 'till sundown" License at that time did not have age marked on it. Had to have my Mother cash my pay checks as I was working when the banks were open. My what an education that job provided.
Had a DJ who insisted on turning up the clipping limiter. Could not get him to keep his hands off of the control. One night, took the control off the panel and replaced it with a dummy pot.
There were even stories of 160 meter operation after signoff......
Opportunities like those seem not to exist today. Sad. 73 Mac
N8TT
--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:uvsscpmlvqqsde@corp.supernews.com...
>
>
> J. McLaughlin wrote:
> > I agree with Mr. Harrison. Many years ago, working as an (under
age)
> > broadcast engineer at an AM station, . . .
>
>
> Chuckle. Reminds me of my first day on the job as a broadcast engineer
> -- my mom had to give me a lift because I wansn't old enough to get a
> driver's license. . . I fired up the transmitter in the morning, ran a
> canned show all day, and shut it down at night. Got some good stories
> from those days at the transmitter shack behind the cemetery in the
> middle of a cow pasture in Golden. Lightning didn't bother the old
Gates
> BC-1, either. Sometimes it would groan and the lights would get
> momentarily bright when the lightning hit the power line nearby, but I
> don't recall it ever being knocked off the air.
>
> Roy Lewallen, W7EL

>

4863. Re: Reflected power...the TRUE story!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 07:09:04 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DFECD90.B22E9A90@cwis.net>
Source record: 129000

I take it that she doesn't read this NG??
'Doc

4864. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 07:45:57 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0212162345.2fc48a10@posting.google.com>
Source record: 129001
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Hi Candy,
a random wire, nearly horizontal, as long and as high as possible,
seems to be the simple solution. No tuner is necessary for receiving,
but a simple matching LC circuit (dowload SELECT_1.EXE from Reg
Edwards G4FGQ, http://www.btinternet.com/~g4fgq.regp/page3.html#S301)
can improve both the selectivity and sensitivity. Do not forget about
a good RF grounding of your receiver. And employ some lightning
protection: disconnecting the antenna and throwing its lead out from
the balcony when you don't operate seems to be the simplest.

BR from Ivan

4865. Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 10:59:08 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0212170259.58aa4ddd@posting.google.com>
Source record: 129002

Hello...,

For some time now there are a few questions in my mind for which I did some theoretical assumptions.

Front to back ratio (F/B) is specified as the difference (in dB's) between the gain for the main lobe and the gain in the opposite (+180 or -180 Azimuth-degrees) direction. (Free space assumed)

What about the F/B ratio for directions not equal to the main beam direction ? Is F/B ratio now related to the direction opposite to the direction of interest or is F/B ratio only used in conjuction with main-beam direction ?

Furthermore how exactly is F/B ratio specified when ground is involved and the main beam is pointing upwards for lets say 30 degree elevation. Is it appropriate to get the backward gain also for 30 elevation but with 180 degree azimuth difference ?

From the theorectics, Front to Rear (F/R) ratio is specified as the difference between gain for the main lobe and the gain for the maximum lobe in the backward half of the pattern. So for angle-difference from 90 to 270 degrees to the main beam direction.

My next question, should the whole backward half of the 'radiation-sphere' be considered or is this restricted to just the horizontal plane ?

Finally how is F/R ratio specified when ground is involved (main-beam points upwards) or when a direction, not equal to the main-beam direction is considered ?

I hope someone can give me a more final answer to my uncertainties...

Arie.

4866. Re: Follow up to Dec. 8th post about "Loop Skywire"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 11:06:32 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <YyDL9.32179$_S2.25051@nwrddc01.gnilink.net>
Source record: 129003

Another ham gone Loopy! Guess you wouldn't be interested in a rarely used
G5RV would you?

'73 KI4Z

"rich a." <rckchp@comcast.net> wrote in message
news:6dc33f40.0212161623.6f001fd8@posting.google.com...
> This is a follow up to my original post about the "Loop Skywire"
> antenna.
>
> I put it up today....it is sort of a narrow rectangle rather than a
> square loop....I don't have a long tape measure so the size is a very
> rough estimate.....approx 170' long by approx 50' wide (approx 440'
> total). One corner is up approx 35'....the nearest opposite corner is
> approx 20' up.....then it slopes down to approx 15-20 ft at the far
> ends. Its what fits with the trees I have on my property.
>
> The feed point is approx 45' from the corner on one of the long legs.
> I'm using rg8x, no balun. I didn't even try to "model" this but I just
> worked Boliva and Argentina (Tierra del Fuego)using my K2 with
> autotuner at 5 watts....so I'm a happy camper as I had nothing to use
> on 20m before today. I'll be trying it on 80 and 160 tonite but may
> have to adjust the feed line length to get a better match....the way
> it is I only get 4.7-1 on 160, but it does 1.2-1 on 80.
>
> Rich K2CPE
> K2 #1102

4867. Re: Follow up to Dec. 8th post about "Loop Skywire"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 12:02:54 UTC
From: KC1DI <elbc2@gwi.net>
Message-ID: <6i4uvucjclrkoefkuoq4rl3i3u2hbt1iba@4ax.com>
Source record: 129004

On 16 Dec 2002 16:23:17 -0800, rckchp@comcast.net (rich a.) wrote:

>This is a follow up to my original post about the "Loop Skywire"
>antenna.
>
>I put it up today....it is sort of a narrow rectangle rather than a
>square loop....I don't have a long tape measure so the size is a very
>rough estimate.....approx 170' long by approx 50' wide (approx 440'
>total). One corner is up approx 35'....the nearest opposite corner is
>approx 20' up.....then it slopes down to approx 15-20 ft at the far
>ends. Its what fits with the trees I have on my property.
>
> The feed point is approx 45' from the corner on one of the long legs.
>I'm using rg8x, no balun. I didn't even try to "model" this but I just
>worked Boliva and Argentina (Tierra del Fuego)using my K2 with
>autotuner at 5 watts....so I'm a happy camper as I had nothing to use
>on 20m before today. I'll be trying it on 80 and 160 tonite but may
>have to adjust the feed line length to get a better match....the way
>it is I only get 4.7-1 on 160, but it does 1.2-1 on 80.
>
>Rich K2CPE
>K2 #1102

Welcome to the land of happy big loop users.. 73 dave kc1di ....

4868. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 12:37:29 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <_FJL9.35541$6z5.30837@news.bellsouth.net>
Source record: 128920

The companies that use explosives to remove buildings.

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

"Chuck/KE4ETH" <chuck_hawks@hotmailNOSPAMORAMA.com> wrote in message
news:_JEL9.32661$6z5.23303@news.bellsouth.net...
> It was mentioned:
>
> >> BTW, look for these types of switches at demolition companies.
> >> Thanks
>
>
> --
> 73,
> Chuck
> KE4ETH
> USA-NA
> Remove the obvious from Email.
>
>
>
> "Dan, danl, danny boy, Redbeard, actually Greybeard now" <danl@execpc.com>
> wrote in message news:3dfe75bd$0$1403$272ea4a1@news.execpc.com...
> > On Mon, 16 Dec 2002 13:21:19 -0600, "Chuck/KE4ETH"
> > <chuck_hawks@hotmailNOSPAMORAMA.com> sent into the ether:
> >
> > > >
> > > >
> > > >
> > > >"Dan, danl, danny boy, Redbeard, actually Greybeard now"
> <danl@execpc.com>
> > >wrote in message news:3dfe14f6$0$1428$272ea4a1@news.execpc.com...
> > >> On Sun, 15 Dec 2002 16:34:09 -0600, OC_CAM's Razor
> > >> <Cecil.A.Moore@ieee.org> sent into the ether:
> > >>
> > >> >I don't use them on coax, only on "450" ohm ladder-line. The spacing
> > >> >on the ladder-line is about 3/4" and the spacing between the knife
> > >> >switch conductors is about 5/8". I am not aware of more than a
slight
> > >> >impedance bump using ladder-line.

> > >> Hi Cam,
> > >> I have a real nice knife switch. It is spaced about 4" apart for the
> > >> knives and is made from 1" x 1/8" copper. It is a dual set mounted
on
> > >> a 3/4" thick piece of what appears to be Bakelite. I have used it
for
> > >> various wire antennas and was wondering, does the width spacing
affect
> > >> the swr when used with a narrower ladder line?
> > >> BTW, look for these types of switches at demolition companies.
> > >> Thanks
> > >
> > >Is that with or with out explosives?
> > Hi Chuck,
> > Why would there be explosive with it? I would not be surprised to see
> > Frankenstein's monster laying on a table beneath it, but explosives?
> > Where did that come from?
>
>
>

4869. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 13:28:54 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <qEFL9.378507$WL3.115153@rwcrnsc54>
Source record: 129007
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

You say no tuner is necessary then say to use a tuner. Interesting.
"OK1SIP" <remove_ok1sip@atlas.cz> wrote in message
news:5f5159fa.0212162345.2fc48a10@posting.google.com...
> Hi Candy,
> a random wire, nearly horizontal, as long and as high as possible,
> seems to be the simple solution. No tuner is necessary for receiving,
> but a simple matching LC circuit (dowload SELECT_1.EXE from Reg
> Edwards G4FGQ, http://www.btinternet.com/~g4fgq.regp/page3.html#S301)
> can improve both the selectivity and sensitivity. Do not forget about
> a good RF grounding of your receiver. And employ some lightning
> protection: disconnecting the antenna and throwing its lead out from
> the balcony when you don't operate seems to be the simplest.
>
> BR from Ivan

4870. Re: Diamond HV7A Tuning on 6m

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 14:31:30 UTC
From: gmz79@aol.comnospam
Message-ID: <20021217093130.15436.00000079@mb-ci.aol.com>
Source record: 129009

>It should be possible to get it lower than that. At 1.7:1 the antenna is not
>operating at it's most efficient state.

1.7:1 on the long band of a quad band ain't all that bad, did you try
varing the length of the coax?

kc8vif
Greg Z
to thine own sound be true

4871. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 14:35:17 UTC
From: Bill Ogden <ogden@us.ibm.com>
Message-ID: <3DFF3625.EF12A8F9@us.ibm.com>
Source record: 129008

> Chuckle. Reminds me of my first day on the job as a broadcast engineer
> -- my mom had to give me a lift because I wansn't old enough to get a
> driver's license. . . I fired up the transmitter in the morning, ran a
> canned show all day, and shut it down at night. Got some good stories

My first day (at an FM station) started with instructions on how to read the "frequency meter" quickly, because it changed so fast!

It was a school station--on the air from 4 PM to midnight. We had two of the large Ampex tape machines (the most expensive things in the place) with nice remote controls. I went on the air by playing standard tapes for 30 minutes, by which time "real people" were supposed to arrive. The tapes were so brittle that they often broke in the first minute or so, leaving dead air. I usually grabbed whatever record appealed to me and put it on while fixing the tape.

The transmitter (5 KW ERP; don't remember the actual power) was an antique; it had a wheel as large as a car steering wheel to "bring up the voltage". The year after I left, the FCC inspected the place and the school (which I shall leave unnamed) suddenly bought a considerable amount of new equipment.

It was a nice student job --- take the transmitter on and off the air, read the meters, and keep the transmitter log. (I usually filled in the log the next day, "by memory".) It was the only job where I used the "P1" license; have never used my "T2" and probably never will considering the changes in ship radio requirements.

Bill
W2WO

4872. Re: Diamond HV7A Tuning on 6m

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 14:53:55 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFF3A83.10809@ieee.org>
Source record: 129010

greg z wrote:
>>It should be possible to get it lower than that. At 1.7:1 the antenna is not
>>operating at it's most efficient state.
>
> 1.7:1 on the long band of a quad band ain't all that bad, did you try
> varing the length of the coax?

Varying the length of 50 ohm coax won't appreciably change the 50 ohm
SWR unless the coax is very lossy. If you want to use a tuned feedline,
it needs to be something besides Z0=50 ohms.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4873. Re: Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 15:02:05 UTC
From: k3bu@aol.com
Message-ID: <20021217100205.07110.00000203@mb-mu.aol.com>
Source record: 129011

Hi Arie,
thanks for work on the 4NEC2, I have not had the chance to play with it yet, but let me try to shine some light on the subject of your questions from the serious user/contester point of view:

>Arie writes:

>For some time now there are a few questions in my mind for which I
>did some theoretical assumptions.
>
>Front to back ratio (F/B) is specified as the difference (in dB's)
>between the gain for the main lobe and the gain in the opposite
>(+180 or -180 Azimuth-degrees) direction. (Free space assumed)
>

I think this spec is carry over from the days when things were simple, antennas with single driven element which exhibited major lobes at 0 and 180 deg, that's where F/B comes from. It was the major indicator of the antenna's performance.

>What about the F/B ratio for directions not equal to the main beam
>direction ? Is F/B ratio now related to the direction opposite to the
>direction of interest or is F/B ratio only used in conjuction with
>main-beam direction ?
>

Then when the dual driven elements, like in ZL special, HB9CV and other designs came to play, the "F/B" became almost infinite due to the cardioid pattern, which exhibited deep null in the 180 deg direction, but had two lobes off the back half. Technically those lobes should not be called F/B, practically they are in the "back" or rear half of the pattern) in order to distinguish it from "pure" F/B of 180 deg. More appropriate is the term F/R - front to rear, implying that we are looking for the ratio of signal strength between the main lobe at the front 0 deg. versus max lobes in the 90 to 270 deg "rear" half. The proper representation of the antenna's "F/B" should be really the volume of the front lobe (270 - 90 deg) vs. all rear lobes (90 - 270 deg). This is if we are interested in the overall performance of the antenna and its "back" or "side" rejection properties (in addition to gain figures of major lobes). For contester there is a split in desired TX and RX antenna performance: for transmit we want to be loud everywhere, for receive we want sharpest and most steerable pattern with max. F/B or F/R or F/S in order to improve signal to noise ratio and be able to dig out weak signals from the band QRM and atmospheric noise.

>Furthermore how exactly is F/B ratio specified when ground is involved
>and the main beam is pointing upwards for lets say 30 degree elevation.
>Is it appropriate to get the backward gain also for 30 elevation but

>with 180 degree azimuth difference ?
>

I think, mainly because of the marketing departments of antenna manufacturers, we were presented with the best F/B figure they could find in the pattern. When ground is involved (especially with vertical antennas) it affects the pattern of the antenna, based on the height. I think, now with modeling software, we are best served by exploring the patterns in our particular situation. I think it is impractical to specify the F/B etc. for each height. (We could use say, half or one wavelength height as a practical "standard".) It is possible to have rear lobes at different angles than the front lobe and it would get tedious and have some kind of standard to "standardize" this. We are dealing with three dimensional "animals" and we are best served by observing the 3D patterns in software, which gives us idea what is going on and what to expect in real life (if we don't connect the feedline or involve tower, or conductors in the vicinity :-)

>From the theorectics, Front to Rear (F/R) ratio is specified as the
>difference between gain for the main lobe and the gain for the maximum
>lobe in the backward half of the pattern. So for angle-difference from
>90 to 270 degrees to the main beam direction.
>

Makes more sense and it should be specified for particular ground situation and worst (best) angles of the major lobes.

>My next question, should the whole backward half of the 'radiation-
>sphere' be considered or is this restricted to just the horizontal
>plane ?
>

Ideally, I think in addition, the volume contained by the RF in the lobes in the half-spheres would be best representation of the antenna's properties, just horizontal plane is the next best approximation or picture of it.

>Finally how is F/R ratio specified when ground is involved (main-
>beam points upwards) or when a direction, not equal to the main-beam
>direction is considered ?
>

Again, main lobe can have different angle than max rear lobes, the true spec would specify those lobes, which could change with changing antenna's height over real ground.

>I hope someone can give me a more final answer to my uncertainties...
>

Here is the one, I am sure more would be coming :-)

With modeling software we have a tools to look at different designs, try them in different environments and get the IDEA what affects what. There are more, hard to include factors and variables in real life, but this is quantum leap in what we used to have.

Antenna requirements vary with user's needs, contester looks for every bit of dB in gain or suppression in F/R/S, where DXer might be happy with lot less and casual ham or ragchewer with even less.
I typically sacrifice a dB in front lobe for the cleaner pattern and max rejection in F/R/S - where I can "gain" tens of dB in rejection properties and tremendous improvement in signal to noise reception.
So what I would like to see in the specs? Specify the gain for particular height of antenna in dB (@ deg.) of the main lobe and "gain" (@ deg) of the "worst" rear lobe(s).

73 and GL, Yuri, K3BU, VE3BMV

4874. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 15:03:12 UTC
From: richardharrison@webtv.net
Message-ID: <14688-3DFF3CB0-10@storefull-2316.public.lawson.webtv.net>
Source record: 129013

Alfred Lorona wrote:
"The knife switch I had in mind has two blades, DPDT, spaced about 3 inches apart, made of heavy copper and mounted on a white ceramic base."

My switch does not meet Al`s spec. Spacing is only 2 and 3/8 incches. The base is not white, but it is heavy dark gray slate. But the price was only $0.70 (used) at Electronic Parts Outlet in Houston. They don`t have any now. Mine is not for sale.

Electric Wire and Cable in Houston has this kind of stuff. My load center came from there. It was salvaged from a Ward`s store in Monroe, LA according to an identification tag. It and the breakers I installed cost only pennies on the dollar. This assembly has served me faultlessly for 30 years. I did my own house wiring.

There is likely an electrical surplus and salvage store near you, siimilar to Electric Wire and Cable. My compay used to buy tons of electrical equipment from Electric Wire and Cable. Commercially, we liked to save money too. We always had good results.

Best regards, Richard Harrison, KB5WZI

4875. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 15:08:44 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <NDv=PdutJerXRUGZVDWcRTkb39JK@4ax.com>
Source record: 129012

"Alfred Lorona" <w6wqc@dslextreme.com> wrote:

>Thank you all, gents. The knife switch I had in mind has two blades, DPDT,
>spaced about 3 inches apart, made out of heavy copper and mounted on a white
>glazed ceramic base. Perfect to open and ground open wire transmission line.
>Hard to find anymore but will check out your suggestions.
>
>73 de AL.
>

Try the web site for Surplus Sales of Nebraska. Go to...

http://www.surplussales.com/Antennas/Antennasmain.html

...and punch up Page 4.

It's exactly what you're looking for. You'll have to re-wire it for what you
want, but that should be simple.

These old switches ain't cheap, tho'!

(Another place you can look is the web site for Fair Radio Sales.)

Bob
k5qwg

4876. Re: Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 16:02:27 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <c8iuvuorkm52j1g2febqf5gkp7lqte3vna@4ax.com>
Source record: 129014

On 17 Dec 2002 15:02:05 GMT, k3bu@aol.com (Yuri Blanarovich) wrote:

[much deleted]

|Again, main lobe can have different angle than max rear lobes, the true spec
|would specify those lobes, which could change with changing antenna's height
|over real ground.

How can this be? The elevation pattern is developed from the
constructive and destructive interferance between the direct and
earth-reflected radiation.

To the rear, there may be less radiation but isn't it affected by the
reflections from earth the same way?

Can you show an example where what you say occurs?

73,

Wes N7WS

4877. Re: Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 16:29:46 UTC
From: k3bu@aol.com
Message-ID: <20021217112946.06639.00000192@mb-fp.aol.com>
Source record: 129015

>
>On 17 Dec 2002 15:02:05 GMT, k3bu@aol.com (Yuri Blanarovich) wrote:
>
>[much deleted]
>
>|Again, main lobe can have different angle than max rear lobes, the true spec
>|would specify those lobes, which could change with changing antenna's height
>|over real ground.
>
>
>How can this be? The elevation pattern is developed from the
>constructive and destructive interferance between the direct and
>earth-reflected radiation.
>
>To the rear, there may be less radiation but isn't it affected by the
>reflections from earth the same way?
>
>Can you show an example where what you say occurs?
>
>73,
>
>Wes N7WS

Soitenly!

I have for example vertical 4 Square design which in EZNEC shows the following properties (in 0 - 180 deg vertical plane):

Front lobe at 10 deg 10.32 dBi
Back lobe
at 120 deg -15.5 dBi
dip at 148 deg -22.5 dBi
at 172 deg. -16.6 dBi
sooo, there is one big front lobe with max at 10 deg.
and two back lobes with minimum between them at 148 and peaks at 120 and 172 deg.

I can supply the EZNEC file (against non-disclosure agreement :-)

I would explain that in real life/earth situations we are dealing with reflections and interaction between the elements, ground, etc. Otherwise blame W7EL for the program producing false results :-) If you had just dipole than your assumption is valid, but with multitude of elements "tings change". Add to it Fractals and things really get messy :-)

73 Yuri

4878. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 16:45:41 UTC
From: di540@FreeNet.Carleton.CA
Message-ID: <atnkbl$b1g$1@freenet9.carleton.ca>
Source record: 129016

>> Someone told me an outdoor antenna may reduce noise(?) and improve
>> sensitivity.
>>
>> I am really radio illiterate, so all I can think off is a kind of
>> small inverted-L antenna, 3.80m (12.46') long enamelled copper wire
>> span on a top of a balcony ceiling which will be about 10 metres
>> above a street.

This is too short, a loop will give better results, for such limited space.

>> Will this project help ? If so, should I use a bare copper wire
>> or enamelled wire ? Do I need a tuner for the antenna to cover
>> 11-90m bands ?

No, but it will help.

>> If this idea for reducing noise and improving sensitivity is useles,
>> please suggest something that will work. A balcony is 390x30cm.
>>
>> Are there any pre-built low cost outdoor stealth antennas which will
>> help in my case ?

There are a number of pre-built loops, but none are low cost. You could
probably build your own, and hide it well enough to be stealthy. Arnie
Coro offered to send plans for one by sending him an email for the 3-turn
loop antenna. HIs email address is
arnie@radiohc.cu

4879. Re: Mast limit?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 17:30:49 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <lhnuvusp9155ss6i226sgjl6vhigmtqg44@4ax.com>
Source record: 129017

On Mon, 16 Dec 2002 17:50:18 -0500, Benson Wills <blackhole@doozy.us>
wrote:

>Oy, maybe I won't stack them then. I want to avoid using guy wires. I
>wonder if the 10' and 5' together would be OK for my application?
>
Hi Benson,

Yup, should do the job real good if you want to pull down a chimney.
Even at five feet.

A chimney's strength is entirely in the up/down direction, and much
less in the side/side direction. An antenna + mast under wind load is
significantly side/side strength challenging. Guying reduces that
load; but remember, most chimneys fall through roofs, not down them
(the downside to that up/down strength).

73's
Richard Clark, KB7QHC

4880. Re: Mast limit?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 17:35:10 UTC
From: KB9TMP <kb9tmp@juno.com>
Message-ID: <uvuo1qe3ff0834@corp.supernews.com>
Source record: 129018

"Benson Wills" <blackhole@doozy.us> wrote in message
news:blackhole-F34A6A.17501816122002@corp.supernews.com...
> Oy, maybe I won't stack them then. I want to avoid using guy wires. I
> wonder if the 10' and 5' together would be OK for my application?

I have some of those RS antenna masts and I wouldn't go over
10 feet without guy wires on them. I also agree with the other
fellow who said he wouldn't use their chimney mount, I had one
also and it's not much on strength. The only way to use one of
them is to guy even a 5 ft pipe on that weak of a mount.

--
'73' From KB9TMP
"The secret of life is honesty and fair dealing,
if you can fake that, you've got it made."
-Groucho Marx

>
> In article <3DFE4A63.76C3BC18@northwest.com>,
> L Caracciolo <larryc@northwest.com> wrote:
>
> > i've used one of them (10' plus a 5' section) for the cushcraft long
yagi
> > + rotator...but I also guyed the arrangement sturdily.
>
> --
> E-mail replies: change 'blackhole' to 'usenet3'

4881. Re: Follow up to Dec. 8th post about "Loop Skywire"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 17:39:20 UTC
From: rckchp@comcast.net
Message-ID: <6dc33f40.0212170939.6a27d7dc@posting.google.com>
Source record: 128919

Hi Mark,

Nope....I bought a G5RV at a hamfest years ago and after considering the layout of my property and the location of the trees on it, I never bothered to put it up for the following reasons: My property consists of one lot which has my house on it and the adjoing lot which is vacant. Desiring to keep peace with the neighbors, erecting poles or mast antenna supports is not an option.

The only trees on the vacant lot are at the far end and only about 20' high....and a dipole strung to them would have to have an off center feed....or else the feed line length would be excessive and need to be strung over the house. Since the trees at the far end are low, the antenna and feed would be lying on the roof. The loop goes (more or less) around the perimeter of the property, with the house inside the loop at one end. Since the loop can be fed at any point it makes it realatively easy to run a short as possible feed line into the shack. Cound't do that on my property with a G5RV.

Rich K2CPE

"Mark Hall" <mark.hall34@verizon.net> wrote in message
news:<YyDL9.32179$_S2.25051@nwrddc01.gnilink.net>...
> Another ham gone Loopy! Guess you wouldn't be interested in a rarely used
> G5RV would you?
>
> '73 KI4Z
>
>
> "rich a." <rckchp@comcast.net> wrote in message
> news:6dc33f40.0212161623.6f001fd8@posting.google.com...
> > This is a follow up to my original post about the "Loop Skywire"
> > antenna.
> >
> > I put it up today....it is sort of a narrow rectangle rather than a
> > square loop....I don't have a long tape measure so the size is a very
> > rough estimate.....approx 170' long by approx 50' wide (approx 440'
> > total). One corner is up approx 35'....the nearest opposite corner is
> > approx 20' up.....then it slopes down to approx 15-20 ft at the far
> > ends. Its what fits with the trees I have on my property.
> >
> > The feed point is approx 45' from the corner on one of the long legs.
> > I'm using rg8x, no balun. I didn't even try to "model" this but I just
> > worked Boliva and Argentina (Tierra del Fuego)using my K2 with
> > autotuner at 5 watts....so I'm a happy camper as I had nothing to use

> > on 20m before today. I'll be trying it on 80 and 160 tonite but may
> > have to adjust the feed line length to get a better match....the way
> > it is I only get 4.7-1 on 160, but it does 1.2-1 on 80.
> >
> > Rich K2CPE
> > K2 #1102

4882. Re: Mast limit?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 18:15:53 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <r7ednY8mCejV9GKgXTWcrg@comcast.com>
Source record: 128921

Benson,

Here is something you might want to consider. I am in the process of putting a 10 foot aluminum tube and rotator up on a chimney mount. I can not really get a whole lot of separation between the two straps; so, I picked up a universal mast mount at the RS for about $5, and am going to fasten the bottom of the tube to the roof with that, on the downslope side of the chimney. BTW the aluminum will long outlast the RS steel pipe.. I picked up a 1-1/4, 10 foot section at a local hardware store for 19 something.
Before somebody tells me I can't do this, I used to have a pair of stacked 7 element 2 meter beams on the same chimney. Lasted until the elements started to fall off. Probable be a good idea to run a ground wire up to the mast.
Tam/WB2TT
"Benson Wills" <blackhole@doozy.us> wrote in message
news:blackhole-6B9B58.16164116122002@corp.supernews.com...
> Are the Radio Shack 10' masts sturdy enough to put two on a chimney
> mount? The antenna(s) will be a stacked Par Electronics 6M loop which
> require a 12-15 foot separation.
>
> --
> E-mail replies: change 'blackhole' to 'usenet3'

4883. Re: Follow up to Dec. 8th post about "Loop Skywire"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 18:20:07 UTC
From: Mark Hall <mark.hall34@verizon.net>
Message-ID: <rVJL9.36496$4W1.16604@nwrddc02.gnilink.net>
Source record: 128922

One mistake I made when I first installed mine was using a 4:1 voltage balun (528' #10 THHN wire). It worked fine, and I was happy, although SWR wasn't the best. Somewhere I read that big loops had higher impedance. I then took out the balun, and whammo!! SWR dropped significantly. Anyway.. maybe use a choke balun if you feel the need, but I don't think it matters much. Those Aussies on 40M are Booming in the early morning.

'73 KI4Z

"rich a." <rckchp@comcast.net> wrote in message news:6dc33f40.0212161623.6f001fd8@posting.google.com...
> This is a follow up to my original post about the "Loop Skywire"
> antenna.
>
> I put it up today....it is sort of a narrow rectangle rather than a
> square loop....I don't have a long tape measure so the size is a very
> rough estimate.....approx 170' long by approx 50' wide (approx 440'
> total). One corner is up approx 35'....the nearest opposite corner is
> approx 20' up.....then it slopes down to approx 15-20 ft at the far
> ends. Its what fits with the trees I have on my property.
>
> The feed point is approx 45' from the corner on one of the long legs.
> I'm using rg8x, no balun. I didn't even try to "model" this but I just
> worked Boliva and Argentina (Tierra del Fuego)using my K2 with
> autotuner at 5 watts....so I'm a happy camper as I had nothing to use
> on 20m before today. I'll be trying it on 80 and 160 tonite but may
> have to adjust the feed line length to get a better match....the way
> it is I only get 4.7-1 on 160, but it does 1.2-1 on 80.
>
> Rich K2CPE
> K2 #1102

4884. Re: indoor antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 18:31:07 UTC
From: Richard <rickiev@hotmail.com>
Message-ID: <atnqcd$v2dv$1@ID-89515.news.dfncis.de>
Source record: 128923

My friend uses this. Its really bad. Sometime he can't hit a local
repeater while driving, but when he changes to the rubber antenna, he hits
it with no problem driving.

Rickie
(awaiting callsign)

"Daniel" <daniel@chan.net> wrote in message
news:atnabr$ndr4@imsp212.netvigator.com...
> Just saw this http://www.wavehunter.com/antongls.htm
>
> Anyone knows the performance ?
>
> Dan
>
>
>
> "Daniel" <daniel@chan.net> ���g��l��s�D
> :atn9j7$ndg1@imsp212.netvigator.com...
> > I'm living in a multi-storey building on the noisy area that why I close
> all
> > the windows all the time, and due to yhr building management concern, I
> got
> > no chance to install antenna outside the building wall.
> >
> > And now, I really want to make QSO on 2m, pls suggest the practical way
to
> > install a indoor antenna.
> >
> > I heard somebody there is a kind of glass-mounted antenna doesn't need
to
> > drill a hole on the glass and it use capacitive coupling technique to
> > transmit the signal. Does it work for handheld and/or mobile vhf rig
(max
> > 50w) ?
> >
> > Thanks for your advice in advance.
> >
> > Dan
> >
> >
>
>

4885. Loaded Log-Periodic Array for HF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 18:51:34 UTC
From: "Albert P. Belle Isle" <belleisl@CerberusSystems.com>
Message-ID: <f3suvu8pm615kot5gjjvrgml2pdf1iclle@4ax.com>
Source record: 128924

Does anyone know of an HF log-periodic that goes down at least as far as 10MHz and uses loaded, shortened dipole elements to reduce the otherwise half-of-the-largest-wavelength-sized physical dimensions?

Has anyone ever used one?

If not, has anyone made and tried such a home-brew?

(My interest is in receive-only for digital utility signals, so efficiency and power-handling are irrelevant to me. I want spatial gain/directivity, but have plenty of Rx sensitivity.)

Thanks.

Good listening,
Al
==========
Location: 42N39, 71W09
HF Antennas: 65ft TFD, 45ft T2FD, 28ft vertical, 65ft doublet
HF Receivers: Ten-Tec RX340, Ten-Tec RX320, Icom R71A
Decoders: Timewave PK-232MBX/DSP, Universal M-8000v2.1,
MMTTY, Digipan, PC-ALE, PC-HFDL, WxSat
==========

4886. Re: What is the Difference Between the Butternut HF9V & HF9VX?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 18:53:50 UTC
From: raiar@bbs.galilei.com.nospam
Message-ID: <3dff7210.258603031@news.galilei.com>
Source record: 128925

Hi Brian

I have the HF9VX, the X means eXtra 160 meter coil included in the price.

By the way, you DON'T want the 160 meter coil, it changes the performance of the whole antenna. And the bandwith on 160 is so narrow, you can't get a sideband word in edgewise.

TTUL - 73+ de Gary - KG&#65533;ZP

"Brian Igmac" <b_igmac@yahoo.com> verbositized:

>I have seen references to both model numbers... is there any real
>difference? What differences are there?
>
>Thanks
>
>

4887. New to this: Experimenting with tv antenna construction (Channel specific).

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 19:34:21 UTC
From: dgilbert@nascospg.com
Message-ID: <a235b6a6.0212171134.162aa0a1@posting.google.com>
Source record: 128926

I am thinking of making a channel specific beam antenna to pull in a distant station or two. I found a program on the net where you enter the desired frequency in mhz and it tells you the size and spacing of the elements. How much gain would an antenna such as this typically have for say channel 7? I have a roof mounted top of the line Radio shack antenna on a tower and have two stations over 100 miles away that the sudio comes in on sometimes but not the picture. They are channel 7 and 19. I thought of playing around and making a specific antenna to see what it did. Whould there be a problem with making the elements out of 1/2 inch or so emt conduit? I know the weight would be more but this would be easire to find. I can weld to if I need to.

Thanks for any help!

4888. Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 21:20:14 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFF950E.6040605@ieee.org>
Source record: 128927

When I was at Texas A&M in the late 50's, in EE I was taught that if two voltage phasors are added vectorially and the phase angle between them is less than 90 degrees, then constructive interference exists. If the phase angle between them is 90+ to 180 degrees, then destructive interference exists. Is this still taught in the EE curriculum? I think it was taught under a section titled, "Vector analysis of voltages and currents", but I didn't save my textbook.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4889. Re: What is the Difference Between the Butternut HF9V & HF9VX?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 21:39:30 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <3DFF9997.8E9919A5@shaw.ca>
Source record: 128929

"Gary V. Deutschmann, Sr." wrote:
>
"...the bandwith on 160 is so
narrow, you can't get a sideband word in edgewise."

Love it! That's what I call narrow!
--
Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my FINALLY UPDATED website at http://members.shaw.ca/finkirv/

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

4890. Stupid antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 21:46:03 UTC
From: autofuzz@lokmail.net
Message-ID: <af24dd6c.0212171346.4e49b177@posting.google.com>
Source record: 128930
Cross-posted to: rec.radio.amateur.antenna,comp.dsp

first a disclaimer: I dont know anything about antennas and stuff so don't bother with the brick bats.. I'm immune ;-)

ok so what i need to do is make a beamforming circuit, i.e. 4 element array that I want to play around with steering the beam with quite narrow beamwidths (perhaps 4-5 degs).

The problem is that before I get there I need to somehow figure out (without using the beamsteering stuff) what kind of signal chars I get in a particular environment. I plan to hook up a signal generator and spectrum analyzer on two different trolleys and move them around doing some very empirical measurements. I'm targetting the 2.4 and 5.8 Ghz range.

so what I thought of doing was to get a very directional antenna (as low beamwidths i can get) hooked up to the analyzer to sort of simulate how the even lower beamforming circuit might behave.

so here are some questions :
1. is this rational!! i.e. apart from all the complexities of doing digital beamforming, does it even make sense to use this experiment as a 'very very rough' estimate?

2. your off the shelf directional antennas have very large gains (i think the lowest i saw was a planar system with a Beamwidth of 7/7 (AZ/EL) with a 25 db gain) but my target beamformer system would have a gain of around 5dB at worst and 10dB at best. So could I add attenuation to the input of a spectrum analyzer and force it to show me a signal at the simulated (bumped down) gain. (BTW can a agilent E4404b do this?)

Thanks.
Auto.

4891. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 22:06:36 UTC
From: tdonaly@aol.com
Message-ID: <20021217170636.02811.00000203@mb-ch.aol.com>
Source record: 128931

>
>When I was at Texas A&M in the late 50's, in EE I was taught that if
>two voltage phasors are added vectorially and the phase angle between
>them is less than 90 degrees, then constructive interference exists.
>If the phase angle between them is 90+ to 180 degrees, then destructive
>interference exists. Is this still taught in the EE curriculum? I think
>it was taught under a section titled, "Vector analysis of voltages and
>currents", but I didn't save my textbook.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>

Why not do some math and figure it out?
73,
Tom Donaly, KA6RUH

4892. Re: Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 22:26:11 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3DFFA483.2567E607@cwis.net>
Source record: 128932

Yuri,
Are you adding fractals to antennas again? Go
wash your hands! Naughty boy...
'Doc

4893. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 22:32:48 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ln7vvu0oqdd4qh7avou91vrmq6nbpvm8k0@4ax.com>
Source record: 128933

On Tue, 17 Dec 2002 15:20:14 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>When I was at Texas A&M in the late 50's, in EE I was taught that if
>two voltage phasors are added vectorially and the phase angle between
>them is less than 90 degrees, then constructive interference exists.
>If the phase angle between them is 90+ to 180 degrees, then destructive
>interference exists. Is this still taught in the EE curriculum? I think
>it was taught under a section titled, "Vector analysis of voltages and
>currents", but I didn't save my textbook.

Hi Cecil,

Yes, you could have been instructed incorrectly. But only if you view
such instruction from a purist's point of view. For engineering,
that instruction was adequate to engineering tasks.

I fully expect you were taught the right way, and then immediately
following that, you were taught the shortcut (obvious in trying to
find demarcations by degrees).

The mother science of RF, Optics, has always had the answer:
"Optics," Miles Klein, John Wiley & Sons,
Chptr. 5.2 "Two-Beam Interference"
page 185 shows illustration for "Intensity Distribution" that you can
do for yourself with simple math:
I = 2 * I1 * (1 + cos(phi2 - phi1 - delta))
ave(I) = 2*I1 for an integral number of waves
where:
I: The intensity over the variation in phase (delta)
I1: The intensity of each, coherent source (being equal)
phi2: source2 phase (fixed over interval of delta)
phi1: source1 phase (fixed over interval of delta)
delta: vary phase to observe full 360ï¿½ interference pattern

This is a simpler formula to report here than the more general one
that allows for two sources of non-equal amplitude. I offer the
citation above so that you can pursue that venue if you wish. Two
copies for around $50 are available at http://www.alibris.com

73's
Richard Clark, KB7QHC

4894. Re: indoor antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 22:33:36 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3dffa642$0$90225$ba620e4c@news.skynet.be>
Source record: 128934

Depends if there are metal particle in the glass. This kind of antenna works
well with cellular, why not on amateurs bands ?

--
73 de on5mjREMOVE@skynet.be - Jacques

4895. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 22:33:41 UTC
From: sideband <KRNO8SPAMLR@cac.net>
Message-ID: <3DFF997D.7030204@cac.net>
Source record: 128928

I remember learning something similar in physics in high school, but it wasn't put quite that way.

If the frequencies of two waves are the same, and the phase angle was between 45 and 135 degrees, constructive interference occurs. If the phase angle was between 0 and 45 or between 135 and 180 degrees, then the interference was destructive. The amount of constructive or destructive interference varied with the phase angle, more constructive the closer to 90 degrees, and more destructive closer to 180 degrees.

Of course, my memory might be off a bit.

de KR8LR, Chris

OC_CAM's Razor wrote:
> When I was at Texas A&M in the late 50's, in EE I was taught that if
> two voltage phasors are added vectorially and the phase angle between
> them is less than 90 degrees, then constructive interference exists.
> If the phase angle between them is 90+ to 180 degrees, then destructive
> interference exists. Is this still taught in the EE curriculum? I think
> it was taught under a section titled, "Vector analysis of voltages and
> currents", but I didn't save my textbook.

4896. Re: Stupid antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 22:49:12 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <SdydnQ9D0oVVM2KgXTWc2Q@crocker.com>
Source record: 128936
Cross-posted to: rec.radio.amateur.antenna,comp.dsp

i am trying to find a simple reference that will show me that what you are thinking of is not realistic. unfortunately the math just gets too deep too quick, but basically i don't think you will be able to generate a beamwidth of 4-5 degrees with only 4 elements.

on the other hand, making measurements of antenna patterns is not a trivial task. just running a couple antennas around on trolley's leaves too many variables and sources of error. you have to worry about not only the antennas you are using for measurements but also the environment all around you. this is why serious design tests are done in anechoic chambers, and there have been endless discussions on here about how to measure antennas in real world environments. reflections from the ground, buildings, the trolleys themselves, the cables connecting and powering them, etc, etc, etc all enter into the equation, not to mention leakage from cables and equipment cases and interference from other transmitters either intentional or accidental.

"Autofuzz" <autofuzz@lokmail.net> wrote in message
news:af24dd6c.0212171346.4e49b177@posting.google.com...
> first a disclaimer: I dont know anything about antennas and stuff so
> don't bother with the brick bats.. I'm immune ;-)
>
> ok so what i need to do is make a beamforming circuit, i.e. 4 element
> array that I want to play around with steering the beam with quite
> narrow beamwidths (perhaps 4-5 degs).
>
> The problem is that before I get there I need to somehow figure out
> (without using the beamsteering stuff) what kind of signal chars I get
> in a particular environment. I plan to hook up a signal generator and
> spectrum analyzer on two different trolleys and move them around doing
> some very empirical measurements. I'm targetting the 2.4 and 5.8 Ghz
> range.
>
> so what I thought of doing was to get a very directional antenna (as
> low beamwidths i can get) hooked up to the analyzer to sort of
> simulate how the even lower beamforming circuit might behave.
>
> so here are some questions :
> 1. is this rational!! i.e. apart from all the complexities of doing
> digital beamforming, does it even make sense to use this experiment as
> a 'very very rough' estimate?
>
> 2. your off the shelf directional antennas have very large gains (i
> think the lowest i saw was a planar system with a Beamwidth of 7/7

> (AZ/EL) with a 25 db gain) but my target beamformer system would have
> a gain of around 5dB at worst and 10dB at best. So could I add
> attenuation to the input of a spectrum analyzer and force it to show
> me a signal at the simulated (bumped down) gain. (BTW can a agilent
> E4404b do this?)
>
> Thanks.
> Auto.

4897. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 23:01:29 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <atoacb$q96$1@slb1.atl.mindspring.net>
Source record: 128935

Cecil:

Hey, as The Bard once said, "a rose by any other name..."

It makes no difference what the sum is called, as long as you can compute
the vector [phasor] sum.

All that is important is the resultant not what you call it.

By the way, speaking of terminology...

I don't believe that mathematicians actually recognize the term "phasor",
rather it is a new terminology
simply "invented" by some electrical engineer [I forget his name now.] many
years ago who apparently
thought that if complex numbers were renamed, they might be easier to
understand.

Not!

Complex numbers, and their calculus have a long and venerable history going
all the way back
to J. F. Gauss and don't need no modern terminology.

Unless, heh, heh... that is... you have a problem with the term "imaginary"
as opposed to "real"!

Ever design a circuit with an imaginary resistor?

--
Peter K1PO
Indialantic By-the-Sea, FL

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DFF950E.6040605@ieee.org...
> When I was at Texas A&M in the late 50's, in EE I was taught that if
> two voltage phasors are added vectorially and the phase angle between
> them is less than 90 degrees, then constructive interference exists.
> If the phase angle between them is 90+ to 180 degrees, then destructive
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> it was taught under a section titled, "Vector analysis of voltages and
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> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----

> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4898. Small antenna for 40Mhz hand-portable

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 23:11:03 UTC
From: orion.osiris@virgin.net
Message-ID: <4c30c8fc.0212171511.13d7219f@posting.google.com>
Source record: 128937
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Hi,

I'm getting rather poor signal reliability using an ordinary
telescopic
whip for r/c purposes. I was thinking about going in for something
tuned,
but a full half-wave dipole for example would be far too big and
cumbersome. Does anyone know how I could go about making up my own
ariel specifically for this frequency? I was thinking maybe a 'rubber
duck' or something similar
that's mostly coiled up? Anyway,
something small and compact. Any suggestions please!

Thanks
p.

4899. atlc - Arbitrary Transmission Line Calculator

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 23:14:05 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-1712021514050001@bni030qny8kc.bc.hsia.telus.net>
Source record: 128938

Today I read an interesting post in the newsgroup comp.sys.mac.apps. Now
don't just skip to the next message immediately, because the software
described in the post is UNIX software and not classical Mac software.
Conceivably this may be of use to some readers of rraa.

David, ex-W8EZE

Here is the post:

> Path:
>
news.sfu.ca!cyclone.bc.net!newsfeed.media.kyoto-u.ac.jp!newsfeed.icl.net!newsfeed.fjserv.n
et!feed.news.nacamar.de!newsfeed01.sul.t-online.de!t-online.de!newspeer1-gui.server.ntli.n
et!ntli.net!newsfep1-win.server.ntli.net.POSTED!53ab2750!not-for-mail
> Message-ID: <3DFF1256.67DFF577@ntlworld.com>
> From: "Dr. David Kirkby" <drkirkby@ntlworld.com>
> X-Mailer: Mozilla 4.78 [en] (X11; U; SunOS 5.9 sun4u)
> X-Accept-Language: en
> MIME-Version: 1.0
> Newsgroups:
>
sci.electronics.design,comp.sys.sun.apps,comp.sys.hp.apps,comp.sys.mac.apps,lin.dev.apps
> Subject: Software of interest to RF engineers.
> Content-Type: text/plain; charset=us-ascii
> Content-Transfer-Encoding: 7bit
> Lines: 60
> Date: Tue, 17 Dec 2002 12:02:30 +0000
> NNTP-Posting-Host: 62.253.80.25
> X-Complaints-To: abuse@ntlworld.com
> X-Trace: newsfep1-win.server.ntli.net 1040126551 62.253.80.25 (Tue, 17 Dec
> 2002 12:02:31 GMT)
> NNTP-Posting-Date: Tue, 17 Dec 2002 12:02:31 GMT
> Organization: ntlworld News Service
> Xref: news.sfu.ca sci.electronics.design:328512 comp.sys.sun.apps:26103
> comp.sys.hp.apps:15480 comp.sys.mac.apps:383029
>
> The following may be of interest to professional RF engineers,
> students and radio amateurs.
>
> I have in the last few days placed on the web the latest version of my
> free/open-source programme suite 'atlc' which was originally designed
> for finding the impedance of RF transmission lines (like coax) but
> with an arbitrary cross-section and arbitrary number of different
> dielectrics. The errors have always been less than 0.5% for any
> structure I've analysed that has a known exact analytical solution.

>
> About 7 months ago I extended 'atlc' somewhat to have the ability to
> analyse directional couplers (giving the odd and even mode
> impedance's) of an arbitrary cross section and number of different
> dielectric. In this case, the errors creep up a bit, to a maximum of
> 0.8% for the one structure I've compared it against that has an exact
> analytical solution.
>
> It has now been extended the suite of programs 'atlc' to a include a
> program 'design_coupler' which can *design* you a directional coupler
> (this time of only one particular cross section), given the frequency,
> coupling factor and optionally the length of the coupler (otherwise
> the default length is a quarter wave at the centre frequency).
>
> The program is written primarily for a Unix system, not Windoze, so
> while it was developed on a Sun workstation under Solaris, it has been
> checked on a few GNU/Linux PCs, a Dec Alpha, a Sun running GNU/Linux,
> a Macintosh running OSX. i.e. it should run under any Unix system.
>
> There is no graphical user interface, so for analysing arbitrary cross
> sections you need to use a graphics package (Photoshop, Gimp,
> CorelDraw etc) to draw your cross section, save it as a bitmap, then
> run 'atlc' to analyse it. There are some programs for rapidly
> generating certain cross sections, such as one rectangular conductor
> inside another, coax (since I could quickly test a case for which
> there's an exact solution) and several others.
>
> The main analysis program 'atlc' is CPU intensive and hence has been
> developed to work with multiple processors if available, although
> support for multiple processors has not been checked much on any
> system other that Sun's Solaris operating system.
>
> The C source code is freely available issue under the GNU public
> licence.
>
> If interested, see the homepage at:
>
> http://atlc.sourceforge.net/
>
> IF ANYONE WITH A SYSTEM (OTHER THAN A SUN) WITH MULTIPLE CPUS, CAN LET
> ME KNOW HOW IT WORKS I'D BE INTERESTED.
>
> --
> Dr. David Kirkby,
> Senior Research Fellow,
> Department of Medical Physics,
> University College London,
> 11-20 Capper St, London, WC1E 6JA.
> Tel: 020 7679 6408 Fax: 020 7679 6269
> Internal telephone: ext 46408

> e-mail davek@medphys.ucl.ac.uk

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

4900. Re: Stupid antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 23:22:52 UTC
From: Fred Marshall <fmarshall@acm.org>
Message-ID: <KeOL9.1870$Pm2.133977@feed2.centurytel.net>
Source record: 128939
Cross-posted to: rec.radio.amateur.antenna,comp.dsp

"Autofuzz" <autofuzz@lokmail.net> wrote in message
news:af24dd6c.0212171346.4e49b177@posting.google.com...
> first a disclaimer: I dont know anything about antennas and stuff so
> don't bother with the brick bats.. I'm immune ;-)
>
> ok so what i need to do is make a beamforming circuit, i.e. 4 element
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> narrow beamwidths (perhaps 4-5 degs).
>
> The problem is that before I get there I need to somehow figure out
> (without using the beamsteering stuff) what kind of signal chars I get
> in a particular environment. I plan to hook up a signal generator and
> spectrum analyzer on two different trolleys and move them around doing
> some very empirical measurements. I'm targetting the 2.4 and 5.8 Ghz
> range.
>
> so what I thought of doing was to get a very directional antenna (as
> low beamwidths i can get) hooked up to the analyzer to sort of
> simulate how the even lower beamforming circuit might behave.
>
> so here are some questions :
> 1. is this rational!! i.e. apart from all the complexities of doing
> digital beamforming, does it even make sense to use this experiment as
> a 'very very rough' estimate?
>
> 2. your off the shelf directional antennas have very large gains (i
> think the lowest i saw was a planar system with a Beamwidth of 7/7
> (AZ/EL) with a 25 db gain) but my target beamformer system would have
> a gain of around 5dB at worst and 10dB at best. So could I add
> attenuation to the input of a spectrum analyzer and force it to show
> me a signal at the simulated (bumped down) gain. (BTW can a agilent
> E4404b do this?)

Auto,

I didn't raally follow all this very well but ....

If the "elements" you're talking about are omnidirectional, then 4 elements
won't get you much of a narrow beam.

If the elements you're talking about are highly directional, then
beamsteering may not be possible with signal processing because the beam
patterns are already narrow. (Adding zeros to zeros still yields zeros).
You would have to mechanically steer them first. If you rotate them

individually, then you can use signal processing to add them in phase. If you have them on a line and rotate the line so they remain aligned, then you don't have to do the signal processing to realign them.

Fred

4901. Re: Mast limit?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 23:39:29 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <76noXCBxW7$9EAxi@ifwtech.co.uk>
Source record: 128940

Richard Clark wrote:
>On Mon, 16 Dec 2002 17:50:18 -0500, Benson Wills <blackhole@doozy.us>
>wrote:
>
>>Oy, maybe I won't stack them then. I want to avoid using guy wires. I
>>wonder if the 10' and 5' together would be OK for my application?
>>
>Hi Benson,
>
>Yup, should do the job real good if you want to pull down a chimney.
>Even at five feet.
>
>A chimney's strength is entirely in the up/down direction, and much
>less in the side/side direction.

You should assume that the mast and antenna are trying to lever off the top part of your chimney, above the level where the mast is lashed on. Remember that chimneys are only designed to support themselves. Some are so weak that the brickwork starts to move when you first tighten the antenna lashing.

>An antenna + mast under wind load is
>significantly side/side strength challenging. Guying reduces that
>load; but remember, most chimneys fall through roofs, not down them
>(the downside to that up/down strength).

Chimney-mounted masts seem like a good idea at first, but one of the less attractive features is the possibility of a block of brickwork falling through your bedroom roof.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

4902. Re: Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 23:49:48 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <8qcpjECcg7$9EAxa@ifwtech.co.uk>
Source record: 128941

Yuri Blanarovich wrote:
>>
>>On 17 Dec 2002 15:02:05 GMT, k3bu@aol.com (Yuri Blanarovich) wrote:
>>
>>[much deleted]
>>
>>|Again, main lobe can have different angle than max rear lobes, the true spec
>>|would specify those lobes, which could change with changing antenna's height
>>|over real ground.
>>
>>
>>How can this be? The elevation pattern is developed from the
>>constructive and destructive interferance between the direct and
>>earth-reflected radiation.
>>
>>To the rear, there may be less radiation but isn't it affected by the
>>reflections from earth the same way?
>>
>>Can you show an example where what you say occurs?
>>
>>73,
>>
>>Wes N7WS
>
>
>Soitenly!
>
>I have for example vertical 4 Square design which in EZNEC shows the following
>properties (in 0 - 180 deg vertical plane):
>
>Front lobe at 10 deg 10.32 dBi
>Back lobe
>at 120 deg -15.5 dBi
>dip at 148 deg -22.5 dBi
>at 172 deg. -16.6 dBi
>sooo, there is one big front lobe with max at 10 deg.
>and two back lobes with minimum between them at 148 and peaks at 120 and 172
>deg.
>
>I can supply the EZNEC file (against non-disclosure agreement :-)

Hardly necessary - ON4UN's 'Low Band DXing' book gives many example of
vertical arrays with a reasonable low-angle front lobe, but an
embarrassing high-angle backlobe which completely messes up the ability

to reject short-skip signals off the back.

The same problem arises in moonbounce yagi arrays, where the pickup of ground noise occurs across the whole "rear panorama" when the array is pointed above the horizon. Strict front/back ratio can often be misleading, because the reality may be a large rearward lobe with just a small dimple at 180deg.

Some designers quote a more general average "front/rear" ratio, for anything beyond +/-90deg.

>I would explain that in real life/earth situations we are dealing with
>reflections and interaction between the elements, ground, etc. Otherwise blame
>W7EL for the program producing false results :-)

More like confronting you with uncomfortable realities.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

4903. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-17 23:58:17 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFFBA19.2070707@ieee.org>
Source record: 128942

Tdonaly wrote:
>>When I was at Texas A&M in the late 50's, in EE I was taught that if
>>two voltage phasors are added vectorially and the phase angle between
>>them is less than 90 degrees, then constructive interference exists.
>>If the phase angle between them is 90+ to 180 degrees, then destructive
>>interference exists. Is this still taught in the EE curriculum? I think
>>it was taught under a section titled, "Vector analysis of voltages and
>>currents", but I didn't save my textbook.
>
> Why not do some math and figure it out?

Oh, it's not me who didn't do the math, Tom.
--
cheers, CAM http://www.qsl.net/w5dxp

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4904. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 00:11:24 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFFBD2C.5060804@ieee.org>
Source record: 128943

Peter O. Brackett wrote:
> It makes no difference what the sum is called, as long as you can compute
> the vector [phasor] sum.
>
> All that is important is the resultant not what you call it.

What is important to this *particular* discussion is the energy. Can the sum of two RF voltages ever fulfill the need for additional energy without constructive interference?

> I don't believe that mathematicians actually recognize the term "phasor",
> rather it is a new terminology
> simply "invented" by some electrical engineer [I forget his name now.] many
> years ago who apparently
> thought that if complex numbers were renamed, they might be easier to
> understand.
>
> Not!

Vectors can be three-dimensional. Phasors are two-dimensional. Didn't you ever read the book titled, "3-D Vectors in Flatland". :-)

> Ever design a circuit with an imaginary resistor?

Nope, but I've designed a circuit with a lossless resistance. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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4905. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 00:16:26 UTC
From: Gary <dodogrp@dodo.com.au>
Message-ID: <3dffbe54@news.comindico.com.au>
Source record: 128944

And it doesn't have to hit ANY antenna to do damage. A friend of mine was in a firetower for the local Country Fire Brigade, he is a radio enthusiast and had a scanner up there with him at the time. Not sure what antenna he had but it was either a discone or a vertical of some sort. it was mounted on a pole fixed to the metal tower leg which was pretty well grounded. Lightning approaching, so he unplugged the rg58 and sat it on the bench. Lightning was a LONG way off and going around him but not long after he spotted the lightning he heard a random ticking noise. Upon investigation he found that a spark was jumping from the centre conductor pin to the "earth" of the connector!! Buildup of static in the air. Thats why you hear lightning arrestors "buzz" when there is a storm around.

Gary
"J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote in message
news:EcQK9.8470$281.1826025@news20.bellglobal.com...
> "Bob Miller"
> > Not sure why you want to disconnect your antenna.
> > Since it is attic mounted, there's small chance lightning
> > will hit it.
>
> Lightning doesn't have to "hit" a random wire antenna to induce fairly
large
> voltages. I assume that this is not a controversial statement.
>
>

4906. Re: Snake Antenna for 160 meters ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 00:55:51 UTC
From: rckchp@comcast.net
Message-ID: <6dc33f40.0212171655.58a95a71@posting.google.com>
Source record: 128945

I agree with "Doc". About a month or so ago I first heard of the
"Snake" antenna via an on air discussion between two hams.

In that qso one ham was adamant that it was a great all band antenna,
not only for recieving but transmitting as well. He gave a detailed
description on how to make one : 136' of any type coax, the inner
conductor and outer braid soldered together at the far end (and then
weather sealed), the outer braid opened (cut) right at the PL259
connector at the rig end. Stretched out in as straight a line as
possible but that wasn't critical could be bent (snaked!) around as
necessary to fit on your property.

I had just aquired a 500' spool of RG8X so I immediately made one and
tried it. It did work OK on recieving on 160, 80 & 40 meters.....but
no better or less noisy than my 40 meter dipole. Wasn't worth a fart
in a windstorm for transmitting. Just my experience.....your milage
may vary......
\
Rich K2CPE

'Doc <w5lz@cwis.net> wrote in message news:<3DFE9233.624BFC81@cwis.net>...
> N1RZB,
> They work fairly well as a receiving antenna, but
> not well at all for transmitting. QST had an artical
> about them a number of years ago...
> 'Doc

4907. Why a Light Bulb in Series With an Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 00:56:12 UTC
From: Al <ABurzynski@nojunk.satx.rr.com>
Message-ID: <MIPL9.4988$6H6.209912@twister.austin.rr.com>
Source record: 128946

My Icom 745 transceiver has a separate antenna input for receive only of the 100kHz to 1600kHz range. The antenna input first passes through a light bulb (DS1, not a neon bulb), then the other end of the light bulb connects to two resistors, a 10 ohm to ground and a 47 ohm to a low pass filter. This light bulb and two resistors make up a 20 db attenuator, according to the Icom manual.

I have two questions regarding this attenuator. First why a light bulb? A form of variable resistor? Second, can I remove this circuit and just connect the antenna directly to the low pass filter? My goal is to improve reception in the 200kHz to 500kHz range. Ideally I would place a switch at this location in case the attenuator is really needed for LF or AM-band reception.

Thank you.
Al
KA5JGV

4908. Re: Would a Hexbeam be better than this??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 01:03:09 UTC
From: rckchp@comcast.net
Message-ID: <6dc33f40.0212171703.90dc110@posting.google.com>
Source record: 128948

Where do you get them? How much do they cost? Need lots more info
before you can evaluate it versus the Hexbeam.

bmg <ll@jj.com> wrote in message news:<3DFE22F6.F10A99D4@jj.com>...
> http://www.swschwedt.de/kunden/dm2ble/mfb23s.jpg

4909. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 01:07:23 UTC
From: tdonaly@aol.com
Message-ID: <20021217200723.23215.00000126@mb-me.aol.com>
Source record: 128949

Cecil wrote,
>
>> Why not do some math and figure it out?
>
>Oh, it's not me who didn't do the math, Tom.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>

Oh, I see. You want to snare someone into agreeing
with you so you can wring an admission from them
that they're wrong. Well, good luck.
73,
Tom Donaly, KA6RUH

4910. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 01:09:28 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <3DFFCAC8.B27D28E8@uci.edu>
Source record: 128950

Hi Cecil,

I rely on the interference (superposition) of two monochromatic waves with their electric vectors perpendicular to the direction of propagation and a 60 degree relative phase angle in order to power my linear amplifier. In general these days it seems the use of the terms distructive and constructive in connection with interference have fallen out of use - perhaps as misnomers.

73 de AC6XG

OC_CAM's Razor wrote:
>
> When I was at Texas A&M in the late 50's, in EE I was taught that if
> two voltage phasors are added vectorially and the phase angle between
> them is less than 90 degrees, then constructive interference exists.
> If the phase angle between them is 90+ to 180 degrees, then destructive
> interference exists. Is this still taught in the EE curriculum? I think
> it was taught under a section titled, "Vector analysis of voltages and
> currents", but I didn't save my textbook.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
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4911. Re: Mast limit?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 01:13:22 UTC
From: L Caracciolo <larryc@northwest.com>
Message-ID: <3DFFCBB2.9D5966D7@northwest.com>
Source record: 128947

"I also agree with the other fellow who said he wouldn't use their chimney mount, I had one also and it's not much on strength."

Instead of those RS chimney mounts, I built a solid wrap-around enclosure of the chimney using two-layers of 3/4 exterior grade plywood. This used the entire chimney structure as a support, not depending on a small amount of steel bracketing ("chinmey mount"). I affixed the mast to the plywood enclosure, using four deep U-bolts. I sat the mast structure onto a 4x4 block with a 1-3/4" dia hole in it, about 1" deep. THis block of wood kept the mast from driving into the roof, as well as holding the bottom of the mast "in place."

Over all cost was about $100 in plywood, 2x4's, screws, and primer paint. If you're interested, I can quick scan a drawing of the structure and send it out.

======
KB9TMP wrote:

> "Benson Wills" <blackhole@doozy.us> wrote in message
> news:blackhole-F34A6A.17501816122002@corp.supernews.com...
> > Oy, maybe I won't stack them then. I want to avoid using guy wires. I
> > wonder if the 10' and 5' together would be OK for my application?
>
> I have some of those RS antenna masts and I wouldn't go over
> 10 feet without guy wires on them. I also agree with the other
> fellow who said he wouldn't use their chimney mount, I had one
> also and it's not much on strength. The only way to use one of
> them is to guy even a 5 ft pipe on that weak of a mount.
>
> --
> '73' From KB9TMP
> "The secret of life is honesty and fair dealing,
> if you can fake that, you've got it made."
> -Groucho Marx
>
> >
> > In article <3DFE4A63.76C3BC18@northwest.com>,
> > L Caracciolo <larryc@northwest.com> wrote:
> >
> > > i've used one of them (10' plus a 5' section) for the cushcraft long
> yagi
> > > + rotator...but I also guyed the arrangement sturdily.
> >
> > --

> > E-mail replies: change 'blackhole' to 'usenet3'

4912. Re: Why a Light Bulb in Series With an Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 01:30:38 UTC
From: Jack Smith <jsmith@mnsinc.com>
Message-ID: <vqjvvu0a7o6qufadmhhjraku2f2hq78bc5@4ax.com>
Source record: 128951

On Wed, 18 Dec 2002 00:56:12 GMT, "Al" <ABurzynski@nojunk.satx.rr.com>
wrote:

>My Icom 745 transceiver has a separate antenna input for receive only of the
>100kHz to 1600kHz range. The antenna input first passes through a light bulb
>(DS1, not a neon bulb), then the other end of the light bulb connects to two
>resistors, a 10 ohm to ground and a 47 ohm to a low pass filter. This light
>bulb and two resistors make up a 20 db attenuator, according to the Icom
>manual.
>
>I have two questions regarding this attenuator. First why a light bulb? A
>form of variable resistor? Second, can I remove this circuit and just
>connect the antenna directly to the low pass filter? My goal is to improve
>reception in the 200kHz to 500kHz range. Ideally I would place a switch at
>this location in case the attenuator is really needed for LF or AM-band
>reception.
>
>Thank you.
>Al
>KA5JGV

The light bulb is a fuse and protects the front end of the receiver.

Jack K8ZOA
>

4913. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 01:55:29 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFFD591.20206@ieee.org>
Source record: 128952

Gary wrote:
> And it doesn't have to hit ANY antenna to do damage. A friend of mine was in
> a firetower for the local Country Fire Brigade, he is a radio enthusiast and
> had a scanner up there with him at the time. Not sure what antenna he had
> but it was either a discone or a vertical of some sort. it was mounted on a
> pole fixed to the metal tower leg which was pretty well grounded. Lightning
> approaching, so he unplugged the rg58 and sat it on the bench. Lightning was
> a LONG way off and going around him but not long after he spotted the
> lightning he heard a random ticking noise. Upon investigation he found that
> a spark was jumping from the centre conductor pin to the "earth" of the
> connector!! Buildup of static in the air. Thats why you hear lightning
> arrestors "buzz" when there is a storm around.

One of the educational channels told of a case where a woman was hit by
lightning out of a clear blue sky. The bolt originated in a cloud miles
away behind a mountain range.

I often hear my ladder-line length selector snap, crackle, and pop a
few seconds before I hear the thunder. That means the main lightning
strike was about a mile away yet caused arcing at my house.

I have a five foot tall live oak tree in my front yard. It was hit by
lightning but not by the main bolt. It has a split in the trunk all the
way to the ground and half of the upper part is dead without leaves.
There was a two foot diameter circle on the ground where the St. Augustine
grass died. I figure any tree that survived a lightning strike doesn't
deserve to be dug up and thrown away just because it is half dead.
--
cheers, CAM http://www.qsl.net/w5dxp

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4914. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 02:04:37 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFFD7B5.6080208@ieee.org>
Source record: 128953

Tdonaly wrote:
> Cecil wrote,
>
>>>Why not do some math and figure it out?
>>
>>Oh, it's not me who didn't do the math, Tom.
>
> Oh, I see. You want to snare someone into agreeing
> with you so you can wring an admission from them
> that they're wrong. Well, good luck.

Not exactly. I just wondered if they teach stuff like that
anymore in the EE curriculum. You see, we didn't "superpose"
voltages back in the 1950's. :-) We just added them vectorially
and accepted the resulting constructive or destructive interference.

Modern day gurus superpose those waves allegedly without
interference. Times sure change in 50 years.
--
cheers, CAM http://www.qsl.net/w5dxp

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4915. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 02:09:40 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <9db=PTxylQjO3XJWTU1eFRH2iPni@4ax.com>
Source record: 128955

kc5cqa <kc5cqa@devtex.net> wrote:

>Noticed the car dealers here are using lighter than air gas balloons
>for attracting attention to their autos. One in particular caught my
>attention. line with small flags then balloon, and then line with
>flags continuing up to next baloon and then on and on for several
>balloons. Line topped out at about around 200 feet. Now for my
>question. When I was a kid in the 1950's my dad had a recorder, but
>it was wire, being a kid, I got ''into it''. I remember it was very
>hard to break, and very thin. Ok with all that said,,, what would be
>involved in making a two meter antenna using these 'odds and ends'????
>Would there be a website that 'explories more of these ideas???
>would apprecite any ideas and input. thanks cl 73

I wouldn't do it, myself. If the thing comes down, and the feedline or tether wire drapes over power lines, somebody could get electrocuted. You could use non-metallic kite string for your tether. But you're going to need a metallic feedline to the 2 meter antenna on the balloon.

Also, isn't this how Ben Franklin discovered electricity? :-)

Bob
k5qwg

4916. Re: Why a Light Bulb in Series With an Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 02:12:10 UTC
From: dplatt@radagast.org
Message-ID: <uvvmbqhujote78@corp.supernews.com>
Source record: 128954

>My Icom 745 transceiver has a separate antenna input for receive only of the
>100kHz to 1600kHz range. The antenna input first passes through a light bulb
>(DS1, not a neon bulb), then the other end of the light bulb connects to two
>resistors, a 10 ohm to ground and a 47 ohm to a low pass filter. This light
>bulb and two resistors make up a 20 db attenuator, according to the Icom
>manual.
>
>I have two questions regarding this attenuator. First why a light bulb? A
>form of variable resistor?

Probably so. I would guess that it's there as a sort of dynamic limiter, to provide the downstream components (e.g. the 10- and 47-ohm resistors) from stress if the receive-only antenna is subjected to very high levels of RF.

This might occur, for example, if you have a receive-only antenna on this input, and a transmit/receive antenna located somewhere nearby. When you key up your transmitter, the proximity of the receive antenna could result in a lot of power coupling back into the rig. In the absence of the light bulb, almost all of this power would be dissipated in the 10- and 47-ohm resistors and in the LPF, and they might overheat.

Since the light bulb filament has a high temperature coefficient of resistance, the bulb would act as a limiter in these cases. If the receive antenna is hit with a lot of power, most of it will end up being dissipated in the light bulb (since it's apparently the high side of the 20 dB attenuator), the filament will heat up, the resistance will increase, the attenuation ratio will increase, and the power input from the antenna will probably decrease to some extent as well. It's a nice negative-feedback system.

> Second, can I remove this circuit and just
>connect the antenna directly to the low pass filter? My goal is to improve
>reception in the 200kHz to 500kHz range. Ideally I would place a switch at
>this location in case the attenuator is really needed for LF or AM-band
>reception.

You could, I suppose. My guess is that it wouldn't help your reception all that much. As I recall, signal quality in HF and below tends to be limited by atmospheric noise and QRM, rather than by the receiver's own self-noise. If you take out the 20 dB attenuation, you'll boost the signal you want, but you'll also boost the QRM and QRN by the same ratio, and I suspect that you won't hear much more than you do now.

You might also be at risk of having the LPF blown out if you key up
the transmitter when the attenuation switch is set to "bypass".
Unless you're on far better terms than I am with Finagle (and with
Murphy his prophet) I'd advise against it.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4917. Re: Loaded Log-Periodic Array for HF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 02:16:29 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <1fmvvu4ndb7h3t29b9tj6pbfek1qjic4ad@4ax.com>
Source record: 128956

On Tue, 17 Dec 2002 18:51:34 GMT, Albert P. Belle Isle
<belleisl@CerberusSystems.com> wrote:

|Does anyone know of an HF log-periodic that goes down at least as far
|as 10MHz and uses loaded, shortened dipole elements to reduce the
|otherwise half-of-the-largest-wavelength-sized physical dimensions?
|
|Has anyone ever used one?

Not me.
|
|If not, has anyone made and tried such a home-brew?

No again, but I have seen them but they were military grade stuff and
still quite large.

The problem is that you can shrink the element length, but loading the
boom is another story <g>.

4918. Re: New to this: Experimenting with tv antenna construction (Channel specific).

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 02:18:17 UTC
From: Wes Stewart <n7ws@#arrl.net>
Message-ID: <8mmvvu4irq4gun61aut8dotemo0rp7abil@4ax.com>
Source record: 128957

On 17 Dec 2002 11:34:21 -0800, dgilbert@nascospg.com (Don) wrote:
[snip]

|Would there be a problem with making the
|elements out of 1/2 inch or so emt conduit?

Asked and answered.

4919. Re: Why a Light Bulb in Series With an Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 02:33:49 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <atomqe$g74$1@slb9.atl.mindspring.net>
Source record: 128958

Dave:

[snip]

> Since the light bulb filament has a high temperature coefficient of
> resistance, the bulb would act as a limiter in these cases. If the
> receive antenna is hit with a lot of power, most of it will end up
> being dissipated in the light bulb (since it's apparently the high
> side of the 20 dB attenuator), the filament will heat up, the
> resistance will increase, the attenuation ratio will increase, and the
> power input from the antenna will probably decrease to some extent as
> well. It's a nice negative-feedback system.
[snip]

Back in the "old days", that's the way we all made T/R switches for QSK.

The "light bulb T/R QSK switch" was a widely used technique back when
everyone used separate transmitters and receivers rather than modern solid
state transceivers. It worked really well, especially with vacuum tube
front end
receivers which were robust in the presence of big signals.

The T/R QSK switch was nothing more than an appropriately chosen
incandescant
light bulb.

The bulb was simply connected between the transmitter antenna and the
receiver input, and placed above the operating desk where it could be
seen. On receive the bulb's low resistance allowed the receiver to
get the full antenna signal. When the transmitter is keyed, the bulb lit up
brightly and, because of the high tempco of resistance of tungston, the bulb
rapidly went into a very high resistance state, thus protecting the receiver
input and strongly attenuating the received signal.

A side benefit was that when the bulb illuminated upon key down, the bulb
provided an instataneous "on-air" indication.

The design problem was that one had to choose the proper bulb, dependent
upon the transmit power and the speed of T/R change over desired.

Altogether a very elegant design..

--
Peter K1PO
Indialantic By-the-Sea, FL

4920. Re: All Band Wire Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 02:45:19 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <o2RL9.9320$7b3.5239@news.bellsouth.net>
Source record: 128959

Cam,

On the 4, 8 and 16 foot feedline, is it ok to coil these r do then need to
be in one large loop?

TIA

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DF78610.1050309@ieee.org...
> RickWiles1 wrote:
> > During the spring of 2003 I hope to go to Haiti and wish to take along
the
> > minimal amout of radio equiptment so is they a simple wire antenna that
can
> > work several bands without a tuner? The bands I hope to work are 75, 20,
17,
> > and maybe 15 meters. I may bring a tunner but the lest amount of stuff I
have
> > to take along the happier I'll be.
>
> I run my 130 ft dipole on all those frequencies without a tuner.
> I vary the length of the 450 ohm ladder-line to achieve a match.
> On those bands, here are the ladder-line lengths necessary for
> me to achieve a match:
>
> 3.8 MHz - 99 ft., 14.2 MHz - 105 ft., 18.14 MHz - 95 ft., 21.3 MHz - 88
ft.
>
> Your antenna would not tune exactly the same as mine but you can tune it
> before you leave on your trip. With a basic ladder-line length tuned to
> 21.3 MHz, I could have three extensions of 7 ft, 4 ft, and 6 ft which
> I add to achieve a match. Banana plugs/sockets work great for these
> extensions.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>

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4921. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 02:47:40 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <atonkejbv1@slb6.atl.mindspring.net>
Source record: 128960

Cecil:

[snip]
> What is important to this *particular* discussion is the energy. Can the
> sum of two RF voltages ever fulfill the need for additional energy without
> constructive interference?
[snip]

Hmmmm... well.

It seems that you are somewhat confused. :-)

When I check with my basic Physics references I find that voltage *is*
actually energy.

And I find that voltage is not a fundamental unit, and for that matter
neither is energy.

Energy is apparently expressed in terms of units called Joules which are
derived from
the fundamental units of force and distance [Newton-meters].

The units of voltage are indeed expressed in terms of units of energy per
unit of charge.
So there is your answer...

One Volt is exactly one Joule [or one Newton-meter of energy] per Coloumb
[of charge].

Thus, if you *combine* charges together [Heh, heh... is that algebraic
addition? Or is that
vector addition? Or is that phasor addition? I dunno!] you should always
get the total
energy of all the charges as the algebraic sum of the energies of the
individual charges.

No?

What?

--
Peter K1PO
Indialantic By-the-Sea, FL

4922. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 02:54:50 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <atoo1q$lh1$0@208.206.142.79>
Source record: 128961

Both the old Gates rigs I looked in on were pretty rugged and required little except an occasional tube. One was a BC1-J and the other an H, and both ran a pair of 833A's in parallel in the final modulated by another pair using a huge choke for the modulating reactor..

But once one of them tossed a real curve, one that I've never encountered before nor since. The station manager called and said the transmitter was off frequency. That was a problem not seen before, in fact the old rigs were very frequency stable. Sure enough, the frequency meter -normally centered- was on the right peg. A quick look under the hood revealed the exciter/driver tube, a 6146, and all the other small associated tubes on that deck were running red hot, their plates glowing brightly. Checking the 800 volt supply, it pegged the 1KV scale on the Simpson. Hmmm, higher than normal voltage? How could that be?

A quick look at the power supply schematic revealed what HAD to be the problem. The power supply used a dual section pi filter with inductive output. I recalled that an inductive output filter supplies average voltage with better regulation, while a capacitive output filter supplies RMS, or 1.414 times average voltage. There was clearly no other way the voltage could have gotten so high - the output filter choke had to have shorted across it's winding, instead of shorting to ground as almost always happened when one failed. That would convert the supply from an inductive output to capacitive output mode. Installing a spare choke brought everything back to normal, the tubes running normal color and the frequency meter back off the peg to center scale.

That remains as the only time I ever saw a HV filter choke fail in that mode.

I considered that case to be a pretty good testament to the ruggedness of the Gates transmitters. Not every device one encounters would hold up under >40% overvoltage and return to normal operation unscathed after the problem was corrected.

Dick W0EX

Bill Ogden wrote:

> > Chuckle. Reminds me of my first day on the job as a broadcast engineer
> > -- my mom had to give me a lift because I wansn't old enough to get a
> > driver's license. . . I fired up the transmitter in the morning, ran a
> > canned show all day, and shut it down at night. Got some good stories
>
> My first day (at an FM station) started with instructions on how to read the
> "frequency meter" quickly, because it changed so fast!
>
> It was a school station--on the air from 4 PM to midnight. We had two of
> the large Ampex tape machines (the most expensive things in the place) with

> nice remote controls. I went on the air by playing standard tapes for 30
> minutes, by which time "real people" were supposed to arrive. The tapes
> were so brittle that they often broke in the first minute or so, leaving
> dead air. I usually grabbed whatever record appealed to me and put it on
> while fixing the tape.
>
> The transmitter (5 KW ERP; don't remember the actual power) was an antique;
> it had a wheel as large as a car steering wheel to "bring up the voltage".
> The year after I left, the FCC inspected the place and the school (which I
> shall leave unnamed) suddenly bought a considerable amount of new equipment.
>
> It was a nice student job --- take the transmitter on and off the air, read
> the meters, and keep the transmitter log. (I usually filled in the log the
> next day, "by memory".) It was the only job where I used the "P1" license;
> have never used my "T2" and probably never will considering the changes in
> ship radio requirements.
>
> Bill
> W2WO

4923. Suppressing RF on the Shield

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 03:01:26 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <k3ovvu0tkrk0bo5g73s9qh6aphngu0qo2a@4ax.com>
Source record: 128962

I have been trying to find a low cost solution to RF on coax shield. Specifically, I'd like to prevent the shield from looking like a radial at the feedpoint of the antenna. Since I'm using LMR600 (solid core), coiling the coax to make a choke is not an option (too stiff). The cable is also too thick for any but the most expensive (and hard to find) large ferrite beads. Using a huge stack of ferrite cores would work, but the cost adds up fast. Is there any negative effect to simply inserting a ferrite core choke between the coax shield and the radial attachment point? This simple solution is curiously missing from the ARRL Handbook, and I'm not sure why, unless it causes a problem somehow.

Thanks.

--Mike

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4924. Re: Suppressing RF on the Shield

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 03:18:29 UTC
From: "mkelly@powerup.com.au" <mkelly@powerup.com.au>
Message-ID: <3DFFE905.9E6BF8AE@powerup.com.au>
Source record: 128963

Even one ferrite st the antenna would help.

I found that 2 turns was ample. Also, for cheapness
try a TV deflection coil ferrite. Plenty big enough!

Cheers
Murray vk4aok

Mike wrote:
>
> I have been trying to find a low cost solution to RF on coax shield.
> Specifically, I'd like to prevent the shield from looking like a
> radial at the feedpoint of the antenna. Since I'm using LMR600 (solid
> core), coiling the coax to make a choke is not an option (too stiff).
> The cable is also too thick for any but the most expensive (and hard
> to find) large ferrite beads. Using a huge stack of ferrite cores
> would work, but the cost adds up fast. Is there any negative effect
> to simply inserting a ferrite core choke between the coax shield and
> the radial attachment point? This simple solution is curiously
> missing from the ARRL Handbook, and I'm not sure why, unless it causes
> a problem somehow.
>
> Thanks.
>
> --Mike
>
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****
* Murray Kelly vk4aok mailto://mkelly@powerup.com.au *
* 6 Spyglass Place, Oxley Ridge QLD. 4075/ Australia *
* ph/fax Intl+ 61 7 3278 9113 *
****

4925. Re: Loaded Log-Periodic Array for HF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 03:23:00 UTC
From: "Albert P. Belle Isle" <belleisl@CerberusSystems.com>
Message-ID: <g9qvvuc0ap69bn9nlt2b0bj0dpjptrc3rh@4ax.com>
Source record: 128964

On Tue, 17 Dec 2002 19:16:29 -0700, Wes Stewart <n7ws@#arrl.net>
wrote:

>----------------------------snip--------------------------------
>
>The problem is that you can shrink the element length, but loading the
>boom is another story <g>.
>

The boom length for the 10-to-30MHz log-periodics I've seen is less
than the 15-meter span of the 10MHz elements.

That's why I'm interested in loading techinques for reducing the
maximum element span to no longer than the boom-length.

Good listening,
Al
==
Location: 42N39, 71W09
HF Antennas: 65ft TFD, 45ft T2FD, 28ft vertical, 65ft doublet
HF Receivers: Ten-Tec RX340, Ten-Tec RX320, Icom R71A
Decoders: Universal M-8000, Timewave PK-232MBX/DSP,
MMTTY, Digipan, PC-ALE, PC-HFDL, WxSat
==

4926. Re: Suppressing RF on the Shield

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 03:27:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <uvvqoia7fo6v5e@corp.supernews.com>
Source record: 128965

You betcha it'll cause a problem. You'll be inserting an impedance in series with your antenna. Remember, a feedline is two conductors. The shield is one of them.

"Current" or "choke" baluns (common mode chokes) are made by winding *both* conductors of the feedline into a coil or on a ferrite form of some kind, or putting ferrite cores over both conductors. In the case of coax, this means working with the whole cable, not a single conductor of it. The desired differential currents on the inside of the coax aren't affected, but a high impedance is created for the undesired current on the outside of the coax. The method you propose will choke both the desired and undesired currents.

Roy Lewallen, W7EL

Mike wrote:
> I have been trying to find a low cost solution to RF on coax shield.
> Specifically, I'd like to prevent the shield from looking like a
> radial at the feedpoint of the antenna. Since I'm using LMR600 (solid
> core), coiling the coax to make a choke is not an option (too stiff).
> The cable is also too thick for any but the most expensive (and hard
> to find) large ferrite beads. Using a huge stack of ferrite cores
> would work, but the cost adds up fast. Is there any negative effect
> to simply inserting a ferrite core choke between the coax shield and
> the radial attachment point? This simple solution is curiously
> missing from the ARRL Handbook, and I'm not sure why, unless it causes
> a problem somehow.
>
> Thanks.
>
> --Mike
>
>
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4927. Re: Why a Light Bulb in Series With an Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 03:30:04 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-1712021930040001@bni030qny8kc.bc.hsia.telus.net>
Source record: 128967

In article <atomqe$g74$1@slb9.atl.mindspring.net>, "Peter O. Brackett"
<ab4bc@ix.netcom.com> wrote:

> Back in the "old days", that's the way we all made T/R switches for QSK.
>
> The "light bulb T/R QSK switch" was a widely used technique back when
> everyone used separate transmitters and receivers rather than modern solid
> state transceivers. It worked really well, especially with vacuum tube
> front end
> receivers which were robust in the presence of big signals.
>
> The T/R QSK switch was nothing more than an appropriately chosen
> incandescant
> light bulb.
>
> The bulb was simply connected between the transmitter antenna and the
> receiver input,

I did it a bit differently -- I used a random length receiving antenna,
placed as far as convenient away from the transmitting antenna, and I put
a light blub between the receiving antenna and the relatively low
impedance input to the receiver. I also hung an NE-2 neon bulb from grid
to ground in the RF amplifier stage of the receiver. Nothing ever cooked
inside the old Hallicrafters S20R when used on 80 or 40 meters. Of course
I was only running about 50 watts to a pair of ARC5 transmitters.

> and placed above the operating desk where it could be
> seen. On receive the bulb's low resistance allowed the receiver to
> get the full antenna signal. When the transmitter is keyed, the bulb lit up
> brightly and, because of the high tempco of resistance of tungston, the bulb
> rapidly went into a very high resistance state, thus protecting the receiver
> input and strongly attenuating the received signal.
>
> A side benefit was that when the bulb illuminated upon key down, the bulb
> provided an instataneous "on-air" indication.
>
> The design problem was that one had to choose the proper bulb, dependent
> upon the transmit power and the speed of T/R change over desired.

No real problem. I just used a somewhat lower amperage bulb there than the
one used in series with the transmitting antenna. (Didn't have "SWR
meters" back then; one just tuned the padder capacitor in the ARC5 final
amplifor plate circuit, and the L network formed by the internal series
loading inductor and an added external capacitor, for maximum brilliance
of the bulb in series with the transmitting antenna.) I suppose there was

a bit of loss of received signal strength in the light bulb connected in series with the receiver input, but not enough to keep me from hearing and working VKs and ZLs on 80 from Ohio over 50 years ago.

David, ex-W8EZE

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

4928. Re: Loaded Log-Periodic Array for HF

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 03:32:12 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-1712021932120001@bni030qny8kc.bc.hsia.telus.net>
Source record: 128968

In article <1fmvvu4ndb7h3t29b9tj6pbfek1qjic4ad@4ax.com>, Wes Stewart
<n7ws@#arrl.net> wrote:

> On Tue, 17 Dec 2002 18:51:34 GMT, Albert P. Belle Isle
> <belleisl@CerberusSystems.com> wrote:
>
> |Does anyone know of an HF log-periodic that goes down at least as far
> |as 10MHz and uses loaded, shortened dipole elements to reduce the
> |otherwise half-of-the-largest-wavelength-sized physical dimensions?
> |
> |Has anyone ever used one?
>
> Not me.
> |
> |If not, has anyone made and tried such a home-brew?
>
> No again, but I have seen them but they were military grade stuff and
> still quite large.
>
>
> The problem is that you can shrink the element length, but loading the
> boom is another story <g>.

The obvious solution is to use a fractal boom.

Ducking and running,

David, ex-W8EZE

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

4929. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 03:37:01 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-1712021937010001@bni030qny8kc.bc.hsia.telus.net>
Source record: 128966

In article <atoo1q$lh1$0@208.206.142.79>, dixie@townsqr.com wrote:

> Both the old Gates rigs I looked in on were pretty rugged and required
little
> except an occasional tube. One was a BC1-J and the other an H, and both ran a
> pair of 833A's in parallel in the final modulated by another pair using a huge
> choke for the modulating reactor..
>
> But once one of them tossed a real curve, one that I've never encountered
> before nor since. The station manager called and said the transmitter was off
> frequency. That was a problem not seen before, in fact the old rigs were very
> frequency stable. Sure enough, the frequency meter -normally centered- was on
> the right peg. A quick look under the hood revealed the exciter/driver
tube, a
> 6146, and all the other small associated tubes on that deck were running red
> hot, their plates glowing brightly. Checking the 800 volt supply, it
pegged the
> 1KV scale on the Simpson. Hmmm, higher than normal voltage? How could that be?
>
> A quick look at the power supply schematic revealed what HAD to be the
> problem. The power supply used a dual section pi filter with inductive
output.
> I recalled that an inductive output filter supplies average voltage
with better
> regulation, while a capacitive output filter supplies RMS, or 1.414 times
> average voltage. There was clearly no other way the voltage could have
gotten so
> high - the output filter choke had to have shorted across it's winding,
instead
> of shorting to ground as almost always happened when one failed. That would
> convert the supply from an inductive output to capacitive output mode.
> Installing a spare choke brought everything back to normal, the tubes
running
> normal color and the frequency meter back off the peg to center scale.

But how did the overvoltage situation manage to shift the transmitter off
frequency? Did it allow a parasitic oscillation at some random frequency?

David, ex-W8EZE

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

4930. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 03:58:05 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <atorodsqq0@208.206.142.79>
Source record: 128869

Tdonaly wrote:

> Fred wrote,
> >
> >
> >It is called the Constitution. It expressly says we have the right to keep
> >and bear arms. Show me the amendment that guarantees the right to operate a
> >motor vehicle or a ham radio and the argument may apply. Otherwise apples
> >and oranges. But, you knew that all ready and decided to trot out a tired
> >old argument to see if the wounded duck could be made to fly...
> >
>
> The Ninth Circuit Court of Appeals ruled that the Constitution just gives
> us the right to join a militia. What militia do you belong to Fred?

And the Ninth circuit is the most overturned and leftist court in the land.

4931. Re: All Band Wire Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 04:05:44 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFFF418.7010004@ieee.org>
Source record: 128871

Chuck/KE4ETH wrote:
> On the 4, 8 and 16 foot feedline, is it ok to coil these r do then need to
> be in one large loop?

The loops can be coiled in a corkscrew but keep all parts about six
inches away from every other part. I personally use single loops.
--
cheers, CAM http://www.qsl.net/w5dxp

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4932. Re: Fractal Debate

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 04:05:51 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <atos6v$u83$0@208.206.142.79>
Source record: 128870

>
> "In the beginning of change, the patriot is a scarce man; brave, hated and
> scorned. When his cause succeeds, however, the timid join him, for then it
> costs nothing to be a patriot"
> --Twain
>
> .

It's worth noting that during the Revolution only about a third of the colonists were actually active in the resistance. The other two thirds were either "timid" Loyalists who would have let George have his way with them or who fled from the conflict to a safe haven in the north. Yet all eventually reaped the benefits of the work of the few.

Dick

4933. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 04:11:36 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFFF578.6070005@ieee.org>
Source record: 128872

Peter O. Brackett wrote:
> Thus, if you *combine* charges together [Heh, heh... is that algebraic
> addition? Or is that
> vector addition? Or is that phasor addition? I dunno!] you should always
> get the total
> energy of all the charges as the algebraic sum of the energies of the
> individual charges.
>
> No?
>
> What?

The reflection model tells us that there is V^2/Z0 joules/sec associated
with a voltage wave. Let's assume that Z0=50 ohms, V1 = 100V at zero deg
and V2 = 100V at zero deg. There is 200 joules/sec in each wave. When
we add the two voltages we get 200V at zero deg and 800 joules/sec. Where
did the extra 400 joules/sec come from?
--
cheers, CAM http://www.qsl.net/w5dxp

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4934. Re: Suppressing RF on the Shield

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 04:16:21 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3DFFF695.8000908@ieee.org>
Source record: 128873

Mike wrote:
> I have been trying to find a low cost solution to RF on coax shield.
> Specifically, I'd like to prevent the shield from looking like a
> radial at the feedpoint of the antenna. Since I'm using LMR600 (solid
> core), coiling the coax to make a choke is not an option (too stiff).
> The cable is also too thick for any but the most expensive (and hard
> to find) large ferrite beads. Using a huge stack of ferrite cores
> would work, but the cost adds up fast. Is there any negative effect
> to simply inserting a ferrite core choke between the coax shield and
> the radial attachment point? This simple solution is curiously
> missing from the ARRL Handbook, and I'm not sure why, unless it causes
> a problem somehow.

There's nothing wrong with using a different kind of coax from which
to make a coiled up choke. I use RG-400 teflon for all my chokes.
You might want a second choke 1/4WL from the feedpoint.
--
cheers, CAM http://www.qsl.net/w5dxp

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4935. Re: Reflected power...the TRUE story!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 04:31:46 UTC
From: gmz79@aol.comnospam
Message-ID: <20021217233146.06651.00000070@mb-cj.aol.com>
Source record: 128874

> I take it that she doesn't read this NG??
> 'Doc

U are correct sir
kc8vif
Greg Z
to thine own sound be true

4936. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 05:05:20 UTC
From: John LeMay <jlemay@njmc.com>
Message-ID: <pan.2002.12.18.05.04.59.328626@njmc.com>
Source record: 128875
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

On Tue, 17 Dec 2002 13:28:54 +0000, CW wrote:

> You say no tuner is necessary then say to use a tuner. Interesting.

I took this to mean a tuner isn't required, but it may help.

--
John LeMay
Senior Enterprise Consultant
NJMC | http://www.njmc.com | Phone 732-557-4848
Specializing in Microsoft and Unix based solutions

4937. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 05:51:48 UTC
From: tdonaly@aol.com
Message-ID: <20021218005148.10374.00000064@mb-fa.aol.com>
Source record: 128876

>
>Hmmmm... well.
>
>It seems that you are somewhat confused. :-)
>
>When I check with my basic Physics references I find that voltage *is*
>actually energy.
>
>And I find that voltage is not a fundamental unit, and for that matter
>neither is energy.
>
>Energy is apparently expressed in terms of units called Joules which are
>derived from
Peter wrote,
>the fundamental units of force and distance [Newton-meters].
>
>The units of voltage are indeed expressed in terms of units of energy per
>unit of charge.
>So there is your answer...
>
>One Volt is exactly one Joule [or one Newton-meter of energy] per Coloumb
>[of charge].
>
>Thus, if you *combine* charges together [Heh, heh... is that algebraic
>addition? Or is that
>vector addition? Or is that phasor addition? I dunno!] you should always
>get the total
>energy of all the charges as the algebraic sum of the energies of the
>individual charges.
>
>No?
>
>What?
>
>--
>Peter K1PO
>Indialantic By-the-Sea, FL
>

What if there aren't any charges, Peter, as in the wave radiating from an antenna? You've read enough to know where the energy is in that, right? Actually, Cecil has a right to complain. It does seem to violate the conservation of energy laws. However, as in the case of the two slit experiment that Richard Clark mentioned, although the intensity of the

light a distance from the slits is proportional to (E1 + E2)^2 there is a reason why conservation of energy isn't violated. Do you know what it is?
73,
Tom Donaly, KA6RUH

4938. Re: Re: Suppressing RF on the Shield

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 06:15:44 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <58400vonv75ui612umc2qphtf2tde0pmpi@4ax.com>
Source record: 128877

Got it. Thanks for the explanation, Roy.

I think what I'll do is use small pieces of RG213 with ferrite beads over them (a size that is easier to obtain), and connect them to the LMR600 with male/female N-connectors. Or, I could do the same with longer pieces of RG213, coiled as a choke balun. To save money, I think I'll use coiled RG213 on the HF feedline, and ferrite beads only on the VHF/UHF feedline.

--Mike

On Tue, 17 Dec 2002 19:27:03 -0800, Roy Lewallen <w7el@eznec.com> wrote:

>You betcha it'll cause a problem. You'll be inserting an impedance in
>series with your antenna. Remember, a feedline is two conductors. The
>shield is one of them.
>
>"Current" or "choke" baluns (common mode chokes) are made by winding
>*both* conductors of the feedline into a coil or on a ferrite form of
>some kind, or putting ferrite cores over both conductors. In the case of
>coax, this means working with the whole cable, not a single conductor of
>it. The desired differential currents on the inside of the coax aren't
>affected, but a high impedance is created for the undesired current on
>the outside of the coax. The method you propose will choke both the
>desired and undesired currents.
>
>Roy Lewallen, W7EL

----------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
http://www.newsfeed.com The #1 Newsgroup Service in the World!
-----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

4939. How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 07:08:28 UTC
From: jason_hsu@my-deja.com
Message-ID: <f7d9a152.0212172308.4c10bb08@posting.google.com>
Source record: 128878
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Can someone tell me how an SWR meter works? I'm looking at the SWR meter project described at:
http://www.arrl.org/members-only/tis/info/pdf/9702033.pdf

I know that an SWR meter works by detecting the differences between the forward and reflected powers. In this particular circuit, the forward and reflected powers are sent into an LM3914 chip. I am familiar with the functions of the 3914 chip. The forward power becomes a forward voltage that is used as the high reference voltage level. The reflected power becomes a reflected voltage that becomes the signal that the LM3914 chip tests.

The forward power and the reflected power look like they are fed into virtually IDENTICAL circuits. (Notice how both the forward and reflected sides are fed into a Ge diode. And the positive side faces the transmission line for both.) I know that there are couplers in this circuit, but I am having difficulty understanding what's going on. How does this circuit ensure that one part of the circuit responds only to the forward power and that the other part of the circuit only responds to the reflected power?

Jason Hsu, AG4DG
usenet@@@jasonhsu.com

4940. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 07:18:19 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <atp7g0$442$1@slb3.atl.mindspring.net>
Source record: 128879

Cecil:

Perhaps the following [analogy] will help you to understand why your reasoning does
not work out.

Remember from basic Physics that Volts are Joules per Coloumb. Then...

Consider
--
A water pipe filled with flowing water which is "carrying" 200 Joules of energy per liter.
[Electrical analogy is 200 Volts = 200 Joules per Couloumb]

Note: This tells us nothing about the total amount of energy being carried past a given
point per second, i.e. power flow, unless we know how many liters are passing per second.

To make things concrete lets say there are 5 liters per second flowing past a given point
[Electrical analogy is specifying the resistance e.g. like your 50 Ohms.] then the power
flow would be calculated as 200 Joules/liter * 5 liters/second = 1000 Joules per second.
[A power of 1000 Watts]

As that great Texan George Strait sings, "Write this down!"

For some reason which seems "intuitive" to practicioners of "reflection mechanics" let's
now resolve this measure of 200 Joules per liter [arbitrarily?] into two [waves] each
carrying 100 Joules per liter.
[100 Joules per liter + 100 Joules per liter = 200 Joules per liter]

Note: This [arbitrary] resolution tells us nothing about the total amount of energy being
carried past a given point per second i.e. the total power flow.

Perhaps it tells us something about the individual power flows!

Let's see...

To calculate the power in each of the [arbitrary] 100 Joules per liter flows we clearly need
to know the number of liters flowing past the given point in each of the two arbitrary

flows.

Since the individual amounts of flow per second have not been specified, we could make
an arbitrary assignment assumption. [What is the electrical analogy here?]

Lets arbitrarily say that the total of 5 liters per second is split exactly in half between
the two with 2.5 liters per second in each flow. Then the total power can be calculated
as [100 * 2.5 + 100 * 2.5 = 250 + 250 = 500 Joules per second].

Compare to what George Strait told us to write down...

Hmmm... something seems to be wrong here!

Let's try something else... What if the split was say 1 liter per second for one flow and 4 liters per second for the other? Then we would calculate the power flow as
[100 * 1 + 100 * 4 = 500 Joules per second.]

Hmmm... something is still wrong?

Let's make another [arbitrary] resolution of the 200 Joules per liter into say 50 Joules
per liter and 150 Joules per liter and then recompute the individual power flows, say
for 2.5 liters each [50 * 2.5 + 150 * 2.5 = 125 + 375 = 500 Joules per second]

Clearly in any case of [two] individual volume flows which add up to the total flow
we will always get a Power of 500 Watts instead of the actual 1000 Watts when we use the
individual flows to calculate the total power.

But... we know that the total power is actually 1000 Watts!

While using a resolution of the total Joules per liter into two individual flows we
always get 500 Watts...

What was it the Romans or Greeks said, "Reductio in absurdium" or something like that?

Clearly our methods cannot be correct and there must be something wrong with the above
reasoning and/or assumptions.

Is it possible that one cannot calculate the total power correctly from the individual
per liter energy measures?

What?

Where is the falicy?

Thoughts, comments?

--
Peter K1PO
Indialantic By-the-Sea, FL

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DFFF578.6070005@ieee.org...
> Peter O. Brackett wrote:
> > Thus, if you *combine* charges together [Heh, heh... is that algebraic
> > addition? Or is that
> > vector addition? Or is that phasor addition? I dunno!] you should
always
> > get the total
> > energy of all the charges as the algebraic sum of the energies of the
> > individual charges.
> >
> > No?
> >
> > What?
>
> The reflection model tells us that there is V^2/Z0 joules/sec associated
> with a voltage wave. Let's assume that Z0=50 ohms, V1 = 100V at zero deg
> and V2 = 100V at zero deg. There is 200 joules/sec in each wave. When
> we add the two voltages we get 200V at zero deg and 800 joules/sec. Where
> did the extra 400 joules/sec come from?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4941. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 07:38:56 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <atp8vl$1ij$1@slb5.atl.mindspring.net>
Source record: 128880
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Hey Jason:

For design of the so-called SWR meter, download (yes, right first time)
program SWRMETER.

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

--
Peter K1PO
Indialantic By-the-Sea, FL

"Jason Hsu" <jason_hsu@my-deja.com> wrote in message
news:f7d9a152.0212172308.4c10bb08@posting.google.com...
> Can someone tell me how an SWR meter works? I'm looking at the SWR
> meter project described at:
> http://www.arrl.org/members-only/tis/info/pdf/9702033.pdf
>
> I know that an SWR meter works by detecting the differences between
> the forward and reflected powers. In this particular circuit, the
> forward and reflected powers are sent into an LM3914 chip. I am
> familiar with the functions of the 3914 chip. The forward power
> becomes a forward voltage that is used as the high reference voltage
> level. The reflected power becomes a reflected voltage that becomes
> the signal that the LM3914 chip tests.
>
> The forward power and the reflected power look like they are fed into
> virtually IDENTICAL circuits. (Notice how both the forward and
> reflected sides are fed into a Ge diode. And the positive side faces
> the transmission line for both.) I know that there are couplers in
> this circuit, but I am having difficulty understanding what's going
> on. How does this circuit ensure that one part of the circuit
> responds only to the forward power and that the other part of the
> circuit only responds to the reflected power?
>
> Jason Hsu, AG4DG
> usenet@@@jasonhsu.com

4942. Re: Suppressing RF on the Shield

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 07:51:20 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <2T67NhC4jCA+EA2y@ifwtech.co.uk>
Source record: 128886

OC_CAM's Razor wrote:
>Mike wrote:
>> I have been trying to find a low cost solution to RF on coax shield.
>> Specifically, I'd like to prevent the shield from looking like a
>> radial at the feedpoint of the antenna. Since I'm using LMR600 (solid
>> core), coiling the coax to make a choke is not an option (too stiff).
>> The cable is also too thick for any but the most expensive (and hard
>> to find) large ferrite beads. Using a huge stack of ferrite cores
>> would work, but the cost adds up fast.

>
>There's nothing wrong with using a different kind of coax from which
>to make a coiled up choke. I use RG-400 teflon for all my chokes.

Works here too - even a coil laid flat on the ground will kill the
shield currents, as verified by a clip-on RF current probe.

>You might want a second choke 1/4WL from the feedpoint.

The shield currents do have a habit of coming back by induction, farther
away from the antenna base, but they're at a much lower level than you'd
see without the choke at the feedpoint.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

4943. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 08:20:02 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3E002FB2.81766848@cwis.net>
Source record: 128881
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Jason,
They are identical circuits, the 'difference' being
in which 'direction' the voltage is being measured...
'Doc

4944. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 08:22:11 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3E003033.BE655F65@cwis.net>
Source record: 128882

CW,
Or, when you plan to go above a certain height, don't
remember what that is though.
'Doc

4945. FS C Band Down Converters Unused

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 08:24:11 UTC
From: tonys2@aol.com
Message-ID: <20021218032411.02811.00000240@mb-ch.aol.com>
Source record: 128883

View at www.pearlone.com if interested

4946. Re: indoor antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 08:25:30 UTC
From: F8BOE Olivier <f8boeNOSPAM@free.fr>
Message-ID: <3e003102$0$1924$626a54ce@news.free.fr>
Source record: 128884

Hi Daniel

Try HB9CV or ouble bazooka antennas.
Your only problems should occur for simplex QSOs

73 de F8BOE Olivier ...-.-

4947. Re: Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 08:59:15 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0212180059.1d434fd2@posting.google.com>
Source record: 128885

k3bu@aol.com (Yuri Blanarovich) wrote in message
news:<20021217100205.07110.00000203@mb-mu.aol.com>...
>
> Ideally, I think in addition, the volume contained by the RF in the lobes in
> the half-spheres would be best representation of the antenna's properties, just
> horizontal plane is the next best approximation or picture of it.
>
Hi Yuri,

thanks a lot for your explanation. I see I was not that wrong at all.

To be more specific...

Last few weeks I added some genetic algorithms to my software to
improve the optimization ability. There is other software available to
use this for Yagi antennas, but I wanted have no limitation on the
type of antenna.

To make this work I need calculable parameters which are important for
the average antenna user. So as a first thought I used Forward-Gain,
F/B-ratio and F/R-ratio (for a user-specified Elev/Azim angle of
interest) as the parameters which say something about how good a
certain antenna performs.

I agree with you that the default F/B ratio does not say much, so one
could use the F/R ratio to specify backward rejection. In the modeling
program I use the difference in Gain between the desired direction and
the gain for the max-lobe in the backward half of the sphere. Or maybe
I should use the average value ?

Now I am wondering if there are more calculable things (beamwidth ?)
to mention which say something about how good a certain antenna
performs....

Arie.

4948. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 10:36:36 UTC
From: Mike Allenson <mike@allenson.fsnet.co.uk>
Message-ID: <atpj59ugr1@newsg1.svr.pol.co.uk>
Source record: 128887
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Jason

I find it easiest to think in terms of the forward and reflected waves on the three transmission lines. On the main line we have the a forward wave and a reverse wave which are the fundamental quantities we are trying to measure. (although eventually they are combined and presented as SWR) Each has a voltage component and a current component linked by the characteristic impedance of the line.

The two coupled lines have forward and reflected waves induced in them by the proximity coupling to the main line. Their amplitudes are proportional to the amplitudes of the waves on the main line. (The ration of current to voltage on the coupled lines is determined by the characteristic impedance of the coupled lines which will be higher than the main line because of the smaller conducter dimensions)

An important peculiarity is that the coupled wave proportional to the main forward wave travels in the reverse direction to the main forward wave and like wise for the coupled reverse wave which travels in the opposite direction to the main reverse wave.

If opposite ends of the two coupled lines are terminated by resistors which can be adjusted to the coupled line characteristic impedance and a voltage detector is placed on the other the reverse wave can be nulled out on one and the voltage from the detector is proportional to the forward wave amplitude (on the main line). On the other the forward wave is nulled out and the detector output is proportional to the mainline reverse wave.

Hope this helps

Mike G3TGD
"Jason Hsu" <jason_hsu@my-deja.com> wrote in message
news:f7d9a152.0212172308.4c10bb08@posting.google.com...
> Can someone tell me how an SWR meter works? I'm looking at the SWR
> meter project described at:
> http://www.arrl.org/members-only/tis/info/pdf/9702033.pdf
>
> I know that an SWR meter works by detecting the differences between
> the forward and reflected powers. In this particular circuit, the
> forward and reflected powers are sent into an LM3914 chip. I am
> familiar with the functions of the 3914 chip. The forward power
> becomes a forward voltage that is used as the high reference voltage
> level. The reflected power becomes a reflected voltage that becomes
> the signal that the LM3914 chip tests.
>

> The forward power and the reflected power look like they are fed into
> virtually IDENTICAL circuits. (Notice how both the forward and
> reflected sides are fed into a Ge diode. And the positive side faces
> the transmission line for both.) I know that there are couplers in
> this circuit, but I am having difficulty understanding what's going
> on. How does this circuit ensure that one part of the circuit
> responds only to the forward power and that the other part of the
> circuit only responds to the reflected power?
>
> Jason Hsu, AG4DG
> usenet@@@jasonhsu.com

4949. Re: Follow up to Dec. 8th post about "Loop Skywire"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 12:18:45 UTC
From: Bibby <bibby@attbi.com>
Message-ID: <FIZL9.413688$QZ.64856@sccrnsc02>
Source record: 128888

Mark, what time and where about in the band do you hear the Aussies?

Malcolm, W1/GW3NJY

"Mark Hall" <mark.hall34@verizon.net> wrote in message
news:rVJL9.36496$4W1.16604@nwrddc02.gnilink.net...
> One mistake I made when I first installed mine was using a 4:1 voltage
balun
> (528' #10 THHN wire). It worked fine, and I was happy, although SWR
wasn't
> the best. Somewhere I read that big loops had higher impedance. I then
> took out the balun, and whammo!! SWR dropped significantly. Anyway..
> maybe use a choke balun if you feel the need, but I don't think it matters
> much. Those Aussies on 40M are Booming in the early morning.
>
> '73 KI4Z
>
>
> "rich a." <rckchp@comcast.net> wrote in message
> news:6dc33f40.0212161623.6f001fd8@posting.google.com...
> > This is a follow up to my original post about the "Loop Skywire"
> > antenna.
> >
> > I put it up today....it is sort of a narrow rectangle rather than a
> > square loop....I don't have a long tape measure so the size is a very
> > rough estimate.....approx 170' long by approx 50' wide (approx 440'
> > total). One corner is up approx 35'....the nearest opposite corner is
> > approx 20' up.....then it slopes down to approx 15-20 ft at the far
> > ends. Its what fits with the trees I have on my property.
> >
> > The feed point is approx 45' from the corner on one of the long legs.
> > I'm using rg8x, no balun. I didn't even try to "model" this but I just
> > worked Boliva and Argentina (Tierra del Fuego)using my K2 with
> > autotuner at 5 watts....so I'm a happy camper as I had nothing to use
> > on 20m before today. I'll be trying it on 80 and 160 tonite but may
> > have to adjust the feed line length to get a better match....the way
> > it is I only get 4.7-1 on 160, but it does 1.2-1 on 80.
> >
> > Rich K2CPE
> > K2 #1102
>
>

4950. Re: All Band Wire Antenna Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 13:23:41 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <IG0M9.1087$Ag3.504@news.bellsouth.net>
Source record: 128897

Thanks, I have a six-year-old that gets his fingers into everything. Just
want to try to make it childproof. Out to make it adultproof to. HI

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3DFFF418.7010004@ieee.org...
> Chuck/KE4ETH wrote:
> > On the 4, 8 and 16 foot feedline, is it ok to coil these r do then need
to
> > be in one large loop?
>
> The loops can be coiled in a corkscrew but keep all parts about six
> inches away from every other part. I personally use single loops.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4951. Re: Small antenna for 40Mhz hand-portable

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 14:02:37 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3E007FFD.8030200@tampabay.rr.com>
Source record: 128889
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

hey paul
you could make a 1/4 wave antenna it would be around 80inc or so but
still rather long for an R/C transmitter

Paul Burridge wrote:
> Hi,
>
> I'm getting rather poor signal reliability using an ordinary
> telescopic
> whip for r/c purposes. I was thinking about going in for something
> tuned,
> but a full half-wave dipole for example would be far too big and
> cumbersome. Does anyone know how I could go about making up my own
> ariel specifically for this frequency? I was thinking maybe a 'rubber
> duck' or something similar
> that's mostly coiled up? Anyway,
> something small and compact. Any suggestions please!
>
> Thanks
> p.

4952. Re: Follow up to Dec. 8th post about "Loop Skywire"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 14:04:49 UTC
From: richardharrison@webtv.net
Message-ID: <13406-3E008081-16@storefull-2316.public.lawson.webtv.net>
Source record: 128891

Rich, K2CPE wrote:
"---I just worked Bolivia and Argentina (Tierra del Fuego) using my K2 with autotuner at 5 watts."

Rich has done well with a random loop.

I`ve lived and worked in Bolivia and Tierra del Fuego. I put in a lot of radios and antennas in both places.

Did the Argentine say where he was? Ushuaia (the southernmost city in the world), Rio Grande, San Sebastian, or some estancia? When I lived there, there was only one ham, Padre Munoz, who lived near Rio Grande. He is gone now, or he would be the oldest man alive.

I erected a rhombic near Rio Grande, and it was aimed at Buenos Aires. It worked like crazy and I expect it is still in use after 40 uyears.

Best regards, Richard Harrison, KB5WZI

4953. Re: Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 14:10:11 UTC
From: k3bu@aol.com
Message-ID: <20021218091011.28384.00000325@mb-fo.aol.com>
Source record: 128890

Arie writes:
>Hi Yuri,
>thanks a lot for your explanation. I see I was not that wrong at all.
>
>To be more specific...
>Last few weeks I added some genetic algorithms to my software to
>improve the optimization ability. There is other software available to
>use this for Yagi antennas, but I wanted have no limitation on the
>type of antenna.
>
>To make this work I need calculable parameters which are important for
>the average antenna user. So as a first thought I used Forward-Gain,
>F/B-ratio and F/R-ratio (for a user-specified Elev/Azim angle of
>interest) as the parameters which say something about how good a
>certain antenna performs.
>
>I agree with you that the default F/B ratio does not say much, so one
>could use the F/R ratio to specify backward rejection. In the modeling
>program I use the difference in Gain between the desired direction and
>the gain for the max-lobe in the backward half of the sphere. Or maybe
>I should use the average value ?
>
>Now I am wondering if there are more calculable things (beamwidth ?)
>to mention which say something about how good a certain antenna
>performs....
>
>Arie.
>

Hi Arie,
Thanks for the explanation and effort to include antenna optimization, this is very important aspect of modeling software. I am missing that from EZNEC. I tried to go between EZNEC and K6STI AO antenna optimizer, but it is awkward, need to translate coordinates.

First I thought that you are concerned about the publishing of specs, let's say, as manufacturer would be concerned. But if you are going after parameters for optimization then I would suggest to have two main goals: one to go after max possible gain, second for maximum "cleanest" pattern - meaning trying to reduce back hemisphere radiation, which should really look for minimizing the volume of the back (or side) lobes. To be able to specify the ratio between two compromises for optimization is desirable.

Typically, antenna optimized for max gain, does not have the cleanest pattern, but I think by having software able to do the fine tuning, we should be able to

come up with best compromise as desired.

Another nice thing to have in the modeling software is the feature to involve terrain (like sloping ground, hills) and various ground zones (like ocean front, sand - salt water).

I did some work back in 70ies (hard) modeling on 2m antenna range and designed some decent antennas using Quad and Yagi element combinations (see http://members.aol.com/ve3bmv/Razors.htm). I found that dual reflectors helped to cleanup the pattern in longer boom antennas. Now I am into vertical arrays for the oceanfront.

I will be glad to work with you on fine tuning the software and to verify thing on 2m test range. I will be setting it up soon and I am looking forward to play with this stuff again. I am also outfitting portable tower/trailer setup so I can go around and check things out.

Thanks for all your efforts!

73 Yuri

4954. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 14:33:34 UTC
From: Piotr Balcerzak <bpiotrek@yahoo.com>
Message-ID: <6F%L9.227730$C8.649328@nnrp1.uunet.ca>
Source record: 128892
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

"Candy" <candy200@mailandnews.com> wrote in message
news:3DFE4715.7A8ED713@mailandnews.com...
> I live in an appartment, urban area (down town). My new YB-400
> receives only strong stations (indoor) when I extend its built-in
> antenna, weaker stations are barely audible, and there is lot of
> noise, too. Reel antenna by Grundig which is included in the
> package, improves sensitivity a bit.
>
> Someone told me an outdoor antenna may reduce noise(?) and improve
> sensitivity.
>
> I am really radio illiterate, so all I can think off is a kind of
> small inverted-L antenna, 3.80m (12.46') long enamelled copper wire
> span on a top of a balcony ceiling which will be about 10 metres
> above a street.
>
> Will this project help ? If so, should I use a bare copper wire
> or enamelled wire ? Do I need a tuner for the antenna to cover
> 11-90m bands ?
>
> If this idea for reducing noise and improving sensitivity is useles,
> please suggest something that will work. A balcony is 390x30cm.
>
> Are there any pre-built low cost outdoor stealth antennas which will
> help in my case ?
>
> Thank you very much.
>

Hi,

I think your main concern should be signal to noise ratio
and not the sensitivity. What you need is 'quiet' antenna
- not a big one. By the way, I had YB400 and I know
that this radio doesn't handle large signals very well. It
means that big antenna can make reception worse.

Outdoor antenna will certainly reduce noise. You can
further decrease noise by keeping it away from any
metal surfaces (notice that concrete walls have often
steel wire mesh inside). Radioamateurs used to say
that "antennas like to breathe with air" ;-) so give it
as much space as you can.

For minimal noise pickup the antenna should be
mounted horizontally. It is good idea to use steel
whip (for example from mobile CB antenna). Anything
between 1 and 1.5 m would be fine (again: you don't
need big antenna with YB400).
You could mount the whip horizontally and pointing
outside the building. The whip is thin and shouldn't
be very visible from ground level.

Next step is impedance transformer. Buy toroid
core FT82-77 and wind 12 turns and 4 turns of
insulated wire (2 completely _separate_ windings).
Connect the first winding (12 turns) between the
whip and ground (you can use 1...2 m of loose
hanging wire as 'ground'). Connect second winding
(4 turns) to coax (do NOT connect coax shield with
antenna ground!). Notice that the main advantage
of using the transformer here is not boosting the signal
(though it does this too) but decoupling common mode
currents. That's why the transformer must have two
separate windings! (Separate windings will also
protect your receiver against statics.)

When you're using the transformer, you should
mount the antenna using wooden supports. Any metal
touching the antenna (for example balcony railing)
- even antenna's ground - may introduce noise (this
is very true in high-rise buildings).

Good luck,
Piotr

4955. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 14:56:23 UTC
From: richardharrison@webtv.net
Message-ID: <13406-3E008C97-22@storefull-2316.public.lawson.webtv.net>
Source record: 128894

Dick Carrol wrote:
"The power supply used a dual section pi filter with inductive output."

Make that a "choke input filter". The charge of the input capacitor to the peak value of the input voltage is the source of the high input voltage. With an input choke in place, the input capacitor isn`t exposed to the peak voltage of the a-c waveform..

Best regards, Richard Harrison, KB5WZI

4956. Re: Why a Light Bulb in Series With an Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 15:05:23 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <vXydnf1zc9SAE52jXTWcoA@comcast.com>
Source record: 128893

I can attest to that. When fooling around with 75 meter antennas, I was transmitting 100? W into a vertical loop, and measured the power being picked up by a dipole that was about 20 feet away. Would you believe 10 W ! I haven't done this yet, but plan to measure the pickup of signals on stacked beams. I suspect the worst case might be some of these multiband beams that use separate feedlines for different bands.

Tam/WB2TT
"Dave Platt" <dplatt@radagast.org> wrote in message news:uvvmbqhujote78@corp.supernews.com...
> This might occur, for example, if you have a receive-only antenna on
> this input, and a transmit/receive antenna located somewhere nearby.
> When you key up your transmitter, the proximity of the receive antenna
> could result in a lot of power coupling back into the rig. In the
> absence of the light bulb, almost all of this power would be
> dissipated in the 10- and 47-ohm resistors and in the LPF, and they
> might overheat.

4957. Re: Earthing necessary?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 15:31:25 UTC
From: richardharrison@webtv.net
Message-ID: <14828-3E0094CD-3@storefull-2314.public.lawson.webtv.net>
Source record: 128895

David, ex-W8EZE wrote:
"But, how did the overvoltage situation manage to shift the transmitter off frequency?"

I wasn`t there, but I worked with a Gates 5-A, 892-R final, 891-R`s modulators, for 10 years.
It had a very simple oscillator using a crystal in an oven you could see through a glass window. You could read the oven thermometer.

Frequency stayed within a couple of cycles according to the GR frequency monitor.

Changing the plate voltage by 40% would have
surely thrown the oscillator way off-frequency and pegged the monitor, even if no plates turned red. Oscillators are dependent on stable plate voltage. Raising the plate voltages increases crystal drive. It heats and the resonant frequency changes. It could even break, were it a high frequency crystal.

Best regards, Richard Harrison, KB5WZI

4958. FM Reception

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 15:44:23 UTC
From: Bill <wgtp1@rcn.com>
Message-ID: <atq576$72k$1@bob.news.rcn.net>
Source record: 128896

I live in a high rise co-op just outside NYC & am having a hard time getting FM recption any ideas?...I face east away from the city.....Thanx

4959. Re: Follow up to Dec. 8th post about "Loop Skywire"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 15:50:22 UTC
From: richardharrison@webtv.net
Message-ID: <14818-3E00993E-30@storefull-2314.public.lawson.webtv.net>
Source record: 128900

I wrote:
"---there was only one ham, Padre Munoz---."

I mis-spoke. Allex Ussler, LU?, a nuclear physicist, was assigned to assist me, but he wasn`t an active ham at the time.

Best regards, Richard Harrison, KB5WZI

4960. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 15:52:37 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0099C5.9040605@ieee.org>
Source record: 128898
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Jason Hsu wrote:
> Can someone tell me how an SWR meter works? I'm looking at the SWR
> meter project described at:
> http://www.arrl.org/members-only/tis/info/pdf/9702033.pdf
>
> I know that an SWR meter works by detecting the differences between
> the forward and reflected powers. In this particular circuit, the
> forward and reflected powers are sent into an LM3914 chip. I am
> familiar with the functions of the 3914 chip. The forward power
> becomes a forward voltage that is used as the high reference voltage
> level. The reflected power becomes a reflected voltage that becomes
> the signal that the LM3914 chip tests.
>
> The forward power and the reflected power look like they are fed into
> virtually IDENTICAL circuits. (Notice how both the forward and
> reflected sides are fed into a Ge diode. And the positive side faces
> the transmission line for both.) I know that there are couplers in
> this circuit, but I am having difficulty understanding what's going
> on. How does this circuit ensure that one part of the circuit
> responds only to the forward power and that the other part of the
> circuit only responds to the reflected power?

This one is very easy to understand. The two pickups on the stripline
are arranged in opposite directions. Each pickup has a 50 ohm load on
one end and a diode on the other end. The 50 ohm load dissipates the
coupled wave in one direction and the diode rectifies the coupled wave
in the other direction. Each pickup is designed to respond to a wave
traveling in only one direction. The forward sampled voltage is rectified
and the reflected sampled voltage is rectified before being presented to
the LM3914 chip, i.e. the LM3914 is working only with DC values.
--
cheers, CAM http://www.qsl.net/w5dxp

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4961. Beter to put elements through boom or on top?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 15:54:08 UTC
From: dgilbert@nascospg.com
Message-ID: <a235b6a6.0212180754.2e7b999a@posting.google.com>
Source record: 128899

I am thinking about building a beam antenna as an experiment for channel 25. (542 mhz). Is it better to put the elements on top of a wood boom with a staple or through? My only thought was they may be more in line on top of the boom in case I did not get all the holes in the boom exactly square if I did it the other way.

4962. Re: Beter to put elements through boom or on top?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 16:16:48 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3E009F70.754DAA57@cwis.net>
Source record: 128901

Don,
As long as you are reasonably careful about drilling
the holes, it won't make any difference at all.
'Doc

4963. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 16:25:11 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E00A167.9030802@ieee.org>
Source record: 128902

Peter O. Brackett wrote:
> For some reason which seems "intuitive" to practicioners of "reflection
> mechanics" let's
> now resolve this measure of 200 Joules per liter [arbitrarily?] into two
> [waves] each
> carrying 100 Joules per liter.
> [100 Joules per liter + 100 Joules per liter = 200 Joules per liter]

Can't let you get away with that one, Peter. Halving the number of joules per liter is a violation of the boundary conditions. You would have to bring additional neutral fluid in to dilute the existing fluid. This is exactly the mistake that Dr. Best makes. You don't realize that you *must* introduce more fluid in order to dilute the original. Dr. Best doesn't realize that he *must* introduce more energy in order to support the constructive interference involved in his voltage waves. That energy is re-reflected energy as can be seen on my web page.

If you don't introduce any more liquid you simply divide the original wave into two waves of 2.5 liters/sec with each liter containing 200 joules.

2.5 * 200 = 500 watts. Two of them equal 1000 watts.

Dr. Best has failed to demonstrate how to take two phase-locked IC-706's, each outputting their maximum 100 watts into 50 ohm transmission lines, i.e. V=70.7V at I=1.414A, and superpose those two and only two waves to obtain 141.4V at 2.828A for a total of 400 watts. Maybe you can show us how to do that, Peter?
--
cheers, CAM http://www.qsl.net/w5dxp

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4964. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 16:26:05 UTC
From: richardharrison@webtv.net
Message-ID: <20913-3E00A19D-65@storefull-2318.public.lawson.webtv.net>
Source record: 128905

CAM wrote:
"I have a five foot tall live oak tree in my front yard. It was hit by lightning but not by the main bolt."

Cecil must have a lightning magnet nearby to draw lightning to such a low target, or is it the tallest thing in the area?

I was in the Muir Woods, north of San Francisco, last month. There are 200 foot tall conifers there which are 2000 and 3000 years old. Nearly every one of them has a wide and deep carbon valley up and down its trunk from lightning strikes. Some think these trees have a right to live also. Others say that we need the lumber, cut them down.

Working in radio stations, I`ve often heard the staccato of flashes across guy wire insulators in advance of approaching thunder storms. Neither these flashes or direct hits aplenty ever did damage to one of these stations. It barely interrupted service when the station was directly struck.

Best regards, Richard Harrison, KB5WZI

4965. Re: Follow up to Dec. 8th post about "Loop Skywire"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 16:31:26 UTC
From: richardharrison@webtv.net
Message-ID: <20918-3E00A2DE-28@storefull-2318.public.lawson.webtv.net>
Source record: 128904

Dang me. I wrote Alex Ussler. It should have been, Alex Eussler.
Best regards, Richard Harrison, KB5WZI

4966. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 16:43:58 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <atq8kg$4ui$1@slb3.atl.mindspring.net>
Source record: 128903

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E00A167.9030802@ieee.org...
> Peter O. Brackett wrote:
> > For some reason which seems "intuitive" to practicioners of "reflection
> > mechanics" let's
> > now resolve this measure of 200 Joules per liter [arbitrarily?] into two
> > [waves] each
> > carrying 100 Joules per liter.
> > [100 Joules per liter + 100 Joules per liter = 200 Joules per liter]
>
> Can't let you get away with that one, Peter. Halving the number of joules
> per liter is a violation of the boundary conditions. You would have to
bring
> additional neutral fluid in to dilute the existing fluid. This is exactly
> the mistake that Dr. Best makes. You don't realize that you *must*
introduce
> more fluid in order to dilute the original. Dr. Best doesn't realize that
> he *must* introduce more energy in order to support the constructive
> interference involved in his voltage waves. That energy is re-reflected
> energy as can be seen on my web page.
>
> If you don't introduce any more liquid you simply divide the original wave
> into two waves of 2.5 liters/sec with each liter containing 200 joules.
>
> 2.5 * 200 = 500 watts. Two of them equal 1000 watts.
>
> Dr. Best has failed to demonstrate how to take two phase-locked IC-706's,
> each outputting their maximum 100 watts into 50 ohm transmission lines,
i.e.
> V=70.7V at I=1.414A, and superpose those two and only two waves to obtain
> 141.4V at 2.828A for a total of 400 watts. Maybe you can show us how to do
> that, Peter?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
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4967. Re: FM Reception

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 16:44:20 UTC
From: richardharrison@webtv.net
Message-ID: <20913-3E00A5E4-67@storefull-2318.public.lawson.webtv.net>
Source record: 128910

Bill wrote:
"Any ideas?"

Get stations from the web, cable, or from the directions you can access, assuming you don`t want to move or erect an antenna in a good location. You may get a good reflected signaL

An FM portable is often helpful in finding a workable antenna site.

Best regards, Richard Harrison, KB5WZI

4968. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 16:52:33 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <atq94i$q4m$1@slb9.atl.mindspring.net>
Source record: 128906

Cecil:

[snip]
> Can't let you get away with that one, Peter. Halving the number of joules
> per liter is a violation of the boundary conditions. You would have to
bring
> additional neutral fluid in to dilute the existing fluid. This is exactly
> the mistake that Dr. Best makes.
[snip]

Nope, you are dead WRONG here Cecil.

The valance electron cloud in a metallic conductor is, just like the water
in a water pipe,
is completely incompressible. e.g. the number of available charge carriers
in the transmission
system is fixed and additional quantities cannot be introduced.

[cfr Avogadro et al.]

And so... you simply cannot introduce more fluid, e.g. you cannot add any
more electrons
into the complete circuit, unless you change the physical size [i.e. number
of moles of conductor
materail] of the complete closed circuit while it is in operation.

To do this would entail at least one pliers/cutter or soldering iron
operation.

That simply just does not happen in what you have been discussing.

Try again OM!

--
Peter K1PO
Indialantic By-the-Sea, FL

4969. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 16:55:03 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <v01a3g7jidvl8b@corp.supernews.com>
Source record: 128907
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

I thiink the question is why don't the sensors pick up both, and how do the
sensors know which way the wave is travelling?
"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E0099C5.9040605@ieee.org...
> Jason Hsu wrote:
> > Can someone tell me how an SWR meter works? I'm looking at the SWR
> > meter project described at:
> > http://www.arrl.org/members-only/tis/info/pdf/9702033.pdf
> >
> > I know that an SWR meter works by detecting the differences between
> > the forward and reflected powers. In this particular circuit, the
> > forward and reflected powers are sent into an LM3914 chip. I am
> > familiar with the functions of the 3914 chip. The forward power
> > becomes a forward voltage that is used as the high reference voltage
> > level. The reflected power becomes a reflected voltage that becomes
> > the signal that the LM3914 chip tests.
> >
> > The forward power and the reflected power look like they are fed into
> > virtually IDENTICAL circuits. (Notice how both the forward and
> > reflected sides are fed into a Ge diode. And the positive side faces
> > the transmission line for both.) I know that there are couplers in
> > this circuit, but I am having difficulty understanding what's going
> > on. How does this circuit ensure that one part of the circuit
> > responds only to the forward power and that the other part of the
> > circuit only responds to the reflected power?
>
> This one is very easy to understand. The two pickups on the stripline
> are arranged in opposite directions. Each pickup has a 50 ohm load on
> one end and a diode on the other end. The 50 ohm load dissipates the
> coupled wave in one direction and the diode rectifies the coupled wave
> in the other direction. Each pickup is designed to respond to a wave
> traveling in only one direction. The forward sampled voltage is rectified
> and the reflected sampled voltage is rectified before being presented to
> the LM3914 chip, i.e. the LM3914 is working only with DC values.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
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4970. Re: Why a Light Bulb in Series With an Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 17:02:56 UTC
From: Al <aburzynski@swri.nojunk.edu>
Message-ID: <v01ai0mn2adva3@corp.supernews.com>
Source record: 128908

OK guys you convinced me to leave well enough alone. I've had this xcvr for nearly 20 years so no sense pushing a good thing.

I appreciate all the info.

Al
KA5JGV

4971. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 17:19:52 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <kkb10vklh5op8v45l95pjsuefdimkiih9s@4ax.com>
Source record: 128911

On 18 Dec 2002 05:51:48 GMT, tdonaly@aol.com (Tdonaly) wrote:

>What if there aren't any charges, Peter, as in the wave radiating from an
>antenna? You've read enough to know where the energy is in that, right?
>Actually, Cecil has a right to complain. It does seem to violate the
>conservation of energy laws. However, as in the case of the two slit
>experiment that Richard Clark mentioned, although the intensity of the
>light a distance from the slits is proportional to (E1 + E2)^2 there is
>a reason why conservation of energy isn't violated. Do you know what
>it is?
>73,
>Tom Donaly, KA6RUH
>

Hi Tom,

Cecil may be right, but he is certainly not interested in a straight
answer to this Shaggy dog joke.

73's
Richard Clark, KB7QHC

4972. Re: Suppressing RF on the Shield

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 17:26:47 UTC
From: L Caracciolo <larryc@northwest.com>
Message-ID: <3E00AFD7.976DACBE@northwest.com>
Source record: 128909

you don;t say whether this is a wideband antenna or a single freq situation. baluns would help in either case. i've used ferrite beads (over RG-58) to some satisfaction at 220mHz but the best isolation was obtained using a Pawsey stub. I connected a 1/4 wave piece of RG-58 from the center lead at the antenna and soldered the other end of the 1/4 pc to the coax shield, 1/4 wave down from the antenna. Don;t need to use velocity adjustments to the length. Return loss w/o using ferrite beads was about 10 dB, with beads, about 15 dB. Increased to almost 50dB (at antenna resonance) using the Pawsey stub. I used a tracking generator to see the broadband effect of the ferrites and the more narrow-band effect of the isolation stub.

Mike wrote:

> I have been trying to find a low cost solution to RF on coax shield.
> Specifically, I'd like to prevent the shield from looking like a
> radial at the feedpoint of the antenna. Since I'm using LMR600 (solid
> core), coiling the coax to make a choke is not an option (too stiff).
> The cable is also too thick for any but the most expensive (and hard
> to find) large ferrite beads. Using a huge stack of ferrite cores
> would work, but the cost adds up fast. Is there any negative effect
> to simply inserting a ferrite core choke between the coax shield and
> the radial attachment point? This simple solution is curiously
> missing from the ARRL Handbook, and I'm not sure why, unless it causes
> a problem somehow.
>
> Thanks.
>
> --Mike
>
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4973. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 18:01:08 UTC
From: tdonaly@aol.com
Message-ID: <20021218130108.29691.00000077@mb-cv.aol.com>
Source record: 128912

>
>Hi Tom,
>
>Cecil may be right, but he is certainly not interested in a straight
>answer to this Shaggy dog joke.
>
>73's
>Richard Clark, KB7QHC
>

Hi Richard,
You're right. If he were interested in a straight
answer he could read it in any undergraduate physics book.
73,
Tom Donaly, KA6RUH

4974. Re: Re: Suppressing RF on the Shield

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 18:38:51 UTC
From: Mike <"scifiguy at starband dot net">
Message-ID: <qrf10vgm4k4r286qmeif1okdag6ik0e7f6@4ax.com>
Source record: 128913

Thanks, Larry. I'll look into Pawsey stubs for my own education.
However, both feedlines will be used for multiple bands. One will be
used for 6/10/15/20/30/40/80 meters (using a coaxial relay to switch
between a 6BTV and a 6 meter antenna). The other will be used for
2/0.7 meters.

--Mike

On Wed, 18 Dec 2002 09:26:47 -0800, L Caracciolo
<larryc@northwest.com> wrote:

>you don;t say whether this is a wideband antenna or a single freq situation.
>baluns would help in either case. i've used ferrite beads (over RG-58) to some
>satisfaction at 220mHz but the best isolation was obtained using a Pawsey stub. I
>connected a 1/4 wave piece of RG-58 from the center lead at the antenna and
>soldered the other end of the 1/4 pc to the coax shield, 1/4 wave down from the
>antenna. Don;t need to use velocity adjustments to the length. Return loss w/o
>using ferrite beads was about 10 dB, with beads, about 15 dB. Increased to almost
>50dB (at antenna resonance) using the Pawsey stub. I used a tracking generator to
>see the broadband effect of the ferrites and the more narrow-band effect of the
>isolation stub.
>

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4975. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 18:55:17 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E00C495.30904@ieee.org>
Source record: 128914

Richard Harrison wrote:
> CAM wrote:
> "I have a five foot tall live oak tree in my front yard. It was hit by
> lightning but not by the main bolt."
>
> Cecil must have a lightning magnet nearby to draw lightning to such a
> low target, or is it the tallest thing in the area?

It's actually the lowest thing in the yard, lower than my house, lower
than my antennas, lower than the power poles, and lower than the surrounding
trees. Talk about an unlucky tree. Lightning is not perfectly predictable.
I wish I had seen that particular strike. It might have just been a tributary
of the main bolt which might have hit my grounded Rohn 25G tower.
--
cheers, CAM http://www.qsl.net/w5dxp

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4976. Re: Why a Light Bulb in Series With an Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 19:04:01 UTC
From: "J. Keith Carter" <j.keith.carter@sympatico.ca>
Message-ID: <3E00C6A1.5922ED2F@sympatico.ca>
Source record: 128915

Hi Al; I posted the following a while back. I think it answers your query and that of Icom's design reason. Jeith, VE3JKC

Occasionally postings occur regarding the use of the external antenna connection on some Icom rigs. In some cases there are indications of front end overload damage due to the receiving antenna being in close proximity with the transmitting antenna. In the February 1988 issue of QST, Icom published a "TECH TALK" addressing this situation along with a simple schematic using two shunt 1N914 diodes along with a series #47 dial lamp to protect the front end. You can find it on page 90 in an article titled "The challenge of low frequency DX'ing". Keith, VE3JKC.

> My Icom 745 transceiver has a separate antenna input for receive only of the
> 100kHz to 1600kHz range. The antenna input first passes through a light bulb
> (DS1, not a neon bulb), then the other end of the light bulb connects to two
> resistors, a 10 ohm to ground and a 47 ohm to a low pass filter. This light
> bulb and two resistors make up a 20 db attenuator, according to the Icom
> manual.
>
> I have two questions regarding this attenuator. First why a light bulb? A
> form of variable resistor? Second, can I remove this circuit and just
> connect the antenna directly to the low pass filter? My goal is to improve
> reception in the 200kHz to 500kHz range. Ideally I would place a switch at
> this location in case the attenuator is really needed for LF or AM-band
> reception.
>
> Thank you.
> Al
> KA5JGV

4977. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 19:17:49 UTC
From: richardharrison@webtv.net
Message-ID: <20913-3E00C9DD-79@storefull-2318.public.lawson.webtv.net>
Source record: 128820

CAM wrote:
"When we add the two voltages we get 200V at zero deg and 800 joules / sec.

Cecil knows not to believe in magic. It is only a trick.

A-C is not magic. Its effective power reguires the same input and produces the same output as d-c. The prime mover takes the same horsepower and the lights burn as bright from either a-c or d-c.

The peak a-c voltage is 1.414 times rms.
The peak a-c current is 1.414 times rms.
Peak power is peak volts times peak amps. Peak power is twice average power, sometimes incorrectly called rms power, since 1.414 squared is 2.

Average d-c power is volts times amps as there is no difference between average and peak. The a-c power relations above are based on real power, not apparent power.

There is no way to correctly combine volts and amps vectorially or arithmetically to increase power in a system over its input, unless power is accumulated as energy and released in high powered spurts or power which would be broadcast over a large area or in a large volume is instead concentrated to give a higher effective power in a smaller space. Again, no magic, the energy involved remains the same.

It`s nature`s rule that we don`t create or destroy energy. There is no way to add 100W to 100W and get 400W, honestly, in real time, and exerted in the same space.

Best regards, Richard Harrison, KB5WZI

4978. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 19:23:28 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E00CB30.4080105@ieee.org>
Source record: 128917

Peter O. Brackett wrote:
> The valance electron cloud in a metallic conductor is, just like the water
> in a water pipe,
> is completely incompressible. e.g. the number of available charge carriers
> in the transmission
> system is fixed and additional quantities cannot be introduced.

That's exactly what I am saying, Peter. It is Dr. Best who needs to discover that the 50 joules/sec of energy/sec that he creates with his 75W+8.33W=133.33W equation is actually there all the time in the form of re-reflected energy. In his steady-state examples, his source is constant power, constant voltage, and constant current (all average). There just ain't any more power available. Dr. Best must make do with what is already there existing in the transmission line at the time of superposition. There is 50W of reflected power that Dr. Best wants us to ignore so he can claim it is not re-reflected power. 75W+8.33W+50W=133.33W. He admits that 50 joules/sec of energy/sec is reflected power in the two rearward traveling waves whose voltages and currents get canceled.

Dr. Best says : "With any matching device or circuit, a steady-state impedance match occurs through the cancellation of multiple rearward traveling waves at the match point."

These two rearward traveling canceled waves are reflected energy. The direction of their energy flow is reversed through wave cancellation. That makes the associated energy re-reflected energy. Yet Dr. Best turns right around and contradicts himself.

He says: "... the steady-state impedance match does not occur through a total re-reflection of the reflected wave."

One of his statements has to be false. Which one do you think it is? Have you read the wave stuff on my web page?

I realize that discussing reflected power with you is like discussing evolution with a Southern Baptist Preacher. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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4979. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 19:27:44 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E00CC30.9050707@ieee.org>
Source record: 128918
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Henry Kolesnik wrote:
> I thiink the question is why don't the sensors pick up both, and how do the
> sensors know which way the wave is travelling?

I thought I explained that. With one pickup, the forward wave sees a ~50
ohm resistor and is dissipated while the reflected wave sees a diode and
is rectified, filtered, and routed to the LM3914. With the other pickup,
the forward wave sees a diode and is rectified, filtered, and routed to
the LM3914 while the reflected wave sees a ~50 ohm resistor and is dissipated.
--
cheers, CAM http://www.qsl.net/w5dxp

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4980. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 19:30:03 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E00CCBB.90300@ieee.org>
Source record: 128819

Tdonaly wrote:
> You're right. If he were interested in a straight
> answer he could read it in any undergraduate physics book.

My questions are rhetorical designed to illustrate that
Dr. Best hasn't read those undergraduate physics books.
--
cheers, CAM http://www.qsl.net/w5dxp

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4981. Re: Why a Light Bulb in Series With an Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 19:34:43 UTC
From: L Caracciolo <larryc@northwest.com>
Message-ID: <3E00CDD3.7EBE80D6@northwest.com>
Source record: 128916

But, with the back-to-back diodes, there's greater chance of birdies being generated. A manual (or automatic) coaxial T/R switch would allow for a cleaner rx condition.
==========
"J. Keith Carter" wrote:

> Hi Al; I posted the following a while back. I think it answers your query and
> that of Icom's design reason. Jeith, VE3JKC
>
> Occasionally postings occur regarding the use of the external antenna
> connection on some Icom rigs. In some cases there are indications of
> front end overload damage due to the receiving antenna being in close
> proximity with the transmitting antenna. In the February 1988 issue of
> QST, Icom published a "TECH TALK" addressing this situation along with a
> simple schematic using two shunt 1N914 diodes along with a series #47
> dial lamp to protect the front end. You can find it on page 90 in an
> article titled "The challenge of low frequency DX'ing". Keith, VE3JKC.
>
> > My Icom 745 transceiver has a separate antenna input for receive only of the
> > 100kHz to 1600kHz range. The antenna input first passes through a light bulb
> > (DS1, not a neon bulb), then the other end of the light bulb connects to two
> > resistors, a 10 ohm to ground and a 47 ohm to a low pass filter. This light
> > bulb and two resistors make up a 20 db attenuator, according to the Icom
> > manual.
> >
> > I have two questions regarding this attenuator. First why a light bulb? A
> > form of variable resistor? Second, can I remove this circuit and just
> > connect the antenna directly to the low pass filter? My goal is to improve
> > reception in the 200kHz to 500kHz range. Ideally I would place a switch at
> > this location in case the attenuator is really needed for LF or AM-band
> > reception.
> >
> > Thank you.
> > Al
> > KA5JGV

4982. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 19:54:24 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E00D270.6040801@ieee.org>
Source record: 128821

Richard Harrison wrote:
> It`s nature`s rule that we don`t create or destroy energy. There is no
> way to add 100W to 100W and get 400W, honestly, in real time, and
> exerted in the same space.

So Richard, what do you think about the following quote from Dr. Best's QEX article? "In this case, the forward source power of 92.831 W combines in-phase with the re-reflected power of 0.555 W, resulting in a total forward-traveling power of 107.736 W."

I think the statement should be: The forward source power of 92.831 W combines with the re-reflected power of 14.905 W, resulting in a total forward-traveling power of 107.736 W.
--
cheers, CAM http://www.qsl.net/w5dxp

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4983. Anyone Recognize this Old Logo?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 20:08:07 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E00D5A7.1040002@ieee.org>
Source record: 128822

My 90 year old aunt is in the nursing home to stay. We are selling her house and yesterday I rummaged through a bunch of old memories from my childhood. I found a six-tube AM radio with a sticker on it that read: "Shorty Lambert Radio Service, Amateur Radio Station W5OLV". The hand-written date is 1/18/54. Shorty was my Ham Radio mentor back in the early 50's and administered my Conditional Class exam in 1952. That radio brought tears to my eyes.

The radio does not have a brand name on it but it has the company logo. Does anyone recognize it and remember the company? The logo is a circle with horizontal wings. Lightning bolts are coming out from the wing tips. Inside the center circle is another lightning bolt slashing across the circle with a script 'E' on one side and a script 'L' on the other side. It is model number 2701. Help?
--
cheers, CAM http://www.qsl.net/w5dxp

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4984. Re: FM Reception

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 20:11:26 UTC
From: Harris <aharris@bookworm.suffolk.lib.ny.us>
Message-ID: <OD4M9.1114$io.48713@iad-read.news.verio.net>
Source record: 128823

Bill <wgtp1@rcn.com> wrote:
> I live in a high rise co-op just outside NYC & am having a hard time getting
> FM recption any ideas?...I face east away from the city.....Thanx

North Shore Towers? Lots of high power paging transmitters, etc. on the roof. Does the co-op provide a community TV antenna connection? That might provide FM signals. Otherwise, experiment with indoor antenna placement.

Art Harris N2AH

4985. Re: New to this: Experimenting with tv antenna construction (Channel specific).

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 20:33:44 UTC
From: Harris <aharris@bookworm.suffolk.lib.ny.us>
Message-ID: <IY4M9.1119$io.48713@iad-read.news.verio.net>
Source record: 128824

Don <dgilbert@nascospg.com> wrote:
> I am thinking of making a channel specific beam antenna to pull in a
> distant station or two. I found a program on the net where you enter
> the desired frequency in mhz and it tells you the size and spacing of
> the elements. How much gain would an antenna such as this typically
> have for say channel 7? I have a roof mounted top of the line Radio
> shack antenna on a tower and have two stations over 100 miles away
> that the sudio comes in on sometimes but not the picture. They are
> channel 7 and 19. I thought of playing around and making a specific

Sounds like you've got a fairly decent antenna now. If you're not
getting a picture at all, I think you've got a LONG way to go.

What's the terrain like between you and the stations? How high is your
antenna now? If it's only about 30 feet above ground, you might have to
put up a real tower (70 feet or more) in addition to a high gain antenna.
And even then, there's no guarrantee.

The gain of a yagi at a particular frequency, is a function of boom length
(assuming good design). Long booms with lots of elements have lots of
gain.

Art Harris N2AH

4986. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 20:40:57 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <r3n10v0bsfk363jppmtkr9d7kb04t1srbl@4ax.com>
Source record: 128825

On Wed, 18 Dec 2002 13:30:03 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Tdonaly wrote:
>> You're right. If he were interested in a straight
>> answer he could read it in any undergraduate physics book.
>
>My questions are rhetorical designed to illustrate that
>Dr. Best hasn't read those undergraduate physics books.

Hi Cecil,

That doesn't prove YOU apply that theory correctly, unfortunately.
Your "rhetoric" is just as I described it, a shaggy dog joke. You've
offered to warn us in the past with a smiley face. None was found
offered, and your postings to this topic are all suspect.

You really wonder why you cannot draw in converts?

73's
Richard Clark, KB7QHC

4987. Re: Stupid antenna question...

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 20:49:30 UTC
From: fractenna@aol.com
Message-ID: <20021218154930.17973.00000326@mb-mv.aol.com>
Source record: 128826

>but basically i don't think you will be able to generate a beamwidth
>of 4-5 degrees with only 4 elements.
>

Hi Dave--

He can do it; in fact he'll get many beams that are that narrow;-) because...

It will be challenging to evade grating lobes with such sparse coverage.

In other words, the sidelobes will be almost identical to the 'main' lobe.

The 4-5 degree beamwidth will happen when the max separation is of order 10
wavelengths.

73,
Chip N1IR

4988. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 21:15:35 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E00E577.6060404@ieee.org>
Source record: 128827

Richard Clark wrote:
> You really wonder why you cannot draw in converts?

It's not a religion, Richard. I'm just trying to get EE's
to remember what they learned in their undergraduate courses.
"75W + 8.33W = 133.33W" is a religion complete with miracles.
--
cheers, CAM http://www.qsl.net/w5dxp

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4989. Antenna advice for a Beginner in San Diego Area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 21:32:06 UTC
From: Joseph Stahley 3rd <jestahley3@cox.net>
Message-ID: <qP5M9.3502$6k.136488@news1.west.cox.net>
Source record: 128828

Is there anyone in the San Diego area (I live in Santee) that can help me with shortwave reception problems? I currently have a Radio shack dx-402 to learn with, and I also have a bearcat bc895xlt scanner. The bearcat scanner is connected to a radio shack discone outdoor antenna in which i get really good reception for my scanner. But my shortwave is a different story, I get alot of interference from a radio station close by (KCBQ) and I would like to use the existing antenna to tap into to recieve shortwave? How can I go about doing this and what can I do about the interference coming from that radio station and my computers I have.

Thx,

Joseph Stahley
jestahley3@cox.net

4990. Re: FS C Band Down Converters Unused

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 21:55:00 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <fkr10v0l3af12481jdij7snscq5rp89mdq@4ax.com>
Source record: 128829

On 18 Dec 2002 08:24:11 GMT, tonys2@aol.com (TonyS2) wrote:

>View at www.pearlone.com if interested

The site requires a plug in...I never down load plugs ins from an
unknown site.

Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)

4991. Re: Anyone Recognize this Old Logo?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 21:55:56 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <v01rnbr1l5iaa9@corp.supernews.com>
Source record: 128830

It is an Electronic Lab receiver and a Sam's 4-28 will give you all the
schematics etc you will ever need.

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E00D5A7.1040002@ieee.org...
> My 90 year old aunt is in the nursing home to stay. We are selling
> her house and yesterday I rummaged through a bunch of old memories
> from my childhood. I found a six-tube AM radio with a sticker on
> it that read: "Shorty Lambert Radio Service, Amateur Radio Station
> W5OLV". The hand-written date is 1/18/54. Shorty was my Ham Radio
> mentor back in the early 50's and administered my Conditional Class
> exam in 1952. That radio brought tears to my eyes.
>
> The radio does not have a brand name on it but it has the company
> logo. Does anyone recognize it and remember the company? The logo
> is a circle with horizontal wings. Lightning bolts are coming out
> from the wing tips. Inside the center circle is another lightning
> bolt slashing across the circle with a script 'E' on one side and
> a script 'L' on the other side. It is model number 2701. Help?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
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4992. Re: Anyone Recognize this Old Logo?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 22:10:13 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E00F245.7070402@ieee.org>
Source record: 128831

Fred Hambrecht Sr. wrote:
> It is an Electronic Lab receiver and a Sam's 4-28 will give you all the
> schematics etc you will ever need.

Thanks a bunch, Fred.
--
cheers, CAM http://www.qsl.net/w5dxp

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4993. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 22:13:49 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <99s10vc13bepuqdsueni09cf0b0m89hmu7@4ax.com>
Source record: 128832

On Wed, 18 Dec 2002 15:15:35 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>I'm just trying to get EE's
>to remember what they learned in their undergraduate courses.

Hi Cecil,

You have succeeded only by your failing arguments not observing
conservation of energy conforming to:
>The mother science of RF, Optics, has always had the answer:
> "Optics," Miles Klein, John Wiley & Sons,
> Chptr. 5.2 "Two-Beam Interference"
>page 185 shows illustration for "Intensity Distribution" that you can
>do for yourself with simple math:
> I = 2 * I1 * (1 + cos(phi2 - phi1 - delta))
> ave(I) = 2*I1 for an integral number of waves
> where:
> I: The intensity over the variation in phase (delta)
> I1: The intensity of each, coherent source (being equal)
> phi2: source2 phase (fixed over interval of delta)
> phi1: source1 phase (fixed over interval of delta)
> delta: vary phase to observe full 360ï¿½ interference pattern
You have not affirmed this knowledge having been part of your
curriculum (most EE's are required to take Physics which contains this
material). As such I must respond that, yes, your education was shy
of the full topic; or that you fail to recall it. Either way yields
to the conclusion that you inappropriately apply the argument of
conservation of energy. I have pointed this out in more than one
example, drawn from your own material, to no obvious response. The
source above is authoritative - you admittedly have none to offer.

Cecil, you cannot name one correspondent here that either understands,
affirms or confirms your understanding in these matters. Wonder why
still?

73's
Richard Clark, KB7QHC

4994. Re: Anyone Recognize this Old Logo?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 22:17:20 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <v01svg68or801@corp.supernews.com>
Source record: 128833

A bit more info, the radio is circa 1946. Glad my arcane knowledge is of
some help.

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E00F245.7070402@ieee.org...
> Fred Hambrecht Sr. wrote:
> > It is an Electronic Lab receiver and a Sam's 4-28 will give you all the
> > schematics etc you will ever need.
>
> Thanks a bunch, Fred.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
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4995. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 22:22:37 UTC
From: richardharrison@webtv.net
Message-ID: <21048-3E00F52D-21@storefull-2317.public.lawson.webtv.net>
Source record: 128834

Henry Kolesnik wrote:
"I think the question is why don`t the sensors pick up both (directions of travel)---."

Wires are waveguides. Wire currents generate waves and vice versa.

A wave traveling on wires will generate a wave on a parallel circuit. If the parallel circuit is terminated in its surge impedance (Zo), a resistance, this induced wave will be absorbed in the resistance (a resistor) and converted to heat.

A wave traveling in the opposite direction can be converted to a reading without interference from the absorbed wave.

Best regards, Richard Harrison, KB5WZI

4996. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 22:45:48 UTC
From: richardharrison@webtv.net
Message-ID: <21047-3E00FA9C-90@storefull-2317.public.lawson.webtv.net>
Source record: 128837

CAM wrote:
"The forward source power of 92.831 W combines with the re-reflected power of 14.905 W, resulting in a total forward-traveling power of 107.736 W."

Bird, CAM and I all agree.

Best regards, Richard Harrison, KB5WZI

4997. Re: FS C Band Down Converters Unused

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 22:57:33 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <w37M9.4899$pS6.1025111@news20.bellglobal.com>
Source record: 128835

"Roger Halstead"
> >View at www.pearlone.com if interested
> The site requires a plug in...I never down load
> plugs ins from an unknown site.

Flash - 'unknown' ?
www.macromedia.com/software/flash/about/

While you're at it...
www.macromedia.com/software/shockwaveplayer/

'Standard equipment' if you're got kids. :-)

4998. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 23:04:21 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E00FEF5.1050004@ieee.org>
Source record: 128836

Richard Clark wrote:
> I have pointed this out in more than one
> example, drawn from your own material, to no obvious response. The
> source above is authoritative - you admittedly have none to offer.

Does the above source agree with me or not? I have a very hard time trying to understand what you are trying to say, Richard. Could you try to be a little more down to earth and a little less cloud-9ish in what you say? I gather that you agree with me about conservation of energy rather than with 75 joules + 8.33 joules = 133.33 joules.

> Cecil, you cannot name one correspondent here that either understands,
> affirms or confirms your understanding in these matters. Wonder why
> still?

I'm working on it - stand by. I suspect some are unwilling to step into the whirlwind and others are too busy to bother. I also have a potential article being reviewed by QEX and have been told that revealing the contents of that article in a public forum may cause the editors to reject it for publication in QEX as they prefer original material.

Note that Galileo didn't have much support either.
--
cheers, CAM http://www.qsl.net/w5dxp

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4999. Re: Why a Light Bulb in Series With an Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 23:21:39 UTC
From: "J. Keith Carter" <j.keith.carter@sympatico.ca>
Message-ID: <3E010303.8727B036@sympatico.ca>
Source record: 128838

I hear what you're saying Larry, but I think if you check any Icom radio with the separate receiver antenna input, Icom have stuck with this design. I know my IC-756 has it and I sure don't hear any birdies. I think Yaesu does as well. Keith, VE3JKC.

L Caracciolo wrote:

> But, with the back-to-back diodes, there's greater chance of birdies being
> generated. A manual (or automatic) coaxial T/R switch would allow for a cleaner rx
> condition.
> ==========
> "J. Keith Carter" wrote:
>
> > Hi Al; I posted the following a while back. I think it answers your query and
> > that of Icom's design reason. Jeith, VE3JKC
> >
> > Occasionally postings occur regarding the use of the external antenna
> > connection on some Icom rigs. In some cases there are indications of
> > front end overload damage due to the receiving antenna being in close
> > proximity with the transmitting antenna. In the February 1988 issue of
> > QST, Icom published a "TECH TALK" addressing this situation along with a
> > simple schematic using two shunt 1N914 diodes along with a series #47
> > dial lamp to protect the front end. You can find it on page 90 in an
> > article titled "The challenge of low frequency DX'ing". Keith, VE3JKC.
> >
> > > My Icom 745 transceiver has a separate antenna input for receive only of the
> > > 100kHz to 1600kHz range. The antenna input first passes through a light bulb
> > > (DS1, not a neon bulb), then the other end of the light bulb connects to two
> > > resistors, a 10 ohm to ground and a 47 ohm to a low pass filter. This light
> > > bulb and two resistors make up a 20 db attenuator, according to the Icom
> > > manual.
> > >
> > > I have two questions regarding this attenuator. First why a light bulb? A
> > > form of variable resistor? Second, can I remove this circuit and just
> > > connect the antenna directly to the low pass filter? My goal is to improve
> > > reception in the 200kHz to 500kHz range. Ideally I would place a switch at
> > > this location in case the attenuator is really needed for LF or AM-band
> > > reception.
> > >
> > > Thank you.
> > > Al
> > > KA5JGV

5000. Re: Knife/Blade Switches Losses ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 23:37:30 UTC
From: Ron <ronn@iastate.edu>
Message-ID: <Xns92E8B350EFE0ronniastateedu@207.225.159.7>
Source record: 128839

Hi, I'm really new to HAM radio (just got my license a week ago), and this has been an interesting thread. Now, I have a question:

Could we use an antenna switch put in backwards to disconnect the antenna from the transceiver? That is, the "input" end of the switch would be connected to the feed line and one "output" would go to the transceiver and the other would go to ground. Then, when we want to use the antenna, switch it to the transceiver and when we are done, switch it to ground.

Would this mess up the impedence matching? Would it help protect from high static charges? Is there something else that we should consider about this idea?

Thanks,
Ron (KC0OQA)

"Gary" <dodogrp@dodo.com.au> wrote in
news:3dffbe54@news.comindico.com.au:

> And it doesn't have to hit ANY antenna to do damage. A friend of mine
> was in a firetower for the local Country Fire Brigade, he is a radio
> enthusiast and had a scanner up there with him at the time. Not sure
> what antenna he had but it was either a discone or a vertical of some
> sort. it was mounted on a pole fixed to the metal tower leg which was
> pretty well grounded. Lightning approaching, so he unplugged the rg58
> and sat it on the bench. Lightning was a LONG way off and going around
> him but not long after he spotted the lightning he heard a random
> ticking noise. Upon investigation he found that a spark was jumping
> from the centre conductor pin to the "earth" of the connector!!
> Buildup of static in the air. Thats why you hear lightning arrestors
> "buzz" when there is a storm around.

5001. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-18 23:47:21 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <1b120vc7st0scc0ce5aviq0uk2ba0g3i1r@4ax.com>
Source record: 128840

On Wed, 18 Dec 2002 17:04:21 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Richard Clark wrote:
>> I have pointed this out in more than one
>> example, drawn from your own material, to no obvious response. The
>> source above is authoritative - you admittedly have none to offer.
>
>Does the above source agree with me or not?

Hi Cecil,

Your question is pretentious. You are challenging a reputable source
to agree with you and only accepting it if it does? That, buckaroo,
is called shopping for a citation. You've admitted you have no
references for your assertions so your challenges have no weight
behind them. A simple glance at the quote, and a pass through the
math is sufficient proof for the rest of this board, your requirements
exceed your own performance.

>
>> Cecil, you cannot name one correspondent here that either understands,
>> affirms or confirms your understanding in these matters. Wonder why
>> still?
>
>I'm working on it - stand by. I suspect some are unwilling to step
>into the whirlwind and others are too busy to bother.

I suspect you are dreaming - prove me wrong. At best you mock them as
a quivering crew, without enough courage of your convictions or too
indifferent to stand them as their own. For good reason too.

> I also have a
>potential article being reviewed by QEX and have been told that revealing
>the contents of that article in a public forum may cause the editors to
>reject it for publication in QEX as they prefer original material.

And the editors? I spit on them if that is your best excuse.
Publication in a vanity rag hardly rises to the distinction of proof.
This goes on the wall next to the notice of the fractal challenge
results.

>
>Note that Galileo didn't have much support either.

Try dropping your balls off the Tower of Pisa and then we'll compare
you to Galileo. ;-)

73's
Richard Clark, KB7QHC

5002. Re: Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 00:44:40 UTC
From: k3bu@aol.com
Message-ID: <20021218194440.28328.00000277@mb-fo.aol.com>
Source record: 128841

Ari wrote:

>>To make this work I need calculable parameters which are important for
>>the average antenna user. So as a first thought I used Forward-Gain,
>>F/B-ratio and F/R-ratio (for a user-specified Elev/Azim angle of
>>interest) as the parameters which say something about how good a
>>certain antenna performs.

One more important parameter for antenna optimization is the impedance. I always try to design the antenna with desired properties plus 50 (or 75) ohm impedance in order to avoid the matching device loses.
So the main parameters for optimization should be forward gain, F/R, impedance and choice of their ratio for optimization.

73 Yuri

5003. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 00:55:48 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E011914.2090803@ieee.org>
Source record: 128842

Richard Clark wrote:
> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>Does the above source agree with me or not?
>
> Your question is pretentious.

Why? It's a simple yes/no question. I don't have the reference. Does the reference disagree with me or not? If so, please quote the part that says 75 joules plus 8.33 joules equals 133.33 joules.

> I suspect you are dreaming - prove me wrong.

I suspect you agree with me, Richard, from things you have said. You still haven't answered two simple questions. Have you read Dr. Best's QEX article? Have you read my web pages?

> And the editors? I spit on them if that is your best excuse.

Then I guess I better not tell you who they are. :-) Exactly what is it about 75 joules + 8.33 joules not equaling 133.33 joules that you don't understand?
--
cheers, CAM http://www.qsl.net/w5dxp

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5004. Re: Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 00:58:30 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0119B6.5060702@ieee.org>
Source record: 128843

Yuri Blanarovich wrote:
> One more important parameter for antenna optimization is the impedance. I
> always try to design the antenna with desired properties plus 50 (or 75) ohm
> impedance in order to avoid the matching device loses.

You may be missing a lot. All a 4050 ohm, one wavelength dipole needs for
a perfect match to 50 ohms is 1/4WL of 450 ohm line.
--
cheers, CAM http://www.qsl.net/w5dxp

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5005. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 01:02:41 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <RU8M9.392510$P31.144418@rwcrnsc53>
Source record: 128844

That's because there isn't any unless you are in commercial airspace.
"'Doc" <w5lz@cwis.net> wrote in message news:3E003033.BE655F65@cwis.net...
>
>
> CW,
> Or, when you plan to go above a certain height, don't
> remember what that is though.
> 'Doc

5006. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 01:05:47 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ik620vkutlt2pquee24p4npvjsra064f16@4ax.com>
Source record: 128845

On Wed, 18 Dec 2002 18:55:48 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Richard Clark wrote:
>> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>>Does the above source agree with me or not?
>>
>> Your question is pretentious.
>
>Why? It's a simple yes/no question. I don't have the reference.

:-)

5007. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 01:06:28 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <atr62l$70i$1@slb9.atl.mindspring.net>
Source record: 128846
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Cecil:

[snip]
"> I thought I explained that. With one pickup, the forward wave sees a ~50
> ohm resistor and is dissipated while the reflected wave sees a diode and
> is rectified, filtered, and routed to the LM3914. With the other pickup,
> the forward wave sees a diode and is rectified, filtered, and routed to
> the LM3914 while the reflected wave sees a ~50 ohm resistor and is
dissipated.
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

No you didn't!

You just explained what it does, not how or why it senses the direction of
the waves.

Sigh!

--
Peter K1PO
Indialantic By-the-Sea, FL

5008. Re: Follow up to Dec. 8th post about "Loop Skywire"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 01:23:25 UTC
From: rckchp@comcast.net
Message-ID: <6dc33f40.0212181723.33f9b93a@posting.google.com>
Source record: 128848

He was in Ushuaia, LU8XP

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<13406-3E008081-16@storefull-2316.public.lawson.webtv.net>...
> Rich, K2CPE wrote:
> "---I just worked Bolivia and Argentina (Tierra del Fuego) using my K2
> with autotuner at 5 watts."
>
> Rich has done well with a random loop.
>
> I`ve lived and worked in Bolivia and Tierra del Fuego. I put in a lot of
> radios and antennas in both places.
>
> Did the Argentine say where he was? Ushuaia (the southernmost city in
> the world), Rio Grande, San Sebastian, or some estancia? When I lived
> there, there was only one ham, Padre Munoz, who lived near Rio Grande.
> He is gone now, or he would be the oldest man alive.
>
> I erected a rhombic near Rio Grande, and it was aimed at Buenos Aires.
> It worked like crazy and I expect it is still in use after 40 uyears.
>
> Best regards, Richard Harrison, KB5WZI

5009. Re: Why a Light Bulb in Series With an Antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 01:24:11 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <v027s52ef8s1ef@corp.supernews.com>
Source record: 128847

Some old radios had such a scheme. I was on location in a place far south many years ago and had gone to bed when, just before drifting to the land of Nod, the little room where I slept and kept the radio started to blink. Another operator, some distance away, had fired up on CW and my still-connected antenna was picking up enough energy to cause the protection lamp to glow. Mind, was a serious antenna with a saltwater return.
The non-linear properties of a light bulb have been used in oscillators to stabilize their amplitude. The most famous use was by HP in their first product, the HP200 audio oscillator. Look inside and you will see a 7.5 watt light bulb in a porcelain socket.
73 Mac N8TT
--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

> Probably so. I would guess that it's there as a sort of dynamic
> limiter, to provide the downstream components (e.g. the 10- and 47-ohm
> resistors) from stress if the receive-only antenna is subjected to
> very high levels of RF.
>
> This might occur, for example, if you have a receive-only antenna on
> this input, and a transmit/receive antenna located somewhere nearby.
> When you key up your transmitter, the proximity of the receive antenna
> could result in a lot of power coupling back into the rig. In the
> absence of the light bulb, almost all of this power would be
> dissipated in the 10- and 47-ohm resistors and in the LPF, and they
> might overheat.
>
> Since the light bulb filament has a high temperature coefficient of
> resistance, the bulb would act as a limiter in these cases. If the
> receive antenna is hit with a lot of power, most of it will end up
> being dissipated in the light bulb (since it's apparently the high
> side of the 20 dB attenuator), the filament will heat up, the
> resistance will increase, the attenuation ratio will increase, and the
> power input from the antenna will probably decrease to some extent as
> well. It's a nice negative-feedback system.
>

5010. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 01:41:09 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <Us9M9.391310$%m4.123574@rwcrnsc52.ops.asp.att.net>
Source record: 128849
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Yes he did. Read it again (several times if necessary).
"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:atr62l$70i$1@slb9.atl.mindspring.net...
> Cecil:
>
> [snip]
> "> I thought I explained that. With one pickup, the forward wave sees a
~50
> > ohm resistor and is dissipated while the reflected wave sees a diode and
> > is rectified, filtered, and routed to the LM3914. With the other pickup,
> > the forward wave sees a diode and is rectified, filtered, and routed to
> > the LM3914 while the reflected wave sees a ~50 ohm resistor and is
> dissipated.
> > --
> > cheers, CAM http://www.qsl.net/w5dxp
> [snip]
>
> No you didn't!
>
> You just explained what it does, not how or why it senses the direction of
> the waves.
>
> Sigh!
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL
>
>

5011. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 01:46:25 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <atr8mi$88u$1@slb5.atl.mindspring.net>
Source record: 128850

Richard:

[snip]
> Wires are waveguides. Wire currents generate waves and vice versa.
>
> A wave traveling on wires will generate a wave on a parallel circuit. If
> the parallel circuit is terminated in its surge impedance (Zo), a
> resistance, this induced wave will be absorbed in the resistance (a
> resistor) and converted to heat.
>
> A wave traveling in the opposite direction can be converted to a reading
> without interference from the absorbed wave.
>
> Best regards, Richard Harrison, KB5WZI
[snip]

Come on Richard, all that *explanation* does is say "what" the
directional coupler does, it does not tell how or why it works!

I really want to know?

--
Peter K1PO
Indialantic By-the-Sea, FL

5012. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 02:06:55 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <atr9k0fu1@slb2.atl.mindspring.net>
Source record: 128851

Cecil:

[snip]
> I realize that discussing reflected power with you is like discussing
> evolution with a Southern Baptist Preacher. :-)
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

Heh, heh... hey, only in the steady state! I'm actually on your page for transients!
When energy is surging up and down the line to charge it up, rather than across it.

Aside
--
It's only during the transient regime that energy surges up and down transmission
lines, in the steady state when the line's distributed reactances are fully charged,
all of that stored energy just surges back and forth between the distributed inductance
and capacitance, i.e. is sloshes sort of sidewise on the line rather than lengthwise. And
BTW... all the same formulas and equations apply during both transient and steady
state and at all frequencies all the way down to and including DC steady state.
Pretty simple, needs no hand waving and re-re-re-re *splanations*.
--

And... Hey I'd like to help you to convince Dr. Best, but I can't reallyhelp with your
Steve Best problems... you see, although I like Dr. Best, and I believe, unlike many
Ph.D.'s, he is not over there on the "dark side" asking us to believe just because he
got the Ph.D. and we didn't, but that he's actually "with us".

However in his efforts to impress with his command of mathematical pyrotechnics,
his *splanations* become far too complex for my liking, my eyes go blurry, my mind
goes blank, and I loose him after the first 3 equations, and the first couple of re-re-re
reflections, or so... By that time he could be claiming perpetual motion, I

just wouldn't
know, cuz I'm asleep.

Why Dr. Best, Walter Maxwell, and a few others make such simple things so complicated I'll never understand. I'm sure that no one, except perhaps yourself, has
the time or energy to follow their strained, convoluted, obtuse and obscure arguments.

BTW... are Southern Baptists operating in the steady state or the transient regime?

Happy Holidays,

--
Peter K1PO
Indialantic By-the-Sea, FL

5013. Re: Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 02:10:49 UTC
From: k3bu@aol.com
Message-ID: <20021218211049.10405.00000312@mb-ba.aol.com>
Source record: 128852

>
>You may be missing a lot. All a 4050 ohm, one wavelength dipole needs for
>a perfect match to 50 ohms is 1/4WL of 450 ohm line.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>

Yep, but here we are talking about optimization feature for arrays in the software, how much optimization can your one wave dipole take? (Wire diameter, color? :-)

Most widely used impedances of feeder cables are 50 or 75 ohm. This is what I try to achieve with array design. If it is not possible, then of course, matching device should be used to take advantage of antenna properties and effcient power transfer. But in many situations it is possible by little bit more of tweaking to achieve desired impedance as well as other good properties.

73 Yuri, Razor BUm

5014. Re: New to this: Experimenting with tv antenna construction (Channel specific).

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 03:13:08 UTC
From: John DeGood <nu3e@arrl.net>
Message-ID: <3E013944.9050706@arrl.net>
Source record: 128853

There's a really neat reference on the web at:

http://www.ardman.net/

Click on the "Free TV Coverage Maps" scrolling banner at the top of the
page, then enter your zipcode (or latitude/longitude) and press the
"Submit Query" button. It will return the distance, bearing, estimated
field strength, and signal grade for every station within a given radius
of your location.

John NU3E

Harris wrote:
> Don <dgilbert@nascospg.com> wrote:
>
>>I am thinking of making a channel specific beam antenna to pull in a
>>distant station or two. I found a program on the net where you enter
>>the desired frequency in mhz and it tells you the size and spacing of
>>the elements. How much gain would an antenna such as this typically
>>have for say channel 7? I have a roof mounted top of the line Radio
>>shack antenna on a tower and have two stations over 100 miles away
>>that the sudio comes in on sometimes but not the picture. They are
>>channel 7 and 19. I thought of playing around and making a specific
>
>
> Sounds like you've got a fairly decent antenna now. If you're not
> getting a picture at all, I think you've got a LONG way to go.
>
> What's the terrain like between you and the stations? How high is your
> antenna now? If it's only about 30 feet above ground, you might have to
> put up a real tower (70 feet or more) in addition to a high gain antenna.
> And even then, there's no guarrantee.
>
> The gain of a yagi at a particular frequency, is a function of boom length
> (assuming good design). Long booms with lots of elements have lots of
> gain.
>
> Art Harris N2AH

5015. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 03:18:00 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E013A68.2030700@ieee.org>
Source record: 128854

Peter O. Brackett wrote:
> It's only during the transient regime that energy surges up and down
> transmission
> lines, in the steady state when the line's distributed reactances are fully
> charged,
> all of that stored energy just surges back and forth between the
> distributed inductance
> and capacitance, i.e. is sloshes sort of sidewise on the line rather than
> lengthwise.

If it only "sloshes sort of sidewise", how come I can see ghosting in a
1000 ft section of unmatched TV feedline?

> Why Dr. Best, Walter Maxwell, and a few others make such simple things so
> complicated I'll never understand. I'm sure that no one, except perhaps
> yourself, has
> the time or energy to follow their strained, convoluted, obtuse and obscure
> arguments.

I was curious about their exact area of disagreement and the subsequent
resulting political power structure. I'm probably not the first engineer
to take a close look at an impedance discontinuity, but I am not aware
of any references on this exact subject. Of course, I don't have access
to a lot of references.
--
cheers, CAM http://www.qsl.net/w5dxp

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5016. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 03:28:31 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E013CDF.7070707@ieee.org>
Source record: 128855

Richard Clark wrote:

> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>Why? It's a simple yes/no question. I don't have the reference.
>
> :-)

Does your reference indicate what happens in the non-glare
coating on picture glass? If so, exactly the same thing
happens at a matched impedance discontinuity. Wave cancellation
of two reflected waves happens. The only question is: Where does
the energy in the canceled waves go? I have presented a multiple
choice question that nobody has answered:

When two waves, traveling in the same direction in a transmission
line, cancel, the energy in those two waves:
1. Keeps going the same direction
2. Reverses direction
3. Stands still and accumulates
4. Disappears from the system
5. Other, please explain _____
--
cheers, CAM http://www.qsl.net/w5dxp

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5017. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 03:54:38 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <%pbM9.5675$cN3.910414@news20.bellglobal.com>
Source record: 128857

"OC_CAM's Razor"
> ...non-glare coating on picture glass... Where does
> the energy in the canceled waves go?

Experimentalist approach:
Increase the power level to 'Ludicrous', and then follow the smoke.

5018. Ham Sticks

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 04:02:42 UTC
From: Roger Peterson <kc8qr@neo.rr.com>
Message-ID: <CxbM9.128489$%p6.14277533@twister.neo.rr.com>
Source record: 128856

Does anyone have any for sale? I need them all. Kc8qr@neo.rr.com

Tnx

Pete Kc8qr

5019. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 04:03:29 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <iybM9.5679$cN3.912735@news20.bellglobal.com>
Source record: 128858

"OC_CAM's Razor"
> ...non-glare coating on picture glass... Where does
> the energy in the canceled waves go?

"J. Harvey"
> Experimentalist approach:
> Increase the power level to 'Ludicrous', and then follow the smoke.

Seriously, in this example, the light hitting the non-glare glass ALL (*)
goes through the glass - none is reflected. Cancelled waves is another way
of saying, "Do not enter in the first place."

(*) Of course, the non-glare coating (and even the glass itself) won't be
100% transparent so there will be some efficiency factor - but that is a
side issue and shouldn't be allowed to distract from the main topic.

5020. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 04:03:59 UTC
From: richardharrison@webtv.net
Message-ID: <4939-3E01452F-137@storefull-2313.public.lawson.webtv.net>
Source record: 128860

Peter, K1PO wrote:
"---it does not tell how or why it works!"

Sorry I was unclear. I`ll try again.

A directional coupler commonly used for SWR, works by sending samples of one direction to the trash bin of conversion to heat. A sample of the wave traveling in the opposite direction encounters a termination which does more than convert all the energy traveling in its direction to heat. Some of the energy is used to power an amplitude indication. It is not perturbed by energy traveling in the opposite direction as this is being convertd to heat.

To sample the opposite direction of travel, the the dummy termination load end and the indicator end of the sample line are traded end for end. Another way to do the same job is to use separate sampling lines for the two directions of travel. Where one line has its sample sensor, the other line has its dummy load and vice versa.

The samples obtained of the energy traveling in each direction allow determination of reflection coefficient and SWR that the line might have were it long enough and efficient.

Best regards, Richard Harrison, KB5WZI

5021. Re: Ham Sticks

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 04:06:43 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <kBbM9.5680$cN3.913663@news20.bellglobal.com>
Source record: 128859

"Roger Peterson"
> Does anyone have any for sale? I need them all.

"All" ? ...wow...that's a lot.

www.hamstick.com

5022. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 04:09:10 UTC
From: "Joe S." <joe@schlatter.org>
Message-ID: <atrh5q02vu4@enews4.newsguy.com>
Source record: 128861
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

How do the couplers work?

The coupler consists of a piece of transmission line with the outer shield removed running from the input jack to the output jack with some form of conductor coupled closely to the transmission line to act as a pickup. The pickup device is either a toroid with several turns of wire around it slid over the transmission line, or, a piece of wire -- usually heavy gauge -- running parallel to the transmission line inside the meter.

As the RF from the transmitter travels along the transmission line to the antenna, an magnetic field is set up around the transmission line -- remember, RF is AC and alternating current passing through a conductor causes a magnetic field to form around the conductor.

As the magnetic field rises and collapses, it passes through the pickup device, which is itself a conductor. As a magnetic field cuts through a conductor, it induces an AC current in the conductor -- in this case, the pickup device.

A diode runs from each end of the device -- this diode rectifies the AC into DC and connects the DC current to a measuring circuit.

Power running from the transmitter to the antenna causes current to flow in one direction, power running from the antenna to the transmitter causes current to flow in the other direction. The diodes pick up the voltage in the two directions and pass that current to the measuring circuit where you select whether to measure forward power or reflected power.

--

Regards,
Joe S.

"Jason Hsu" <jason_hsu@my-deja.com> wrote in message
news:f7d9a152.0212172308.4c10bb08@posting.google.com...
> Can someone tell me how an SWR meter works? I'm looking at the SWR
> meter project described at:
> http://www.arrl.org/members-only/tis/info/pdf/9702033.pdf
>
> I know that an SWR meter works by detecting the differences between
> the forward and reflected powers. In this particular circuit, the
> forward and reflected powers are sent into an LM3914 chip. I am
> familiar with the functions of the 3914 chip. The forward power
> becomes a forward voltage that is used as the high reference voltage
> level. The reflected power becomes a reflected voltage that becomes

> the signal that the LM3914 chip tests.
>
> The forward power and the reflected power look like they are fed into
> virtually IDENTICAL circuits. (Notice how both the forward and
> reflected sides are fed into a Ge diode. And the positive side faces
> the transmission line for both.) I know that there are couplers in
> this circuit, but I am having difficulty understanding what's going
> on. How does this circuit ensure that one part of the circuit
> responds only to the forward power and that the other part of the
> circuit only responds to the reflected power?
>
> Jason Hsu, AG4DG
> usenet@@@jasonhsu.com

5023. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 04:37:31 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E014D0B.9080006@ieee.org>
Source record: 128862

J. Harvey wrote:
> Seriously, in this example, the light hitting the non-glare glass ALL (*)
> goes through the glass - none is reflected. Cancelled waves is another way
> of saying, "Do not enter in the first place."

We know there are reflections from the surface of the film and from the
surface of the glass, i.e. two sets of reflections that cancel. So if
none is reflected, then all must be re-reflected.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5024. Re: Ham Sticks

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 04:39:00 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E014D64.6070704@ieee.org>
Source record: 128863

J. Harvey wrote:
> "Roger Peterson"
>>Does anyone have any for sale? I need them all.
>
> "All" ? ...wow...that's a lot.

Well, I can tell you he is not going to get them all.
He can't have mine. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5025. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 05:07:54 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <HucM9.5709$cN3.930124@news20.bellglobal.com>
Source record: 128864

"OC_CAM's Razor"
> We know there are reflections from the surface of the film
> and from the surface of the glass, i.e. two sets of reflections
> that cancel. So if none is reflected, then all must be re-reflected.

There are numerous 'Theories of Light' - none should be taken too seriously. It's all 'Superstrings' after all (maybe).

An old example of how to approach The Whole Damn Thing...

Q: Is light made of photons or waves ?

A: Light is light. God/Nature made light. Light will do whatever the hell light wants to do. Man invented the concepts of rays, and waves, and photons and so forth. They even hand out prizes for these inventions. Often light will act in a way that can be explained by use of these man-made models. When the models fall apart, someone will invent a new model and win a prize.

Honestly, I don't believe that non-glare coating on glass led to any theoretical revolutions in the field of physics (optics). I remember doing those physics exercises (non-glare glass - wave cancellation) in High School Physics (perhaps repeated in University Physics 101). I'm pretty sure that the explanation was that wave cancellation is like a 'dead short' (in that direction) and that prevented the energy from going that way (being reflected).

It is certainly a mistake to consider the two partial reflections (of non-glare glass) in isolation from each other - they're only a quarter lambda apart and the photons (excuse the mental shift) certainly don't treat the two reflective surfaces in isolation from each other.

If you really do see a problem with non-glare glass (and you're not just being rhetorical), then you need to fill that gap. I don't believe that there is a Noble Prize waiting in 'The Non-Glare Glass Problem'.

5026. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 05:16:11 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <l9l20vopacn4egin6m46rkgkv3nf4e6f71@4ax.com>
Source record: 128865

On Wed, 18 Dec 2002 21:28:31 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Richard Clark wrote:
>
>> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>>Why? It's a simple yes/no question. I don't have the reference.
>>
>> :-)
>
>Does your reference indicate what happens in the non-glare
>coating on picture glass?

Certainly, simply use the math offered.

> If so, exactly the same thing
>happens at a matched impedance discontinuity.

Now that you have the math, show us.

>Wave cancellation
>of two reflected waves happens.

Duh

>The only question is: Where does
>the energy in the canceled waves go?

The text quotation answers that too.

> I have presented a multiple
>choice question that nobody has answered:

All this and heaven too... The world wonders.

>
>When two waves, traveling in the same direction in a transmission
>line, cancel, the energy in those two waves:
>1. Keeps going the same direction
>2. Reverses direction
>3. Stands still and accumulates
>4. Disappears from the system
>5. Other, please explain _____

Imagine, Cecil,

I've given you a complete solution and you want to play multiple
guess?

73's
Richard Clark, KB7QHC

5027. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 07:06:08 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-1812022306080001@bni030qny8kc.bc.hsia.telus.net>
Source record: 128866

In article <atr8mi$88u$1@slb5.atl.mindspring.net>, "Peter O. Brackett"
<ab4bc@ix.netcom.com> wrote:

> Richard:
>
> [snip]
> > Wires are waveguides. Wire currents generate waves and vice versa.
> >
> > A wave traveling on wires will generate a wave on a parallel circuit. If
> > the parallel circuit is terminated in its surge impedance (Zo), a
> > resistance, this induced wave will be absorbed in the resistance (a
> > resistor) and converted to heat.
> >
> > A wave traveling in the opposite direction can be converted to a reading
> > without interference from the absorbed wave.
> >
> > Best regards, Richard Harrison, KB5WZI
> [snip]
>
> Come on Richard, all that *explanation* does is say "what" the
> directional coupler does, it does not tell how or why it works!
>
> I really want to know?

A little over 40 years ago one afternoon I wondered about this. I took a pencil and a piece of paper and thought about the mutual inductance between the pickup wire (sample wire) and the centre conductor of the coax, the capacitance between these two things, and the termination resistor at one end of the pickup wire. I wrote down a few equations involving things like Ohm's law and its variants for inductors and capacitors and Kirchhoff's two laws, and I did a little algebra. Five minutes later I knew how "SWR meters" work.

The final equations bore a strange resemblance to those involved in Wheatstone bridges (he says with a grin).

I should have been working on my math dissertation instead of doing undergraduate EE stuff covered no doubt in courses I had never taken, and the immanent arrival of daughter Susan, then about -4 months old, encouraged me to get back to the dissertation. It got finished about 2 months before Susan was born.

Paper and pencil are still available. E = IR, E = L*dI/dt = L*d^2Q/dt^2, and E = Q/C, along with the Khirchoff Laws, are all you need. The solution is left to the reader ;-).

David, ex-W8EZE

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

5028. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 07:33:15 UTC
From: k7itm@aol.com
Message-ID: <3200347.0212182333.69a71dd8@posting.google.com>
Source record: 128867
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

If you do a Google search of the archive of this group, you'll find some really good explanations about how directional couplers work. I wrote one or two that people years later told me were useful to them, but I know that others may well have explained them better, too. As others in this thread have said, it's that the difference between forward and reverse power is the direction of the current for a given voltage. For each wave, the voltage and current are related by v=Zo*i.

Cheers,
Tom

jason_hsu@my-deja.com (Jason Hsu) wrote in message news:<f7d9a152.0212172308.4c10bb08@posting.google.com>...
> Can someone tell me how an SWR meter works? I'm looking at the SWR
> meter project described at:
> http://www.arrl.org/members-only/tis/info/pdf/9702033.pdf
>
> I know that an SWR meter works by detecting the differences between
> the forward and reflected powers. In this particular circuit, the
> forward and reflected powers are sent into an LM3914 chip. I am
> familiar with the functions of the 3914 chip. The forward power
> becomes a forward voltage that is used as the high reference voltage
> level. The reflected power becomes a reflected voltage that becomes
> the signal that the LM3914 chip tests.
>
> The forward power and the reflected power look like they are fed into
> virtually IDENTICAL circuits. (Notice how both the forward and
> reflected sides are fed into a Ge diode. And the positive side faces
> the transmission line for both.) I know that there are couplers in
> this circuit, but I am having difficulty understanding what's going
> on. How does this circuit ensure that one part of the circuit
> responds only to the forward power and that the other part of the
> circuit only responds to the reflected power?
>
> Jason Hsu, AG4DG
> usenet@@@jasonhsu.com

5029. Re: Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 08:41:17 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0212190041.100306ba@posting.google.com>
Source record: 128868

k3bu@aol.com (Yuri Blanarovich) wrote in message
news:<20021218211049.10405.00000312@mb-ba.aol.com>...
> >
> >You may be missing a lot. All a 4050 ohm, one wavelength dipole needs for
> >a perfect match to 50 ohms is 1/4WL of 450 ohm line.
> >--
> >cheers, CAM http://www.qsl.net/w5dxp
> >
>
Yuri,

The latest version 5.0 version of the software just contains an AO
alike optimizer. During last few weeks (in my sparse free time) I
added a number of Genetic Algorithms for single-freq or freq-sweep
optimization The new subroutines work surpisingly well, but I am not
very satisfied about what antenna characteristics one would like to
have for optimization.

In the latest version this was any combination of Gain, F/B, F/R,
R-in, X-in and efficiency with user-selectable weighting factors and
target values, but maybe other characteristics are preferable.

Anybody with suggestions (and how you would like to have them
calculated)...?

Arie.

5030. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 10:19:31 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <P6olnZIz0ZA+EAjw@ifwtech.co.uk>
Source record: 128769

David or Jo Anne Ryeburn wrote:
>
>A little over 40 years ago one afternoon I wondered about this. I took a
>pencil and a piece of paper and thought about the mutual inductance
>between the pickup wire (sample wire) and the centre conductor of the
>coax, the capacitance between these two things, and the termination
>resistor at one end of the pickup wire. I wrote down a few equations
>involving things like Ohm's law and its variants for inductors and
>capacitors and Kirchhoff's two laws, and I did a little algebra. Five
>minutes later I knew how "SWR meters" work.
>
>The final equations bore a strange resemblance to those involved in
>Wheatstone bridges (he says with a grin).
>
>I should have been working on my math dissertation instead of doing
>undergraduate EE stuff covered no doubt in courses I had never taken, and
>the immanent arrival of daughter Susan, then about -4 months old,
>encouraged me to get back to the dissertation. It got finished about 2
>months before Susan was born.
>
>Paper and pencil are still available. E = IR, E = L*dI/dt = L*d^2Q/dt^2,
>and E = Q/C, along with the Khirchoff Laws, are all you need. The solution
>is left to the reader ;-).

Check your answers at "An Inside Picture of Directional Wattmeters; What
They Do and How They Do It" by Warren Bruene, (then) W0TTK, in QST for
April 1959. It's a beautifully clear explanation, and a classic article.
I wrote a two-page summary in my magazine column for September 2001, but
unfortunately neither of these references is available on the web -
one's too old and the other's too recent.

All of these SWR sensors work by taking samples of the current in the
line and of the voltage between the line and the shield. When you
reverse the sensor in the line, the current sample reverses its phase
but the voltage sample doesn't... and that's how the bridge gets its
directional properties.

The similarity to a Wheatstone impedance bridge (as used in SWR
analysers) is no coincidence. If you wish, you can re-draw the bridge as
a series resistor sampling current, and the other two fixed resistors
forming a voltage divider; and then you can analyse it by Bruene's
method.

On the other hand, you can think of an SWR meter as a kind of impedance
bridge and analyse it in those terms, without ever mentioning the words

"wave", "forward" or "reflected".

Both approaches are equally valid, and there is no conflict between them.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

5031. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 10:43:06 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <ats7rq$19g$1@slb6.atl.mindspring.net>
Source record: 128770

David:

[snip]
> The final equations bore a strange resemblance to those involved in
> Wheatstone bridges (he says with a grin).
:
:
> David, ex-W8EZE
[snip]

Interesting! (He remarks with his own grin.)

Certainly mathematical expressions for the output voltage of the Wheatstone bridge
[open circuit voltage across the bridge arm] look like the mathematical definition
of a so-called "reflected voltage", usually symbolized as "B" and calculated by the
bridge [essentially the bridge is an analog computer] as B = V - RI where
V and I are the respective voltage and current at a single point/plane on a transmission
line or network of characteristic impedance R.

But displaying that equation doesn't physically explain how the heck Wheatstone bridges
sort out the direction of travel of waves and/or the values of their minimum and maximum
voltages and currents [for SWR purposes] as observed at points spaced out along a legnth
of at least a half wave length by simply forming an output based upon observations of the
voltage and current at a single point/plane in the system?

And further, not all SWR meters make use of such single observation point bridges.
Some make use of distributed structures, e.g. slotted lines, and parallel waveguides.

What exactly is the mechanism by which such devices detect directionality?

I know all of the mathematics, I'm looking for a physical explanation, not a display of
mathematical equations. Give me something like the Doppler effect which is used
to tell if an object is approaching or receeding from the observer, etc...

What?

--
Peter K1PO
Indialantic By-the-Sea, FL

5032. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 10:55:31 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <ats8j4$v77$1@slb9.atl.mindspring.net>
Source record: 128771
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Tom:

[snip]
"> others in this thread have said, it's that the difference between
> forward and reverse power is the direction of the current for a given
> voltage. For each wave, the voltage and current are related by
> v=Zo*i.
>
> Cheers,
> Tom
[snip]

So this must mean that some of the charges/Couloumbs [as represented by
electrons I presume]
are moving in one direction, say to the left, while others, are
simultaneously moving to the right.

Can this true?

I was always taught that like charges attract and unlike charges repel,
positive charges always
tend to move from positive to negative potentials and negative charges
always tend to move
from negative to positive potentials and so *all* of the charges of the
same kind, clearly
these are electrons in RG-58, must all be moving in more or less the same
direction. What?

Heh, heh...

I can just see two electrons passing each other going in opposite
directions, one says to the other,
"Where the heck do you think you are going? The positive direction is down
this way, you'r not
going in the *positive* direction, get with the program!"

I often ask myself, "If I were an electron, which way would I be going now,
and why?"

Thoughts, comments?

--
Peter K1PO
Indialantic By-the-Sea, FL

5033. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 11:01:57 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <ats8v6bhr1@slb1.atl.mindspring.net>
Source record: 128772

Cecil:

Heh, heh...

Say, did you see Walter's rebuttal of Steves QEX assertions in WorldRadio
this month?

Yawn... Walter's explanations are just soooo long and complex...

I feel that both Walter and Steve need to pare it down a little, they are
rapidly losing their respective
grips on their arguments.

What is that advice seasoned pros always give to novice salesmen?

"Never talk your way out of or past the sale. Just explain succinctly and
clearly, then ask for the order, and shut up!"

--
Peter K1PO
Indialantic By-the-Sea, FL

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E013A68.2030700@ieee.org...
> Peter O. Brackett wrote:
> > It's only during the transient regime that energy surges up and down
> > transmission
> > lines, in the steady state when the line's distributed reactances are
fully
> > charged,
> > all of that stored energy just surges back and forth between the
> > distributed inductance
> > and capacitance, i.e. is sloshes sort of sidewise on the line rather
than
> > lengthwise.
>
> If it only "sloshes sort of sidewise", how come I can see ghosting in a
> 1000 ft section of unmatched TV feedline?
>
> > Why Dr. Best, Walter Maxwell, and a few others make such simple things
so
> > complicated I'll never understand. I'm sure that no one, except
perhaps
> > yourself, has
> > the time or energy to follow their strained, convoluted, obtuse and
obscure
> > arguments.

>
> I was curious about their exact area of disagreement and the subsequent
> resulting political power structure. I'm probably not the first engineer
> to take a close look at an impedance discontinuity, but I am not aware
> of any references on this exact subject. Of course, I don't have access
> to a lot of references.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5034. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 13:41:13 UTC
From: Jeroen Belleman <Jeroen.Belleman@cern.ch>
Message-ID: <3E01CC79.C5474E78@cern.ch>
Source record: 128773
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

"Peter O. Brackett" wrote:
>
> Tom:
>
> [snip]
> "> others in this thread have said, it's that the difference between
> > forward and reverse power is the direction of the current for a given
> > voltage. For each wave, the voltage and current are related by
> > v=Zo*i.
> >
> > Cheers,
> > Tom
> [snip]
>
> So this must mean that some of the charges/Couloumbs [as represented by
> electrons I presume]
> are moving in one direction, say to the left, while others, are
> simultaneously moving to the right.
>
> Can this true?

Come one Peter, quit pulling the fellow's leg. He's the only
one who responded something that makes sense to those used to
think in volts and amperes.

Jeroen

5035. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 13:55:18 UTC
From: richardharrison@webtv.net
Message-ID: <13429-3E01CFC6-4@storefull-2316.public.lawson.webtv.net>
Source record: 128775

Peter, K1PO wrote:
"---these are electrons in RG-58, must be moving in more or less the same direction."

You may recall the tube packed with balls analogy. Tap the balls from one end and all are displaced in one direction. Tap the balls from the other end and all are displaced in the opposite direction.

Repeat the sequence as often as desired. Individual balls don`t migrate through the tube. They just slightly move back and forth, but their energy travels end-to-end.

Electrons oscillate in accord with their excitation in conductors and are not required to migrate through its length to relay energy via the conductor.

Peter also wrote:
"I can just see these electrons passing each other---."

This isn`t needed for bi-directional simultaneous energy transmission. In fact, the electrons are superfluous, but impose conditions on transmission. Energy radiates through vacuua where there are few if any electrons. It is energy which moves at speeds approaching that of light, not the electrons, which have the inertia of their mass.

Best regards, Richard Harrison, KB5WZI

5036. Auto tuner phase detector

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 13:59:39 UTC
From: jgboyles@aol.com
Message-ID: <20021219085939.27014.00000229@mb-dh.aol.com>
Source record: 128774

Hi,
Anyone got any ideas on a phase detector for a remote automatic antenna tuner I am thinking of building. The tuner portion wil consist of motor driven variable inductor and capacitor in a switchable "L" network. The rf for the tuning process will be supplied from an MFJ-259B back at the operating position.
I measured the output of the mfj into 50 ohms and got 1 volt rms at 20 ma. I am afraid this is not enough for a standard diode phase detector even using germaniums. I suppose I could use zero bias Schottky diodes, but don't have any at the moment and don't know where to get them. Also need ideas on ratio detector so the tuner knows the voltage and current ratio is 50 ohms.
Also the only time rf will be present in the phase detector is during "tune". otherwise the detector circuits will be bypassed. I plan on running a kilowatt from time to time and don't want to fry the detectors.
Thanks for any ideas.
73 Gary N4AST

5037. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 14:51:09 UTC
From: richardharrison@webtv.net
Message-ID: <4939-3E01DCDD-193@storefull-2313.public.lawson.webtv.net>
Source record: 128777

Peter, K1PO wrote:
"What exactly is the mechanism by which such devices detect
directionality?"

As described in earlier postings, a traveling wave moves in a particular direction. Coupled into an external circuit, it is configured to induce a traveling wave in a particular direction in the coupled circuit. The "mechanism" is whether the induced wave is trashed or measured.

A refinement of the Bird wattmeter is use of an "earmark" of a once-reflected wave. One or more odd-numbered reflections leaves a wave with its volts and amps 180-degrees out-of-phase. Bird cleverly adjusts samples of volts and amps to be exactly equal in producing indicator deflection.

So, in the Bird, the incident wave sample deflection is exactly twice the magnitude that either volts or amps produces alone.

In the Bird, deflection produced from the reflected wave under the above conditions, is exactly zero as the out-of-phase volt and amp samples exactly cancel.

Nothing is perfect, but the Bird is good enough for most practical purposes.

NBest regards, Richard Harrison, KB5WZI

5038. Re: Auto tuner phase detector

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 15:09:31 UTC
From: richardharrison@webtv.net
Message-ID: <4944-3E01E12B-4@storefull-2313.public.lawson.webtv.net>
Source record: 128776

Search on "Dan`s Small Parts" for hot-carrier diodes.

Best regards, Richard Harrison, KB5WZI

5039. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 15:27:31 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <f9sRmcLjVeA+EAxr@ifwtech.co.uk>
Source record: 128778

Richard Harrison wrote:
>Peter, K1PO wrote:
>"What exactly is the mechanism by which such devices detect
>directionality?"
>
>As described in earlier postings, a traveling wave moves in a particular
>direction. Coupled into an external circuit, it is configured to induce
>a traveling wave in a particular direction in the coupled circuit. The
>"mechanism" is whether the induced wave is trashed or measured.
>
Which really didn't explain anything...

>A refinement of the Bird wattmeter

None of the following are "refinements" particular to the Bird
wattmeter. They are all essential features of *any* correctly
functioning directional wattmeter / SWR meter / reflection coefficient
meter / TLI (Three Letter Invention ;-) /
or whatever you wish to call it.

>is use of an "earmark" of a
>once-reflected wave. One or more odd-numbered reflections leaves a wave
>with its volts and amps 180-degrees out-of-phase. Bird cleverly adjusts
>samples of volts and amps to be exactly equal in producing indicator
>deflection.
>
They all do that, in order to produce a null reflected reading with a
perfectly matched load.

>So, in the Bird, the incident wave sample deflection is exactly twice
>the magnitude that either volts or amps produces alone.
>
And that.

>In the Bird, deflection produced from the reflected wave under the above
>conditions, is exactly zero as the out-of-phase volt and amp samples
>exactly cancel.
>
And that too.

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

5040. Ant Model software

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 15:43:54 UTC
From: "J. Keith Carter" <j.keith.carter@sympatico.ca>
Message-ID: <3E01E93A.7C8DABFB@sympatico.ca>
Source record: 128781

It would seem that my Windows XP and Netscape disagreed and I lost my bookmarks. A short time ago someone posted a freebee modeling web site and I had book marked it for future download and evaluation. I normally use EZNEC3 and also have MMAMA. I think this one came out of Europe. If anyone recalls this program I would appreciate a posting. Thanks, 73 and Holiday Greetings. Keith, VE3JKC.

5041. Re: Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 15:45:38 UTC
From: k3bu@aol.com
Message-ID: <20021219104538.14082.00000357@mb-cg.aol.com>
Source record: 128779

Arie writes:

>The new subroutines work surprisingly well, but I am not
>very satisfied about what antenna characteristics one would like to
>have for optimization.
>

I better try it. I am looking forward to "play" with it.

Again, for this demanding user, I am looking for the transmit antenna to have maximum gain and efficiency, so I can lay the loudest signal in particular area. F/R is not of big concern, it might be even desirable to keep the QRMers away. Minimum power loses in the cable and any matching devices. Then again, trying to include the feedpoint impedance choice in order to avoid matching devices. So here we are shooting for max forward gain, efficiency and desired impedance.

For the receive antennas, I am looking for cleanest pattern with minimum rear/side lobes. This minimizes the atmospheric QRN pickup, band QRM pickup and this can contribute tens of dB to noise and unwated signals rejection (which can be traded for fractions of dB in loss of forward gain).
With tunable antennas (like Step-IR) this is quite feasible to implement into the antenna (array) design and make it T/R switchable.
Here we are shooting for cleanest, one lobe pattern.

When designing Razors on 2m test range, I found that if I optimized the antenna for particular height and then changed the height, by reshuffling the elements I would improve the performance. So the conclusion was: antenna array should be optimized for the height and ground quality it will be implemented in. This is why inclusion of terrain and ground conditions (sloping hill, sand/salt water front) will be also very helpful.
This would for example show, why I had problems with 1600 ft beverages going down on sloping hill (they were "deaf") before I put them up. When I cut them in half, they were OK.

Another factor is antenna structures (towers, guy wires) and other hard to model stuff (houses, electrical wiring, etc.) within couple wavelengths that contribute to distortion or enhancement of the array performance.
Are we going too far? :-)(

I didn't have the chance to use 4NEC2, I hope to do that soon, I wonder if others have used it and their comments. Is there coordinates "translation" tool for dimensions between various programs? That would help to compare results and fine tune the designs.

73 Yuri, K3BU

5042. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 15:45:47 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E01E9AB.90206@ieee.org>
Source record: 128780

Richard Clark wrote:
> I've given you a complete solution and you want to play multiple
> guess?

You may have transmitted it, Richard, but I haven't received it.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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5043. Re: Follow up to Dec. 8th post about "Loop Skywire"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 15:49:27 UTC
From: richardharrison@webtv.net
Message-ID: <4939-3E01EA87-202@storefull-2313.public.lawson.webtv.net>
Source record: 128785

Rich, K2CPE wrote:
"He was in Ushuaia, LU8XP."

Thank you for the identification. He wasn`t using my rhombic. YPF, the Argentine Oil Company has facilities which they confiscated from us on the north side of the island.

Ushuaia, when I was there, had only one hotel and it was very primative. It`s a very cold place and the hotel had an enormous pot-bellied stove near the front door.

Ushuaia backs up against a mountain range which cuts off the north side of the island, but Argentine "highway" No. 1 starts right there. Ushuaia has a deep-water port which is denied the north side of the island by tides which normally exceed 30-feet. When the tide goes out up there, it`s more than a mile from where the shore was to where the shore now is. The "highway" connecting Ushuaia with the north is incredibly precarious. We tried using Ushuaia`s port one time, then it was back to landing craft and barges to ferry goods between ships far out at sea and the shore. We had to put our oil loading terminal far out in the sea to ship out our production. Daily hurricane winds made that operation fun too. A deep-water port at Ushuaia wasn`t of much help then, but an oil pipeline could have made it useful to ship out the oil from the north. We didn`t have time to build a pipeline, but maybe YPF has.

Best regards, Richard Harrison, KB5WZI

5044. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 15:53:33 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E01EB7D.2030701@ieee.org>
Source record: 128782

Peter O. Brackett wrote:
> What exactly is the mechanism by which such devices detect directionality?

The voltage and current are in phase for forward energy. The voltage
and current are 180 degrees out of phase for reflected energy. Assume
that's all you know and invent your own method of detection. Chances
are, it won't be an original design.
--
cheers, CAM http://www.qsl.net/w5dxp

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5045. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 16:03:53 UTC
From: richardharrison@webtv.net
Message-ID: <4939-3E01EDE9-209@storefull-2313.public.lawson.webtv.net>
Source record: 128784

Ian, G3SEK wrote:
"They all do that, in order to produce a null reflected reading with a perfectly matched load."

Yes, but Bird was clever in getting there "firstest with the mostest" and maintaining a quality which makes their instrument the field instrument of comparison.

Best regards, Richard Harrison, KB5WZI

5046. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 16:10:35 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E01EF7B.9060306@ieee.org>
Source record: 128783
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Peter O. Brackett wrote:

> Tom:
>> others in this thread have said, it's that the difference between
>>forward and reverse power is the direction of the current for a given
>>voltage. For each wave, the voltage and current are related by
>>v=Zo*i.
>>
> So this must mean that some of the charges/Couloumbs [as represented by
> electrons I presume]
> are moving in one direction, say to the left, while others, are
> simultaneously moving to the right.
>
> Can this true?

The waves in water are not the water molecules. The waves in the free electrons in a wire are not the electrons. The waves in both instances are the energy, not the particles.

If I put a steel bar to your head and hit it with a hammer, do you really think a steel molecule has moved from one end of the bar to the other?

If you anchor a rope at one end and then pop the other end, is the wave moving down the rope causing rope molecules to move from one end of the rope to the other?

> I often ask myself, "If I were an electron, which way would I be going now,
> and why?"

Electrons in a wire move in the direction set by the total emf which is either positive, negative, or zero, but they certainly don't move at the speed of light. We are discussing wave energy not physical movement of electrons. Just as water molecules carry wave energy without moving very much, electrons carry wave energy without moving very much.

Which way would you move? Knowing how ornery you are, you would probably choose a fractal pattern of movement. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5047. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 16:24:39 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E01F2C7.1070205@ieee.org>
Source record: 128786

Peter O. Brackett wrote:
> Say, did you see Walter's rebuttal of Steves QEX assertions in WorldRadio
> this month?

I haven't gotten my WorldRadio yet. Maybe today.

> I feel that both Walter and Steve need to pare it down a little, they are
> rapidly losing their respective
> grips on their arguments.

Amazingly enough, Dr. Best and Mr. Maxwell are apparently making the same conceptual mistake. Here's the mistaken concept as I understand it.

"The only reflected energy in the entire transmission line is the energy reflected from the load."

However, there is lots of reflected energy at the match point. Dr. Best apparently doesn't realize it, but "rearward traveling waves 1 and 2" in his article are reflected waves. When they cancel, their combined energy reverses direction and becomes re-reflected energy which Dr. Best needs for his superposition (constructive interference), but he continues to assert that it doesn't exist.

IMO, Dr. Best and Mr. Maxwell are about two inches apart in their arguments but neither side will budge that last inch. :-) My goal was to bridge the gap in their arguments and I believe I have done that although I may not have explained it very well.
--
cheers, CAM http://www.qsl.net/w5dxp

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5048. QST April 1959

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 16:39:25 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <v03ti8p5odmd7b@corp.supernews.com>
Source record: 128787

Has anyone got a copy of the article by Bruene on Directional Wattmeters in
the subject issue starting page 24 that can be emailed?
tnx
hank wd5jfr

5049. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 16:44:49 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <atst23$t8i$1@slb9.atl.mindspring.net>
Source record: 128788
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Cecil:

[snip]
> Electrons in a wire move in the direction set by the total emf which is
> either positive, negative, or zero, but they certainly don't move at the
> speed of light. We are discussing wave energy not physical movement of
> electrons. Just as water molecules carry wave energy without moving very
> much, electrons carry wave energy without moving very much.
>
> Which way would you move? Knowing how ornery you are, you would probably
> choose a fractal pattern of movement. :-)
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

Heh, heh... Me? Ornery? :-) Hey I never said electrons move at the speed
of light!

You are putting words in my mouth. Where or when did I ever say that?

Heh, heh...

As my favorite President used to say, "There you go again."

Attempting to change the subject to avoid the issue. Well Cec that just
won't work!

As I am sure you know, electrons move at the drift velocity which is
substantially
less than the speed of light.

This is analogous to the speed of the water molecules in a water pipe
[slow], and the
energy transmitted by those water molecules [fast]. The energy always moves
a hell of
a lot faster than the drift velocity of the particles that "carry" it.

The "energy" being transmitted by the slowly moving electrons in a metallic
conductor
often moves at close to the speed of light, but the electrons themselves
often move
at only a few meters per second. [It all depends on the density of the free
electrons.
You have to understand moles, molar measures, Avagodadro's Number and the
metal's density to compute the actual density of free electrons and their
velocity

given the value of the current.] But then Cecil I know that you already knew
all of that, and... BTW...

What the hell does the electron velocity have to do with this discussion anyway?

It was/is the electron's *direction* that we were discussing not their speed!

Jeeesh! ;-)

Happy Holidays,

--
Peter K1PO
Indialantic By-the-Sea, FL

5050. Re: Ant Model software

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 17:05:17 UTC
From: Eskay <ve3juaNO@SPAMrac.ca>
Message-ID: <3E01FC4D.6090100@SPAMrac.ca>
Source record: 128789

Proggy is called 4nec2 from Arie (not a Ham)in Holland.
73 de VE3JUA...

J. Keith Carter wrote:
> It would seem that my Windows XP and Netscape disagreed and I lost my
> bookmarks. A short time ago someone posted a freebee modeling web site
> and I had book marked it for future download and evaluation. I normally
> use EZNEC3 and also have MMAMA. I think this one came out of Europe. If
> anyone recalls this program I would appreciate a posting. Thanks, 73 and
> Holiday Greetings. Keith, VE3JKC.
>

5051. Re: QST April 1959

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 17:10:21 UTC
From: Eskay <ve3juaNO@SPAMrac.ca>
Message-ID: <3E01FD7D.20201@SPAMrac.ca>
Source record: 128790

Yes,contact me via E-mail..
73 de VE3JUA...

Henry Kolesnik wrote:
> Has anyone got a copy of the article by Bruene on Directional Wattmeters in
> the subject issue starting page 24 that can be emailed?
> tnx
> hank wd5jfr
>
>

5052. Re: QST April 1959

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 17:48:21 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <v041jfqigtesbc@corp.supernews.com>
Source record: 128791

scratch the request, just got a copy..
"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:v03ti8p5odmd7b@corp.supernews.com...
> Has anyone got a copy of the article by Bruene on Directional Wattmeters
in
> the subject issue starting page 24 that can be emailed?
> tnx
> hank wd5jfr
>
>

5053. How much are 1950s issues of QST worth?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 17:56:36 UTC
From: BICisfag <ll@jj.com>
Message-ID: <3E020854.E405D603@jj.com>
Source record: 128794

.

5054. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 18:06:45 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E020AB5.6000301@ieee.org>
Source record: 128793
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Peter O. Brackett wrote:
> What the hell does the electron velocity have to do with this discussion
> anyway?
>
> It was/is the electron's *direction* that we were discussing not their
> speed!

How can you decide direction without also deciding speed?
Going north or south at zero speed is the same thing.
--
cheers, CAM http://www.qsl.net/w5dxp

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5055. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 18:40:46 UTC
From: k7itm@aol.com
Message-ID: <3200347.0212191040.43f7509b@posting.google.com>
Source record: 128795
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Soooo, Pete, do you believe the transmission line is a linear system

Cheers,
Tom
"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:<ats8j4$v77$1@slb9.atl.mindspring.net>...
> Tom:
>
> [snip]
> "> others in this thread have said, it's that the difference between
> > forward and reverse power is the direction of the current for a given
> > voltage. For each wave, the voltage and current are related by
> > v=Zo*i.
> >
> > Cheers,
> > Tom
> [snip]
>
> So this must mean that some of the charges/Couloumbs [as represented by
> electrons I presume]
> are moving in one direction, say to the left, while others, are
> simultaneously moving to the right.
>
> Can this true?
>
> I was always taught that like charges attract and unlike charges repel,
> positive charges always
> tend to move from positive to negative potentials and negative charges
> always tend to move
> from negative to positive potentials and so *all* of the charges of the
> same kind, clearly
> these are electrons in RG-58, must all be moving in more or less the same
> direction. What?
>
> Heh, heh...
>
> I can just see two electrons passing each other going in opposite
> directions, one says to the other,
> "Where the heck do you think you are going? The positive direction is down
> this way, you'r not
> going in the *positive* direction, get with the program!"
>
> I often ask myself, "If I were an electron, which way would I be going now,

> and why?"
>
> Thoughts, comments?

5056. Re: How much are 1950s issues of QST worth?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 18:50:51 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <wRQCPpk9m2X+ud5qjefObc6uKhp9@4ax.com>
Source record: 128796

BICisfag <ll@jj.com> wrote:

>.

There are always plenty of issues of QST for sale on Ebay. Do a search and see
the prices -- maybe a couple of bucks an issue.

Bob
k5qwg

5057. Re: Auto tuner phase detector

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 18:59:44 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <AGoM9.9160$4j5.4986555@newssvr28.news.prodigy.com>
Source record: 128792

Gary, I have done extensive testing lately regarding phase detectors for my auto-tuning minibeam project. I tried diode DBMs, active DBMs, XOR type detectors, etc. There is only one device I tried that I think would work in your case...an Analog Devices AD8302. Below are details...

In my case I needed something that would continuously monitor phase and element currents in my beam while transmitting...even in SSB...necessitating a dynamic range of over 60 db with minimal phase variation. The design I finalized uses several chips from Analog Devices. For the limiting amps I use AD606's, which also give me a signal strength output that I use for monitoring current levels, followed by an AD8302 phase/level detector chip. This is designed for remote monitoring of performance in cellular systems. It is a great chip, but very difficult to deal with as it is a TSSOP package. They offer a prototype board for $100 though. It has ~60 db gain, so should work with low levels. Even though the AD8302 by itself would theoretically have worked, I got phase variation of over 10 degrees without the log amps. The phase detectors used by tuner makers like SGC are typically far worse than this, however. I also tried using the log amps followed by monlithic amps and a diode DBM...you may find this acceptable, but in my case there were a number of problems with this design.

I use a serial interface with A/D converters and relay drivers, along with a software control panel, to sample the parameters for the phase detector and auto-adjust the DE tuning box which consists of stepped coils and caps in a L-network arrangement...and also adjust the tuning of the reflector for optimum performance.

I am in the process of documenting the project and will be submitting an article to QST for publication. For more info, see my website under LP-Autobeam near the bottom of the page.

73,
Larry N8LP
www.telepostinc.com/n8lp.html

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20021219085939.27014.00000229@mb-dh.aol.com...
> Hi,
> Anyone got any ideas on a phase detector for a remote automatic antenna
tuner
> I am thinking of building. The tuner portion wil consist of motor driven
> variable inductor and capacitor in a switchable "L" network. The rf for
the
> tuning process will be supplied from an MFJ-259B back at the operating
> position.
> I measured the output of the mfj into 50 ohms and got 1 volt rms at 20

ma. I
> am afraid this is not enough for a standard diode phase detector even
using
> germaniums. I suppose I could use zero bias Schottky diodes, but don't
have
> any at the moment and don't know where to get them. Also need ideas on
ratio
> detector so the tuner knows the voltage and current ratio is 50 ohms.
> Also the only time rf will be present in the phase detector is during
"tune".
> otherwise the detector circuits will be bypassed. I plan on running a
kilowatt
> from time to time and don't want to fry the detectors.
> Thanks for any ideas.
> 73 Gary N4AST

5058. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 19:23:34 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <3E021CB6.470CFD84@sympatico.ca>
Source record: 128797

CW wrote:
>
> That's because there isn't any unless you are in commercial airspace.
> "'Doc" <w5lz@cwis.net> wrote in message news:3E003033.BE655F65@cwis.net...
> >
> >
> > CW,
> > Or, when you plan to go above a certain height, don't
> > remember what that is though.
> > 'Doc

I know this is drifting off topic, but what on earth is 'commerical airspace'? And, what other types are there?

Dave

5059. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 19:41:09 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <att7cnmjn1@slb0.atl.mindspring.net>
Source record: 128798
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Cecil:

[snip]
> How can you decide direction without also deciding speed?
> Going north or south at zero speed is the same thing.
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

Hey don't you remember your calculus and the theory of limits?

It all depends upon from which speed you approach stationarity.

If you approach zero speed from a positive speed, in the limit you get zero speed.

If you approach zero speed from a negative speed, in the limit you get zilch speed.

North and South have nothing to do with it because its a guided system.

--
Peter K1PO
Indialantic By-the-Sea, FL

5060. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 20:00:55 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <XzpM9.4516$p_6.355856@bgtnsc04-news.ops.worldnet.att.net>
Source record: 128799

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E00A167.9030802@ieee.org...
>
> Dr. Best has failed to demonstrate how to take two phase-locked IC-706's,
> each outputting their maximum 100 watts into 50 ohm transmission lines,
i.e.
> V=70.7V at I=1.414A, and superpose those two and only two waves to obtain
> 141.4V at 2.828A for a total of 400 watts. Maybe you can show us how to do
> that, Peter?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>

Just a point of clarification:

I have never said that you could do what Cecil is suggesting above - i.e. take two separate sources and combine them such that they deliver more total power than the sum of the power being delivered by each. Superposition principles can be simply applied to the voltages and currents in this system to demonstrate that this is not possible.

Steve VE9SRB

5061. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 20:09:22 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <v049rmdsm19iad@corp.supernews.com>
Source record: 128800
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Come guys, it's not what you say it's how you say it...
Your face could stop a clock... We know what that means but it's not nice!
Time stands still when I see you. Not as direct but we get the meaning!

Another axiom: If you can't explain something to others so that most of them can understand you probably don't understand if yourself!

So lets see if I meet line!

Since I've gotten older (62) I don't remember some things as well and to refresh my memory I got a copy of Bruene's 59 QST article and re-read parts Walt Maxwell's book Reflections.

The question was, how does a sensor for an SWR meter work as it seems like the diodes aren't smart enough to know forward from reverse! Walt explains that in the forward wave the voltage and current are in phase. However when a wave is reflected, the current is 180 degrees out of phase, (page 3-6 or 3-7 depending on issue) and that is because the current has changed direction to come back to its source. Bruene goes a little further saying that voltage and current on a line can be considered to have 2 components, a forward and reverse and explains that with phasor diagrams. So remember that current is moving forward to the load and any mismatch causes a reflected current coming back to the source. The returning current is 180 degrees out of phase (as it must be) and is real true power in that it can be used to heat a resistor. Walt points out that some writers have furthered the misunderstanding of reflected power by saying that is not real power because they have incorrectly assumed that the current is 90 degrees out of phase. And if you recall P=ExI for DC and P=ExIx cos. (phase angle), the cosine of 90 is zero but the cos. of 180 is ONE.

OK, now lets put a leg of the transmission line thru a few of turns of wire (transformer) and connect each end to the cathode of a diode, each diode going to a microammeter that is grounded. We also need a dc ground return for the transformer so lets connect a 100 ohm resistor to each end of the transformer.

Now here comes that part that should explain what happens. The forward current will induce a current in the transformer according to the right hand rule and only one of the diodes will conduct giving us a relative indication of the forward current. The other diode can't conduct from the forward current because it's biased off. But as soon as there's reflected current it will turn on, start conducting and send a relative amount of current to the other meter while the other diode is biased off.. I've left out the capacitors and rf chokes for simplification. This is hard to do without a blackboard but lets see if this helps.

73
hank wd5jfr.

"Tom Bruhns" <k7itm@aol.com> wrote in message
news:3200347.0212191040.43f7509b@posting.google.com...
> Soooo, Pete, do you believe the transmission line is a linear system
>
> Cheers,
> Tom
> "Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:<ats8j4$v77$1@slb9.atl.mindspring.net>...
> > Tom:
> >
> > [snip]
> > "> others in this thread have said, it's that the difference between
> > > forward and reverse power is the direction of the current for a given
> > > voltage. For each wave, the voltage and current are related by
> > > v=Zo*i.
> > >
> > > Cheers,
> > > Tom
> > [snip]
> >
> > So this must mean that some of the charges/Couloumbs [as represented by
> > electrons I presume]
> > are moving in one direction, say to the left, while others, are
> > simultaneously moving to the right.
> >
> > Can this true?
> >
> > I was always taught that like charges attract and unlike charges repel,
> > positive charges always
> > tend to move from positive to negative potentials and negative charges
> > always tend to move
> > from negative to positive potentials and so *all* of the charges of the
> > same kind, clearly
> > these are electrons in RG-58, must all be moving in more or less the
same
> > direction. What?
> >
> > Heh, heh...
> >
> > I can just see two electrons passing each other going in opposite
> > directions, one says to the other,
> > "Where the heck do you think you are going? The positive direction is
down
> > this way, you'r not
> > going in the *positive* direction, get with the program!"
> >
> > I often ask myself, "If I were an electron, which way would I be going

now,
> > and why?"
> >
> > Thoughts, comments?

5062. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 20:23:14 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <att9rk$e8p$1@slb1.atl.mindspring.net>
Source record: 128801
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Hey Tom:

[snip]
"Tom Bruhns" <k7itm@aol.com> wrote in message
news:3200347.0212191040.43f7509b@posting.google.com...
> Soooo, Pete, do you believe the transmission line is a linear system
[snip]

Yep, the transmission line, the one we are all discussing, is a linear
system.

And furthermore all of the accompanying force fields are considered to be
conservative.

The mathematics is all very clear, at least to me, heh, heh...

Here, I'll recap.
--
The "voltage wave" variables are labeled A and B, the "circuit" variables
are labeled V [Volts] and I [Amps]. Of course one could work with
current wave variables or even normalized dimensionless wave variables,
but it really doesn't matter since, mathematically at least, the wave
variables
are nothing more than simple linear combinations of the electrical
variables.

The "reflected voltage wave" at the plane in question is: B = V - RI
and the "forward voltage wave" at the plane in question is: A = V + RI.

In matrix notation: Waves = [Matrix] x Electricals, where matrix is:

|1 -R |
|1 +R|

The "waves" are simply related by the linear reflection coefficient rho.

rho = B/A = (V - RI)/(V + RI)

The VSWR, and the ISWR since the system is linear, would indicate
the ratio of the largest to the smallest voltage on the media if the media
had any length, but it also holds for an infinitesimal lenght and is defined
in terms of rho as:

VSWR = (1 + |rho|)/(1 - |rho|)

Where V is the voltage across the reference plane, independent of the
path taken in the evaluation of the line integral which defines V, and I is

the current flowing in the positive direction perpendicular to the plane.
R is a function of the reference media and because of linearity this
reference impedance [characteristic impedance] is equal to the
ratio of voltage to current in that media, R=V/I.

The so-called SWR meter is just an analog computer which measures
V and I and then computes B = V - RI to give an indication of reflected
voltage [cfr. Reg Edwards TLI!]. To make the mathematical division
operation simple, most simple VSWR meters then force or assume
a nominal unit value for the forward "wave" i.e. letting, A = 1.0, or else
they utilize a nomographic analog divider [crossed needles indicating
A and B on separate meter needles] thus providing an indication of
VSWR.

And so... in simple terms, a VSWR meter is an analog computer with
analog sensors which measure V and I at a point/plane and then compute
VSWR according to the above mathematics for display.

Such a meter if it DC coupld and is well designed can provide an
appropriate indication over all frequency ranges down to and including
DC, whether or not there is an actual transmission line present, or whether
or not, say in the case of DC there is an actual standing wave present.
--
See, I know all that mathematical stuff!

But wow... all that being said, I understand the mathematics, but I still
don't understand in a physical sense how the sensor detects which
direction a wave is going! What the OP wanted was a simple
physical explanation. How difficult can it be?

A = V + RI goes one way and B = V -RI goes the other, but...

What the heck are A and B? What are they made of? [Both
volts and amps in linear combination.] What do they look like?
[On a scope they would be voltage sine waves or simple DC
values for DC "waves".]

But that's not satisfying enought for me...

You know, I want a physical explanation, not a mathematical one!

What does the forward wave A actually look like and what does
the reflected wave B actually look like, and how can I tell
one is going West when the other is going East? And are the
electrons in A going in the opposite directions to the ones in B?
Or are all the electrons going the same way in I?

Inquiring minds want to know!

Happy Holidays,

--
Peter K1PO
Indialantic By-the-Sea, FL

5063. Newbie question about antenna materials

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 20:33:16 UTC
From: nenlaven@webdreamland.com
Message-ID: <97503afa.0212191233.29006301@posting.google.com>
Source record: 128802

Over the next couple of weeks I am going to try my hand at making a 10m beam antenna. I have all the measurements I need for the length of the elements and the spacing, etc, but I have a few questions about the materials involved and the actual construction.

1 - For wire antennas, do you remove the insulation from the wire or leave it on? From reading on here I am pretty sure it can remain.

2 - Does it make a difference whether the wire is stranded or solid?

3 - I am going to be using treated lumber for the boom and for the supports for the elements. Is it okay for the wire to lay directly on the wood, or should I put in some supports to raise it up above the wood a bit?

Thanks for your time,
Eric
KE4RCA

5064. UHF Repeater

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 21:26:19 UTC
From: "William A. Galletti" <wagalletti@n7ym.net>
Message-ID: <%PqM9.33868$VA5.4184404@news1.news.adelphia.net>
Source record: 128803

I have decided to post this here before I post it on EBay. If you have any questions please email me at: wagalletti@n7ym.net

If the offer is right I'll let it go otherwise I will post it on EBay

http://www.n7ym.net/ebay/vertex/

5065. Re: Ant Model software

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 21:37:19 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <v04f0ieumjgia0@corp.supernews.com>
Source record: 128804

http://www.qsl.net/wb6tpu/swindex.html

Regards,
Jim - ku5s
--
email sent to: denews@taborsoft.com
is discarded without being seen.
Sorry for any inconvenience.

"J. Keith Carter" <j.keith.carter@sympatico.ca> wrote in message
news:3E01E93A.7C8DABFB@sympatico.ca...
> It would seem that my Windows XP and Netscape disagreed and I lost my
> bookmarks. A short time ago someone posted a freebee modeling web site
> and I had book marked it for future download and evaluation. I normally
> use EZNEC3 and also have MMAMA. I think this one came out of Europe. If
> anyone recalls this program I would appreciate a posting. Thanks, 73 and
> Holiday Greetings. Keith, VE3JKC.
>

5066. Gain of top of the line Radio Shack TV antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 21:57:20 UTC
From: dgilbert@nascospg.com
Message-ID: <a235b6a6.0212191357.1fd179f5@posting.google.com>
Source record: 128805

What is the gain on channel 19 of the best outdoor radio shack antenna. I have one on my house. (Tower). I have trouble picking up channel 19 and was wondering if it would be worth it to build a channel specific beam antenna. using software it says I can get about 16 db of gain. Thanks for any help!

5067. Re: How much are 1950s issues of QST worth?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 22:27:01 UTC
From: scott <acepilot@bloomer.net>
Message-ID: <3E0247B5.484968A5@bloomer.net>
Source record: 128806

Or buy the whole set of 1950's issues on their CDs, so that would be 120 issues
for $20 or $30...or a bit less than about 30 cents per issue.

Scott
N0EDV

Bob Miller wrote:

> BICisfag <ll@jj.com> wrote:
>
> >.
>
> There are always plenty of issues of QST for sale on Ebay. Do a search and see
> the prices -- maybe a couple of bucks an issue.
>
> Bob
> k5qwg

--

Scott
http://corbenflyer.tripod.com
http://groups.yahoo.com/group/ParasolAirplanes
Building RV-4
Gotta Fly or Gonna Die!

5068. Re: Auto tuner phase detector

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 22:29:21 UTC
From: jgboyles@aol.com
Message-ID: <20021219172921.08358.00000186@mb-fu.aol.com>
Source record: 128807

>Gary, I have done extensive testing lately regarding phase detectors

You certainly have Larry, thanks for the info, just what I was looking for.

>There is only one device I tried that I think would work in
>your case...an Analog Devices AD8302.

Looked briefly at the spec sheet for the 8302, looks like it would work quite well except for the $30 price tag and the type package they offer. The evaluation board was $151, both over buget , at least for the moment.
>For the limiting amps I
>use AD606's
These are $50 each. Aren't the limiting amps just to provide zero crossings to the 8302? Do they have to be log amps?

>Even though the AD8302 by itself would
>theoretically have worked, I got phase variation of over 10 degrees without
>the log amps.

How do you get your voltage and current samples? Is the phase variation due to the sampling devices, or do you think it is something in the AD8302?

Visited your website, very informative. Looking forward to QST article, sounds like you have done some nice work. Thanks again for the information.

73 Gary N4AST

5069. Re: Newbie question about antenna materials

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 23:10:33 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3E0251E9.6DB64490@cwis.net>
Source record: 128808

Eric,
None of the things you asked about are critical
at all. It should work just fine...
'Doc

5070. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 23:19:33 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3E025405.76E45262@cwis.net>
Source record: 128809
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Here we go 'round the mulberry bush...
'Doc

5071. Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 23:19:57 UTC
From: epkearn_twelve@rondomondo.eircom.br.ie.ru
Message-ID: <3e0253e5.5305936@news.eircom.net>
Source record: 128810
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

fpkearn_twelve@rondomondo.eircom.tv.ie.au (pk) wrote:

> it is my opinion that there are plenty of reports floating around of both
> proven and suspected interference with aircraft systems which show up for
> a few seconds and once corrected/eliminated by the crew (cabin or cockpit)
> do not occur.

21Jun2000 UK: Airlines test device to trace mobiles.
By Keith Harper, Transport editor.

Airlines are testing warning devices in their cockpits to locate active mobile phones after tests by the civil aviation authority revealed that mobiles were a threat to the safety of aircraft.

Tests carried out by the CAA on board two aircraft found that phone transmissions produced interference levels which could disrupt aircraft systems.

The tests back up the existing CAA ban on the use of mobile phones on aircraft while the engines are running.
The CAA said last night: `We are not happy with the present state of affairs. Tougher measures are being taken by airlines, but if they do not work, we will have to consider alternatives, including extra shields in the cabin to stop interference in the cockpit.'
The CAA, Britain's regulatory authority for the industry, dismissed suggestions that passengers should be forbidden to take mobiles on board.
`But we have to face the fact that accidents happen and that mobiles which are switched off and stowed in the holds can turn themselves on, and pose a threat to safety.'
The CAA's tests found that interference levels varied with small changes in the location of the telephone and that passengers in the path of the transmission reduced the signal. This meant that the number of passengers could affect the level of interference.

Source: GUARDIAN 21/06/2000 P11

5072. DF Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-19 23:34:43 UTC
From: arrow146@aol.com
Message-ID: <20021219183443.11072.00000167@mb-mc.aol.com>
Source record: 128812

Arrow Antenna NEW Product.

<A HREF="http://arrowantennas.com/loop.html">DF Loop Antenna</A>

Never know when you need to track down some
interference or noise.
This is a re-design of the loop we have been
making for the FAA for quite sometime.

Thanks for reading this.

73 Al Lowe N0IMW
<A HREF="http://ArrowAntennas.com">ArrowAntenna.com</A>

5073. Re: Auto tuner phase detector

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 00:23:07 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <LptM9.9211$4j5.5020210@newssvr28.news.prodigy.com>
Source record: 128811

Hi Gary...I guess they have raised their prices a bit. You could play with some cheaper devices, but I didn't have a ton of luck with them. I tried a MC3356 fm subsytem chip which has plenty of limiting, but the output is low...about 100mv as I recall. I followed the chips with MCL SAR-3 monolithic amps to boost the level up to that needed by a diode DBM.

The reason for the log amp/limiters was to provide dynamic range...and to provide a constant level to the DBM. Since you are using a steady signal from the MFJ, you probably don't need a limiter. You might want to look at something like a MC1496 active DBM, which requires a lot less signal than a diode DBM...at least on the signal port. It is still widely available.

I use toroid current sampling at the elements...it is nonlinear, but roughly equal from the two samplers, so the effects cancel.

In my case the only problem with the AD8302 was asking it to work just beyond it's dynamic range spec. With the addition of the limiters I got 30db more range. I can key the mike and not speak, and still get a solid phase reading now.

--
73,
Larry N8LP
www.telepostinc.com/n8lp.html

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20021219172921.08358.00000186@mb-fu.aol.com...
> >Gary, I have done extensive testing lately regarding phase detectors
>
> You certainly have Larry, thanks for the info, just what I was looking
for.
>
> >There is only one device I tried that I think would work in
> >your case...an Analog Devices AD8302.
>
> Looked briefly at the spec sheet for the 8302, looks like it would work
quite
> well except for the $30 price tag and the type package they offer. The
> evaluation board was $151, both over buget , at least for the moment.
> >For the limiting amps I
> >use AD606's
> These are $50 each. Aren't the limiting amps just to provide zero
crossings to
> the 8302? Do they have to be log amps?
>
>

> >Even though the AD8302 by itself would
> >theoretically have worked, I got phase variation of over 10 degrees
without
> >the log amps.
>
> How do you get your voltage and current samples? Is the phase variation
due to
> the sampling devices, or do you think it is something in the AD8302?
>
> Visited your website, very informative. Looking forward to QST article,
sounds
> like you have done some nice work. Thanks again for the information.
>
> 73 Gary N4AST
>

5074. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 00:41:26 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E026736.4010406@ieee.org>
Source record: 128813

Gilbert Mouget wrote:

> OC_CAM's Razor, <Cecil.A.Moore@ieee.org> says...
>>Dr. Best has failed to demonstrate how to take two phase-locked IC-706's,
>>each outputting their maximum 100 watts into 50 ohm transmission lines, i.e.
>>V=70.7V at I=1.414A, and superpose those two and only two waves to obtain
>>141.4V at 2.828A for a total of 400 watts. Maybe you can show us how to do
>>that, Peter?
>
> If the two IC-706 are connected in parralel then you need a 25 ohms line
> and a 25 ohm load. You get 70.7 V in 25 ohms, that is 200 watts and not
> 400.

But Dr. Best claims to be able to superpose powers to get more than the
sum of the two input powers. See my reply to him.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5075. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 00:53:49 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E026A1D.2090606@ieee.org>
Source record: 128814

VE9SRB wrote:
> "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
> news:3E00A167.9030802@ieee.org...
>
>>Dr. Best has failed to demonstrate how to take two phase-locked IC-706's,
>>each outputting their maximum 100 watts into 50 ohm transmission lines,
>> i.e.
>>V=70.7V at I=1.414A, and superpose those two and only two waves to obtain
>>141.4V at 2.828A for a total of 400 watts. Maybe you can show us how to do
>>that, Peter?

> I have never said that you could do what Cecil is suggesting above - i.e.
> take two separate sources and combine them such that they deliver more total
> power than the sum of the power being delivered by each.

Steve, you say you can do it in your QEX article. Here's the quote: "... the forward source power of 92.831 W combines in phase with the re-reflected power of 0.555 W, resulting in a total forward traveling power of 107.736 W." If you can do that with a 92.831W wave and a 0.555W wave, why can't you do it with two 100W waves?

> Superposition
> principles can be simply applied to the voltages and currents in this system
> to demonstrate that this is not possible.

You cannot have it both ways, Steve. Either it is possible to combine two waves of 92.831W and 0.555W to get 107.736W or it is not.

In your article, you say the "two rearward traveling waves 1 and 2" cancel. We know that is reflected power because their voltages and currents are 180 degrees out of phase. Where does the energy in the canceled waves go, Steve? Could it be that the destructive interference in those two canceled waves is exactly the constructive interference energy you try to disguise in your energy equation? Of course it is! The constructive interference energy in your equation is really re-reflected power.

An impedance discontinuity is symmetrical. Your equation of:

P1 + P2 + constructive interference = Pfwd2

has to be perfectly matched to the equation on the other side of the impedance discontinuity. Anything else violates the conservation of energy principle.

P3 + P4 - destructive interference = Pref1
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

5076. Re: Snake Antenna for 160 meters ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 01:20:38 UTC
From: Dan/W4NTI <w4nti@NOSPAMmindspring.com>
Message-ID: <attr95cta1@slb3.atl.mindspring.net>
Source record: 128815

It was originally used as a receive only antenna for 160 and possibly 80.
Transmit on it? Probably done better with a .5 wave of mini 8 to a dummy
load. Or just stick a light bulb on the end. May do pretty good
locally...grin.

Dan/W4NTI

"rich a." <rckchp@comcast.net> wrote in message
news:6dc33f40.0212171655.58a95a71@posting.google.com...
> I agree with "Doc". About a month or so ago I first heard of the
> "Snake" antenna via an on air discussion between two hams.
>
> In that qso one ham was adamant that it was a great all band antenna,
> not only for recieving but transmitting as well. He gave a detailed
> description on how to make one : 136' of any type coax, the inner
> conductor and outer braid soldered together at the far end (and then
> weather sealed), the outer braid opened (cut) right at the PL259
> connector at the rig end. Stretched out in as straight a line as
> possible but that wasn't critical could be bent (snaked!) around as
> necessary to fit on your property.
>
> I had just aquired a 500' spool of RG8X so I immediately made one and
> tried it. It did work OK on recieving on 160, 80 & 40 meters.....but
> no better or less noisy than my 40 meter dipole. Wasn't worth a fart
> in a windstorm for transmitting. Just my experience.....your milage
> may vary......
> \
> Rich K2CPE
>
> 'Doc <w5lz@cwis.net> wrote in message news:<3DFE9233.624BFC81@cwis.net>...
> > N1RZB,
> > They work fairly well as a receiving antenna, but
> > not well at all for transmitting. QST had an artical
> > about them a number of years ago...
> > 'Doc

5077. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 01:32:05 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <attrum$gi5$1@slb2.atl.mindspring.net>
Source record: 128816
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Doc:

Heh, heh...

[snip]
"'Doc" <w5lz@cwis.net> wrote in message news:3E025405.76E45262@cwis.net...
> Here we go 'round the mulberry bush...
> 'Doc
[snip]

Whenever the technology jocks in this group go around the mulberry bush, as they
often do, I am reminded of what Humpty said in Alice's Wonderland.

--
"When I use a word", Humpty Dumpty said, in a rather scornful tone,
"it means just what I choose it to mean, neither more nor less."

"The question is", said Alice, "whether you can make words mean so many
different things."

"The question is", said Humpty Dumpty, "Who is to be master: - that's all."

--Lewis Carol, "Alice in Wonderland - The Turtle
soup"
--

I wonder who is the Master of Reflections? Heh, heh...

--
Peter K1PO
Indialantic By-the-Sea, FL

5078. Re: Follow up to Dec. 8th post about "Loop Skywire"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 02:05:44 UTC
From: rckchp@comcast.net
Message-ID: <6dc33f40.0212191805.768bf5aa@posting.google.com>
Source record: 128817

Richard,

Thanks for the interesting info about Ushuaia. I always enjoy learning
something about the local conditions of the area I've contacted.
Nothing better than an eyewitness account. By the way, I tried
emailing you direct but my message to you "bounced" with an error
message saying your mailbox was full. Better check on that.

Regards,
Rich K2CPE

richardharrison@webtv.net (Richard Harrison) wrote in message
news:<4939-3E01EA87-202@storefull-2313.public.lawson.webtv.net>...
> Rich, K2CPE wrote:
> "He was in Ushuaia, LU8XP."
>
> Thank you for the identification. He wasn`t using my rhombic. YPF, the
> Argentine Oil Company has facilities which they confiscated from us on
> the north side of the island.
>
> Ushuaia, when I was there, had only one hotel and it was very primative.
> It`s a very cold place and the hotel had an enormous pot-bellied stove
> near the front door.
>
> Ushuaia backs up against a mountain range which cuts off the north side
> of the island, but Argentine "highway" No. 1 starts right there. Ushuaia
> has a deep-water port which is denied the north side of the island by
> tides which normally exceed 30-feet. When the tide goes out up there,
> it`s more than a mile from where the shore was to where the shore now
> is. The "highway" connecting Ushuaia with the north is incredibly
> precarious. We tried using Ushuaia`s port one time, then it was back to
> landing craft and barges to ferry goods between ships far out at sea and
> the shore. We had to put our oil loading terminal far out in the sea to
> ship out our production. Daily hurricane winds made that operation fun
> too. A deep-water port at Ushuaia wasn`t of much help then, but an oil
> pipeline could have made it useful to ship out the oil from the north.
> We didn`t have time to build a pipeline, but maybe YPF has.
>
> Best regards, Richard Harrison, KB5WZI

5079. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 02:11:34 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <q%uM9.433190$QZ.67255@sccrnsc02>
Source record: 128818

Routes used by commercial aircraft. It is controlled by the FAA. My knowledge of it is limited to what I need to know to fly safely (large kites). I am sure there are pilots on here that could give you more details.
"Dave Holford" <holford@sympatico.ca> wrote in message news:3E021CB6.470CFD84@sympatico.ca...
>
>
> I know this is drifting off topic, but what on earth is 'commerical
> airspace'? And, what other types are there?
>
> Dave

5080. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 02:17:19 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <v04velo4gs7602@corp.supernews.com>
Source record: 128719
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

C'mon, Doc. Let the poor guy in on it. We all know it's witchcraft.

..

"'Doc" <w5lz@cwis.net> wrote in message news:3E025405.76E45262@cwis.net...
>
>
> Here we go 'round the mulberry bush...
> 'Doc

5081. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 02:25:43 UTC
From: dplatt@radagast.org
Message-ID: <v04vt7mr7jr226@corp.supernews.com>
Source record: 128720

>> I know this is drifting off topic, but what on earth is 'commerical
>> airspace'? And, what other types are there?

>Routes used by commercial aircraft. It is controlled by the FAA. My
>knowledge of it is limited to what I need to know to fly safely (large
>kites). I am sure there are pilots on here that could give you more details.

That might be a way of referring to what the FCC calls "Class B"
airspace. It's the airspace in and around major U.S. airports.

There's a sort of broad, flat "funnel" shape defined around such
airports, covering the airspace where commercial airliners fly on
their way into and out of the airport.

Air traffic within Class B airspace is restricted in a number of
ways. You have to be carrying a radio which can communicate with the
air-traffic controllers, you have to have certain other equipment if
you're flying under "instrument flight rules" (e.g. when visibility is
poor), and if I recall correctly (I'm not a pilot) you have to
establish radio contact with the air traffic controllers and gain
permission to enter the airspace. There are a bunch of other regs
which pilots have to know about.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

5082. Re: How much are 1950s issues of QST worth?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 02:26:02 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212191826.73fe1ab0@posting.google.com>
Source record: 128721

Bob Miller <bxmillerSpamNot@texas.net> wrote in message
news:<wRQCPpk9m2X+ud5qjefObc6uKhp9@4ax.com>...
> BICisfag <ll@jj.com> wrote:
>
> >.
>
> There are always plenty of issues of QST for sale on Ebay. Do a search and see
> the prices -- maybe a couple of bucks an issue.
>
> Bob
> k5qwg

Thats probably about the going rate at hamfests. Just depends...I
bought a few 1930's qst's for 2$ a piece, but thats been a while. From
that person, I got 50's issues for 1$. But I have loads of them I got
free from people that decided to clear them out after 40-50 years. I
have a good few from the 40's, many in the 50's and 60's. Some issues
are probably worth more than others. IE: one of the 1955 issues has a
reproduction of the first QST inside it. Also your special issues like
the one after Pearl Harbor where they closed the ham bands down with
the yellow insert. Jan 42 I think.. I have two of those...:/ I've got
a july '35 issue with a picture of a mobile setup on it. Used kind of
a tripod mounted whip on the back fed with twisted pair wire. I think
the call on the spare tire says W9MSY. There is also a pix of another
experimental mobile setup . The vehicle was completely copper clad.
H.P. Maxim was still the president when that issue came out. Those old
QST's are interesting reading. Think bootleggers are a new thing? Not
hardly...In 1935, there were more bootleggers on 5m, than licensed
hams by the complaints I read. MK

5083. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 03:02:14 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <3E028836.BE968D2B@sympatico.ca>
Source record: 128722

Oh, you mean controlled airspace.
I wondered when airspace became commercial since my Airspace Manual and
the FAA don't seem to be familar with the term.

Thanks
Dave

CW wrote:
>
> Routes used by commercial aircraft. It is controlled by the FAA. My
> knowledge of it is limited to what I need to know to fly safely (large
> kites). I am sure there are pilots on here that could give you more details.
> "Dave Holford" <holford@sympatico.ca> wrote in message
> news:3E021CB6.470CFD84@sympatico.ca...
> >
> >
> > I know this is drifting off topic, but what on earth is 'commerical
> > airspace'? And, what other types are there?
> >
> > Dave

5084. Re: Newbie question about antenna materials

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 05:24:45 UTC
From: Larry Makoski <Makos327@worldnet.att.net>
Message-ID: <xQxM9.70228$hK4.5814270@bgtnsc05-news.ops.worldnet.att.net>
Source record: 128723

"Nenlaven" <nenlaven@webdreamland.com> wrote in message
news:97503afa.0212191233.29006301@posting.google.com...
> Over the next couple of weeks I am going to try my hand at making a
> 10m beam antenna. I have all the measurements I need for the length of
> the elements and the spacing, etc, but I have a few questions about
> the materials involved and the actual construction.
>
> 1 - For wire antennas, do you remove the insulation from the wire or
> leave it on? From reading on here I am pretty sure it can remain.

It can reamin on - it doesn't matter.
>
> 2 - Does it make a difference whether the wire is stranded or solid?

Again, no difference.

>
> 3 - I am going to be using treated lumber for the boom and for the
> supports for the elements. Is it okay for the wire to lay directly on
> the wood, or should I put in some supports to raise it up above the
> wood a bit?

You can lay it right on your supports.

Larry W2LJ

5085. Re: Antenna advice for a Beginner in San Diego Area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 05:31:44 UTC
From: Larry Makoski <Makos327@worldnet.att.net>
Message-ID: <4XxM9.70261$hK4.5814069@bgtnsc05-news.ops.worldnet.att.net>
Source record: 128724

For short wave listening you can run a wire out from wherever your receiver is to the nearest tree or other support. For receiving, the length isn't critical. Usually SWL's just run as long a line as possible and connect it to the back of their receivers. Heck, when I lived at home with my folks when I was a kid I just ran some bell wire around the perimeter of my room. I tacked it to the baseboard molding and ran the free end to my SW receiver. It worked great!

If your getting interference from a really close by transmitter; their might not be much you can do, if their transmitter is overloading your receiver's front end. However, if the offending station is using a vertical antenna (tower) the a horizontally polarized antenna like a longwire or dipole might help just a wee bit.

Larry W2LJ

5086. Re: Follow up to Dec. 8th post about "Loop Skywire"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 06:06:11 UTC
From: richardharrison@webtv.net
Message-ID: <650-3E02B353-76@storefull-2311.public.lawson.webtv.net>
Source record: 128725

Hi Rich,
Thank you for the mailbox notice. I`ll try to clear it.

I am impressed with what Rich, K2CPE did with a low horizontal loop using low power on his first attempt. Ushuaia is near enough to the antarctic circile, and a very long way from North America. The first day of summer is a couple of days away. Daytime temperatures are probably above freezing at times. There is no complete darkness during a very short night, there is an hour or two of twilight.

On the warmer north side of the island, there was record breaking high temperature during the middle of one or two of those long days while I was there. It reached 72 F degrees. I was there one winter, too, and that is more problematic. July is a booger. Cold and you only glimpse the sun for a while.

Radio reception is very good because the noise is low and you are surrounded by oceans. Lots of severe storms but zero lightning. It`s too cold for thunderstorms. South African and even U.S. stations are well recived on medium wave. As Rich demonstrated, shortwave is excellent.. Oilfield hands had trouble with SSB. Couldn`t keep hands off speech clarifier and channel change knobs so they often missed each other when trying to communicate. I pulled the stuff out of land vehicles and replaced it with VHF FM and some tall towers for the fixed stations. Much improved results! I could listen to stateside AM stations with my little handheld Hitachi portable, the noise was so low. We could often talk to an oilfield supplier in Midland Texas on a 33 MHz 5W FM Motorola Handitalkie we had connected to a vertical dipole about 30 feet off the ground. This was due to the solar cycle, of course.

We had a visit from a "Little America" team much farther south which was listening to and recording "whistlers", low frequency anomalies resulting from solar flux. I think they enjoyed a short break from the deep freeze.

Best regards, Richard Harrison, KB5WZI

5087. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 07:34:37 UTC
From: remove_ok1sip@atlas.cz
Message-ID: <5f5159fa.0212192334.31f12779@posting.google.com>
Source record: 128726
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

"John LeMay" <jlemay@njmc.com> wrote in message
news:<pan.2002.12.18.05.04.59.328626@njmc.com>...
> On Tue, 17 Dec 2002 13:28:54 +0000, CW wrote:
> I took this to mean a tuner isn't required, but it may help.

Exactly this I had in mind. Maybe my English is not so perfect to
express my mind exactly. Moreover, the term "a tuner" is often used
for a more complex circuit, at least a Pi-network, perhaps combined
with a SWR meter, maybe even with automatic microprocessor balancing.
Such a tuner would be really far too much for the aim.

BR from Ivan

5088. Re: Ant Model software

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 09:35:28 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0212200135.3cb02b6c@posting.google.com>
Source record: 128727

Eskay <ve3juaNO@SPAMrac.ca> wrote in message news:<3E01FC4D.6090100@SPAMrac.ca>...
> Proggy is called 4nec2 from Arie (not a Ham)in Holland.
> 73 de VE3JUA...
>
You are right.

Forgive my curiosity, but I wonder how you came to this conclusion ?
(about not being a ham) :-)

Greetings (from Holland) and a merry Christmas,

Arie.

5089. Re: Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 09:43:40 UTC
From: Nick <n_rw-7@no-go.ya_ho.o.aw_ay.con.invalid>
Message-ID: <65p50v08kpga19007lna7fckspgvf6tc5f@4ax.com>
Source record: 128728
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

- And on Thu, 19 Dec 2002 23:19:57 GMT, it was spake thus
<3e0253e5.5305936@news.eircom.net> said in message
epkearn_twelve@rondomondo.eircom.br.ie.ru (pk):

> `But we have to face the fact that accidents happen and that mobiles which
> are switched off and stowed in the holds can turn themselves on, and pose
> a threat to safety.'

So why don't they insist that batteries are removed from phones and put in a
pocket whilst the phone is put in the bag in the hold....

I know some phone's aren't designed to have batteries removed easily, but
that's no excuse is it !

There could be an RX designed to be fitted to aircraft so that as people are
boarding the TX of the mobile would be picked up and amplified for the crew
to hear, - you know like when a mobile's poling the network when it's next to
a speaker.... I know they don't do it all the time but surely there would be
some way to jam the signals or do something to make the phone's no the
aircraft pole the network before the engines are started....
An announcement could then be made that someone has a mobile in their pocket
that's not turned off and the aircraft won't be leaving til it's sorted !!

Just thinking aloud to the keyboard.....!

There's always an answer...

--
7 3 for now, Nick G7COC
g7coc at
www.nrw.clara.net
nrw7 on Yahoo Messenger & nickw7coc on MSN Messenger too !

5090. Re: Uncertainties on F/B- and F/R-ratio

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 10:11:50 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0212200211.29fc83dd@posting.google.com>
Source record: 128729

k3bu@aol.com (Yuri Blanarovich) wrote in message
news:<20021219104538.14082.00000357@mb-cg.aol.com>...
>
> I better try it. I am looking forward to "play" with it.
>
You could download the latest 5.0 version, but the Genetic Algorithms
are only included in the new to release 5.1 version. I hope this will
be in a few weeks. This 5.1 version is not yet officially available,
because I am not yet quite happy with what characteristics to specify
for optimization and I will have to do some further testing to deliver
a relatively failsave package.

> optimized for the height and ground quality it will be implemented in. This is
> why inclusion of terrain and ground conditions (sloping hill, sand/salt water
> front) will be also very helpful.
> This would for example show, why I had problems with 1600 ft beverages going
> down on sloping hill (they were "deaf") before I put them up. When I cut them
> in half, they were OK.

Ground conditions can be specified, but because 4nec2 is based on
nec-2 it's not possible to specify sloping hills. You could use a
'two-stage' ground conditions, as if you were on a high plateau, but I
do not think this will addequate model a sloping beverage because the
beverage requires a relatively constant distance between the wire and
ground.

> Another factor is antenna structures (towers, guy wires) and other hard to
> model stuff (houses, electrical wiring, etc.) within couple wavelengths that
> contribute to distortion or enhancement of the array performance.
> Are we going too far? :-)(

If you take the time to collect all the real-world XYZ coordinates and
if you have enough memory on you machine, its throughout possible to
model them and see how they affect the pattern.
For instance I once modelled almost all the wiring, fences and gutters
in, on and around my house to see what effect they had on near- and
far-field pattern.

> I didn't have the chance to use 4NEC2, I hope to do that soon, I wonder if
> others have used it and their comments.

Some like it, some don't. I must admit it's more difficult to use than
for instance EZnec, NecWinPlus or MMANA (the latter being based on the
mininec kernel) because it requires some knowledge about the nec-2
syntax. But it has the advantage of being able to use most of the
official nec-2 cards. It can handle a large number of segmetns and has

some features not available in the other packages. If you don't
require those features I would suggest to choose one of the more
traditional packages.

> Is there coordinates "translation"
> tool for dimensions between various programs? That would help to compare
> results and fine tune the designs.

It can read nec-2 and AO (antenna optimizer) or Nec-wires files. To
convert between other modelling packages use the MuliNec freeware by
AC6LA(www.qsl.net/ac6la/multinec.html)

Arie.

5091. Practical experience on using burried radials, insulated or not ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 10:41:50 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0212200241.3ba2468b@posting.google.com>
Source record: 128730

Hello...,

During some years now I am using both used insulated wires and none-insulated wires for my burried radials. I use both some 40 radial wires and a number of more deep ground rods (6m long copper conduit-pipes)

Anybody having practical experience on the difference between using insulated or none-insulated burried radials.

I would say, use none-insulated wire, because it is in more contact with the surrounding earth. But during the years it is more subject to desintegration and oxidation and I dont think copper-oxide is such a good conductor.

Arie.

5092. Re: WANT Active Dual SWR Power Meter or schematic

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 12:55:21 UTC
From: restamp@hotmail.com
Message-ID: <ZqEM9.88$Vo5.353893@twister.columbus.rr.com>
Source record: 128731
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.antenna,alt.radio.amateur

In article <3DFA5F1D.69FA154F@flex.com>,
frazier@flex.com <frazier@flex.com> wrote:
>I've got a SignalCrafter model 30 SWR Power meter and would like to find
>another in working condition, or another SWR/Power meter with similar
>features.
>
>The SignalCrafter Model 30 has two meters. The lefthand one displays
>Power in three ranges, 20W, 200W, and 2000W. The righthand meter
>displays SWR, and under the SWR scale is something they called
>reflection coefficient. It also provides the ability to switch between
>three antennas and a dummy load. I don't care about the switching for
>antennas, as I only use mine for a SWR/Power meter, and use a different
>custom switching array for my antenna switches.
>
>The SignalCrafter Model 30 was made in the early 80's and is an ACTIVE
>SWR meter. There is no "set" knob or need to mess around with anything
>other than the switches that select the power level. It's operation is
>very similar to the dual panel meters that are built into the JW Miller
>AT2500 Antenna Tuner of similar vintage.
>
>Does anyone know of the availability of a SignalCrafter Model 30 or
>similar unit, or have a schematic that could be used to modify (add
>circuitry) to the existing cross needle swr meters in my MFJ
>Differential T Tuners? I really dislike the cross needle meters that
>require you to interpret the swr by reading a red line where the needles
>cross. I can pretty easily make a new dial scale if I can get a
>schematic to build the active circuitry to drive the meters.

Except for the fact that the meters are reversed, and there is
no Reflection Coefficient scale, I believe the Autek Research
WM1 Deluxe Computing SWR/Wattmeter would fit your bill. I have
one and like it, and an added bonus is that it can read Avg Pwr
or PEP:

<http://www.autekresearch.com/wm1.htm>

Rob

5093. Re: Practical experience on using burried radials, insulated or not ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 13:08:30 UTC
From: richardharrison@webtv.net
Message-ID: <21473-3E03164E-6@storefull-2315.public.lawson.webtv.net>
Source record: 128732

Arie wrote:
"But during the years it (bare copper) is more subject to disintegration and oxidation and I don`t think copper-oxide is such a good conductor."

Reasonable speculation as there are manufactured copper-oxide rectifiers.
But the trepidation is not necessary.

Don`t worry about buried bare copper. Radio station I worked in back in 1949 already had a dozen or so years on its bare radials. Station still operates using the same radials and with undiminished field strengths as measured at designated points distant from the station. This is not unusual. 10,000 AM radio stations can`t be wrong. Many have 75 years on their bare radials which are unaffeced in their practical efficiencies in all that time. Sure you can find some exception in all those examples, but they are few, not the rule.

Best regards, Richard Harrison, KB5WZI

5094. Re: Auto tuner phase detector

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 14:12:14 UTC
From: Bibby <bibby@attbi.com>
Message-ID: <2zFM9.43698$qF3.3118@sccrnsc04>
Source record: 128733

Larry and Gary, this has been a very interesting thread. Would you mind giving me a couple of references where I can read further on such phase detectors?

Malcolm W1/GW3NJY

"Larry Phipps" <larry@telepostinc.com> wrote in message news:LptM9.9211$4j5.5020210@newssvr28.news.prodigy.com...
>
> Hi Gary...I guess they have raised their prices a bit. You could play with
> some cheaper devices, but I didn't have a ton of luck with them. I tried a
> MC3356 fm subsytem chip which has plenty of limiting, but the output is
> low...about 100mv as I recall. I followed the chips with MCL SAR-3
> monolithic amps to boost the level up to that needed by a diode DBM.
>
> The reason for the log amp/limiters was to provide dynamic range...and to
> provide a constant level to the DBM. Since you are using a steady signal
> from the MFJ, you probably don't need a limiter. You might want to look at
> something like a MC1496 active DBM, which requires a lot less signal than a
> diode DBM...at least on the signal port. It is still widely available.
>
> I use toroid current sampling at the elements...it is nonlinear, but roughly
> equal from the two samplers, so the effects cancel.
>
> In my case the only problem with the AD8302 was asking it to work just
> beyond it's dynamic range spec. With the addition of the limiters I got
> 30db more range. I can key the mike and not speak, and still get a solid
> phase reading now.
>
> --
> 73,
> Larry N8LP
> www.telepostinc.com/n8lp.html
>
>
>
> "JGBOYLES" <jgboyles@aol.com> wrote in message
> news:20021219172921.08358.00000186@mb-fu.aol.com...
> > >Gary, I have done extensive testing lately regarding phase detectors
> > >

> > You certainly have Larry, thanks for the info, just what I was looking
> for.
> >
> > >There is only one device I tried that I think would work in
> > >your case...an Analog Devices AD8302.
> >
> > Looked briefly at the spec sheet for the 8302, looks like it would work
> quite
> > well except for the $30 price tag and the type package they offer. The
> > evaluation board was $151, both over buget , at least for the moment.
> > >For the limiting amps I
> > >use AD606's
> > These are $50 each. Aren't the limiting amps just to provide zero
> crossings to
> > the 8302? Do they have to be log amps?
> >
> >
> > >Even though the AD8302 by itself would
> > >theoretically have worked, I got phase variation of over 10 degrees
> without
> > >the log amps.
> >
> > How do you get your voltage and current samples? Is the phase variation
> due to
> > the sampling devices, or do you think it is something in the AD8302?
> >
> > Visited your website, very informative. Looking forward to QST article,
> sounds
> > like you have done some nice work. Thanks again for the information.
> >
> > 73 Gary N4AST
> >
>
>

5095. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 14:32:47 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <jSFM9.71077$hK4.5847960@bgtnsc05-news.ops.worldnet.att.net>
Source record: 128734

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E026A1D.2090606@ieee.org...
>
> > Superposition
> > principles can be simply applied to the voltages and currents in this
system
> > to demonstrate that this is not possible.
>
> You cannot have it both ways, Steve. Either it is possible to combine two
waves
> of 92.831W and 0.555W to get 107.736W or it is not.
>

Two very narrow conical beam orthogonal EM waves travel in space. They intersect. One wave has a power density of 92.831 W/m^2. The other wave has a power density of 0.555 W/m^2. The waves have the same polarization and they are in phase. What is the resulting power density at the point where they intersect?

Steve VE9SRB

5096. Re: Gain of top of the line Radio Shack TV antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 14:55:27 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <B9udnUA81rFbs56jXTWcqg@comcast.com>
Source record: 128735

Don,

My offhand guess is that your existing antenna does not have anywhere near
16 DB gain, CH19 being near the low end of the band. You might want to do a
quick and dirty test, cut a folded dipole for CH19, and compare that to your
present antenna. Double check this, but I think the CH19 carrier is at
501.25 MHz. The length of the dipole would be about 11-1/8 inch.

Tam
"Don" <dgilbert@nascospg.com> wrote in message
news:a235b6a6.0212191357.1fd179f5@posting.google.com...
> What is the gain on channel 19 of the best outdoor radio shack
> antenna. I have one on my house. (Tower). I have trouble picking up
> channel 19 and was wondering if it would be worth it to build a
> channel specific beam antenna. using software it says I can get about
> 16 db of gain. Thanks for any help!

5097. Re: Antenna advice for a Beginner in San Diego Area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 15:07:22 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <1WCdnTJvZpcMrJ6jXTWcpQ@comcast.com>
Source record: 128736

Joseph,

What you need is a trap tuned to the BC station. If it is an AM station you can get by with a high pass filter. What is the frequency of the station? Is there a ground terminal for the antenna? What is the lowest SW frequency that you want to receive?

Tam

"Joseph Stahley 3rd" <jestahley3@cox.net> wrote in message news:qP5M9.3502$6k.136488@news1.west.cox.net...

5098. Re: Antenna advice for a Beginner in San Diego Area

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 15:32:22 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <aKGM9.14524$6k.904920@news1.west.cox.net>
Source record: 128737

Also see SWL Antennas at URL:
http://ac6v.com/swl.htm#ANT

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com

5099. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 15:32:58 UTC
From: richardharrison@webtv.net
Message-ID: <18093-3E03382A-16@storefull-2313.public.lawson.webtv.net>
Source record: 128738

Steve, VE9SRB wrote:
"What is the resulting power density at the point where they intersect?"

Yes, and what is the price of eggs in Macao?

I can add powers in an antenna for a power gain of 100 times guite easily. This is concentration of power which otherwise might go in many directions into only one general direction.

The possibilities of power gain between two powers with two possible directions as on a transmission line are limited as a maximum total power to the arithmetic sum of the two powers. Pao, pao, queijo, queijo! Mais nada!

Best regards, Richard Harrison, KB5WZI

5100. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 15:53:46 UTC
From: tdonaly@aol.com
Message-ID: <20021220105346.14161.00000157@mb-ca.aol.com>
Source record: 128739

Richard Harrison wrote,
>
>The possibilities of power gain between two powers with two possible
>directions as on a transmission line are limited as a maximum total
>power to the arithmetic sum of the two powers. Pao, pao, queijo, queijo!
>Mais nada!
>
>Best regards, Richard Harrison, KB5WZI
>

Where did you get that, Richard? Terman again?
73,
Tom Donaly, KA6RUH

5101. Re: Gain of top of the line Radio Shack TV antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 15:56:20 UTC
From: Harris <n2ah@spam.sprynet.com>
Message-ID: <E4HM9.103740$a8.85393@news4.srv.hcvlny.cv.net>
Source record: 128740

"Don" wrote:
> What is the gain on channel 19 of the best outdoor radio shack
> antenna. I have one on my house. (Tower). I have trouble picking up
> channel 19 and was wondering if it would be worth it to build a
> channel specific beam antenna. using software it says I can get about
> 16 db of gain.

I doubt you find gain information on the Radio Shack antennas. It's possible that their top of the line UHF only antenna will give better reception than the UHF/VHF combo.

The RS UHF antennas are corner reflectors with many yagi-like directors. I have used those antennas with good results, but not for stations 100 miles away (except during enhanced propagation conditions).

Channel Master CLAIMS "approx 14 dB gain" for their corner reflector UHF antenna. See:
http://www.starkelectronic.com/cmuhf.htm I'm always a bit skeptical of antenna gain claims, especially if the don't specify dBd or dBi, and espescially for broadband antennas.

Probably the best bet for a UHF antenna would be a parabolic reflector type. I've see some with ~7 foot reflectors. See:
http://pages.cthome.net/fmdx/Ant_recvrs.html (Scroll down to bottom)

or

http://www.sateng.com/catalog/category_mfg_search.asp?category=Antenna%20Systems&mfg=Wade%20Antenna%20Products

or

http://dxworld.com/uhf_ant.html

Since Channel 19 is at the low end of the UHF band, I think a good long boom yagi optimized for CH 19 would be a good choice.

Remember, gain is only part of the problem. You must have something close to a line of sight path to the station. If there are large hills or other obstructions in the way, it will be very difficult to get a station 100 miles away. Antenna height is at least as important as gain. Low loss coax is also important (at least RG-6, or see if you can get some discarded "hardline" from the local cable company). I doubt that you're ever going to get a snow free picture at that distance though.

Art Harris N2AH

5102. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 16:22:39 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <etHM9.7135$B_6.1527157@news20.bellglobal.com>
Source record: 128741

"VE9SRB"
> What is the resulting power density at the point
> where they intersect?

Is there a 'Law of Conservation of Power Density' ?

:-)

5103. Re: Gain of top of the line Radio Shack TV antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 16:24:41 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <8vHM9.7139$B_6.1527651@news20.bellglobal.com>
Source record: 128742

"Harris"
> Low loss coax is also important (at least RG-6,
> or see if you can get some discarded
> "hardline" from the local cable company).

Less important if he uses a mast-mount remote preamplifier at the top end of the coax.

5104. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 17:04:39 UTC
From: richardharrison@webtv.net
Message-ID: <6459-3E034DA7-11@storefull-2318.public.lawson.webtv.net>
Source record: 128743

Tom, KA6RUH wrote:
"Where did you get that Richard?"

Power addition is more fundamental than EM theory. Natural law is: energy is neither created nor destroyed. Thus, a system without additional energy input can`t have more energy than exists in the system.

Pao, Pao, Queijo, Queijo! Mais Nada! is an old Portuguese Proverb which I find is the most succinct, illustrative, and emphatic, I`ve heard. Translation is: Bread is bread, cheese is cheese, and there`s no possible further discussion..

Best regards, Richard Hsarrison, KB5WZI

5105. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 17:26:03 UTC
From: tdonaly@aol.com
Message-ID: <20021220122603.14116.00000192@mb-ca.aol.com>
Source record: 128744

J. Harvey wrote,
>"VE9SRB"
>> What is the resulting power density at the point
>> where they intersect?
>
>Is there a 'Law of Conservation of Power Density' ?
>
>:-)
>
>

You'd think there was after reading Cecil. I believe Dr. Best is
trying to teach Cecil the correct way to add electromagnetic
wave intensities. The problem is, that if you exclude some of
the information when you're doing a superposition calculation,
you can claim that the calculation violates the conservation of
energy laws. This is what Cecil is doing in his obsessive ranting
concerning the addition of powers in a transmission line. The object
seems to be more to win an argument through the time-honored,
but wrong, if-you-caint-answer-me-on-one-defined-strictly-by-me-
question, then I'm automatically right. This was the technique used
by the kids in my home town when arguing with other kids over
such overpowering questions such as "Does God exist?" (You cain't prove
he don't.) and "Are black people inferior?", spawned by
self-ordained hick ministers in Sunday school. It didn't work well for
those kids then, and it doesn't seem to be working for Cecil now.
73,
Tom Donaly, KA6RUH
(P.S, Those kids didn't use the term "black people" and neither did
the ministers who got them going.)

5106. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 17:36:26 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <qyIM9.7212$cN3.1185382@news20.bellglobal.com>
Source record: 128747

"Richard Harrison"
> Power addition is more fundamental than EM theory.
> Natural law is: energy is neither created nor destroyed.

Please do not confuse 'power' and 'energy'. If the power is constant over time and the situation is steady state, then you can jump back and forth without being incorrect. But it is best to be very clear and use exactly the right words always to avoid confusion.

I'm sure that you know that already - I'm just documenting it for NG posterity.

5107. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 17:36:45 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <v06l9eo9qf5vd0@corp.supernews.com>
Source record: 128745

A bit of a stretch to get in your politically correct statement Tom. What racial politics has to do with transmission lines is beyond me, but in the holiday spirit, I award you 25 brownie points.

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Tdonaly" <tdonaly@aol.com> wrote in message
news:20021220122603.14116.00000192@mb-ca.aol.com...
>
> J. Harvey wrote,
> >"VE9SRB"
> >> What is the resulting power density at the point
> >> where they intersect?
> >
> >Is there a 'Law of Conservation of Power Density' ?
> >
> >:-)
> >
> >
>
> You'd think there was after reading Cecil. I believe Dr. Best is
> trying to teach Cecil the correct way to add electromagnetic
> wave intensities. The problem is, that if you exclude some of
> the information when you're doing a superposition calculation,
> you can claim that the calculation violates the conservation of
> energy laws. This is what Cecil is doing in his obsessive ranting
> concerning the addition of powers in a transmission line. The object
> seems to be more to win an argument through the time-honored,
> but wrong, if-you-caint-answer-me-on-one-defined-strictly-by-me-
> question, then I'm automatically right. This was the technique used
> by the kids in my home town when arguing with other kids over
> such overpowering questions such as "Does God exist?" (You cain't prove
> he don't.) and "Are black people inferior?", spawned by
> self-ordained hick ministers in Sunday school. It didn't work well for
> those kids then, and it doesn't seem to be working for Cecil now.
> 73,
> Tom Donaly, KA6RUH
> (P.S, Those kids didn't use the term "black people" and neither did
> the ministers who got them going.)

>
>
>

5108. Re: Gain of top of the line Radio Shack TV antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 18:31:46 UTC
From: Harris <n2ah@spam.sprynet.com>
Message-ID: <mmJM9.109646$a8.58617@news4.srv.hcvlny.cv.net>
Source record: 128748

"J. Harvey" wrote:

> "Harris"
> > Low loss coax is also important (at least RG-6,
> > or see if you can get some discarded
> > "hardline" from the local cable company).
>
> Less important if he uses a mast-mount remote preamplifier at the top end
of
> the coax.

Yes, but it's got to have a low noise figure. And if it craps out he's got a problem. When I was getting TV over the air, I had a preamp in the attic just ahead of my splitter.

Art Harris

5109. Re: How much are 1950s issues of QST worth?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 18:33:23 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <6eo60v8jb0uref0obrlb8c49vr0913enlv@4ax.com>
Source record: 128749

On Thu, 19 Dec 2002 22:27:01 +0000, scott <acepilot@bloomer.net>
wrote:

>Or buy the whole set of 1950's issues on their CDs, so that would be 120 issues
>for $20 or $30...or a bit less than about 30 cents per issue.

Just remember that these are photocopies.
You can search the index but that is all. I'd like to go over the
articles with OCR and put them in a database so I could search the
entire list for words, topics, phrases...etc. Unfortunately that is
more time than I'm willing to devote to the project.

Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)

>
>Scott
>N0EDV
>
>
>Bob Miller wrote:
>
>> BICisfag <ll@jj.com> wrote:
>>
>> >.
>>
>> There are always plenty of issues of QST for sale on Ebay. Do a search and see
>> the prices -- maybe a couple of bucks an issue.
>>
>> Bob
>> k5qwg

5110. Re: Auto tuner phase detector

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 18:35:53 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <dqJM9.9276$4j5.5151343@newssvr28.news.prodigy.com>
Source record: 128746

I don't remember any particular articles that I referenced, but I got a lot of good info from a couple of manufacturers websites...namely Analog Devices and Mini Circuits Labs. If you interested in an auto tuner, you might also want to check out the SGC website...they have the manuals for their tuners online, complete with schematics. I got some ideas from the circuit for the SG-239 for my auto tuner design, although I didn't wind up using their phase detector.

--
73,
Larry N8LP
www.telepostinc.com/n8lp.html

"Bibby" <bibby@attbi.com> wrote in message
news:2zFM9.43698$qF3.3118@sccrnsc04...
> Larry and Gary, this has been a very interesting thread. Would you mind
> giving me a couple of references where I can read further on such phase
> detectors?
>
> Malcolm W1/GW3NJY
>
>
> "Larry Phipps" <larry@telepostinc.com> wrote in message
> news:LptM9.9211$4j5.5020210@newssvr28.news.prodigy.com...
> >
> > Hi Gary...I guess they have raised their prices a bit. You could play
> with
> > some cheaper devices, but I didn't have a ton of luck with them. I
tried
> a
> > MC3356 fm subsytem chip which has plenty of limiting, but the output is
> > low...about 100mv as I recall. I followed the chips with MCL SAR-3
> > monolithic amps to boost the level up to that needed by a diode DBM.
> >
> > The reason for the log amp/limiters was to provide dynamic range...and
to
> > provide a constant level to the DBM. Since you are using a steady
signal
> > from the MFJ, you probably don't need a limiter. You might want to look
> at
> > something like a MC1496 active DBM, which requires a lot less signal
than
> a
> > diode DBM...at least on the signal port. It is still widely available.
> >

> > I use toroid current sampling at the elements...it is nonlinear, but
> roughly
> > equal from the two samplers, so the effects cancel.
> >
> > In my case the only problem with the AD8302 was asking it to work just
> > beyond it's dynamic range spec. With the addition of the limiters I got
> > 30db more range. I can key the mike and not speak, and still get a
solid
> > phase reading now.
> >
> > --
> > 73,
> > Larry N8LP
> > www.telepostinc.com/n8lp.html
> >
> >
> >
> > "JGBOYLES" <jgboyles@aol.com> wrote in message
> > news:20021219172921.08358.00000186@mb-fu.aol.com...
> > > >Gary, I have done extensive testing lately regarding phase detectors
> > >
> > > You certainly have Larry, thanks for the info, just what I was looking
> > for.
> > >
> > > >There is only one device I tried that I think would work in
> > > >your case...an Analog Devices AD8302.
> > >
> > > Looked briefly at the spec sheet for the 8302, looks like it would
work
> > quite
> > > well except for the $30 price tag and the type package they offer.
The
> > > evaluation board was $151, both over buget , at least for the moment.
> > > >For the limiting amps I
> > > >use AD606's
> > > These are $50 each. Aren't the limiting amps just to provide zero
> > crossings to
> > > the 8302? Do they have to be log amps?
> > >
> > >
> > > >Even though the AD8302 by itself would
> > > >theoretically have worked, I got phase variation of over 10 degrees
> > without
> > > >the log amps.
> > >
> > > How do you get your voltage and current samples? Is the phase
variation
> > due to
> > > the sampling devices, or do you think it is something in the AD8302?
> > >

> > > Visited your website, very informative. Looking forward to QST
article,
> > sounds
> > > like you have done some nice work. Thanks again for the information.
> > >
> > > 73 Gary N4AST
> > >
> >
> >
>
>

5111. Re: Gain of top of the line Radio Shack TV antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 18:52:48 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <%FJM9.7259$cN3.1194765@news20.bellglobal.com>
Source record: 128750

"Harris"
> Low loss coax is also important (at least RG-6,
> or see if you can get some discarded
> "hardline" from the local cable company).

"J. Harvey" wrote:
> Less important if he uses a mast-mount remote
> preamplifier at the top end of the coax

"Harris"
> Yes, but it's got to have a low noise figure.

As you probably know, every dB of cable loss between the antenna and the first preamplifier is another dB worse noise figure. It doesn't take much coaxial cable to effectively destroy the noise figure of a good preamplifier. For TV frequencies (especially the higher channels), the math is compelling and logic forces the preamplifier up the tower.

> And if it craps out he's got a problem.

Or a ladder.

> When I was getting TV over the air, I had a preamp in the attic
> just ahead of my splitter.

You're absolutely correct that if you don't *need* it up the tower, then the attic is good location (perhaps 30 feet, several dB, better than the basement). It depends if the signal is weak or not.

A long time ago, I built some NBS Yagis (6-element IIRC) scaled to VHF TV Channel 8. They 'kicked dust in the face of' some very large commercial TV antennas, but they only worked on one channel of course.

5112. Re: why we can able to talk on mobile while we are on a plane when most of the arial are ground-based?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 18:58:26 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <r8p60v48nntavrosurt6ftlgv8ee0oasma@4ax.com>
Source record: 128751
Cross-posted to: alt.cellular.ericsson,alt.cellular.gsm,rec.radio.amateur.antenna,uk.radio.amateur

On Thu, 19 Dec 2002 23:19:57 GMT,
epkearn_twelve@rondomondo.eircom.br.ie.ru (pk) wrote:

>fpkearn_twelve@rondomondo.eircom.tv.ie.au (pk) wrote:
>
>> it is my opinion that there are plenty of reports floating around of both
>> proven and suspected interference with aircraft systems which show up for
>> a few seconds and once corrected/eliminated by the crew (cabin or cockpit)
>> do not occur.
>

Any electronic device *may* cause interferences. That is not to say
that they do, or will. The same device *may* affect the systems in
one aircraft and not another. When they interfere the degree of
interference is usually different between planes.

>
>
>21Jun2000 UK: Airlines test device to trace mobiles.
>By Keith Harper, Transport editor.
>
>Airlines are testing warning devices in their cockpits to locate active
>mobile phones after tests by the civil aviation authority revealed that
>mobiles were a threat to the safety of aircraft.

Rewording a bit.
Mobile phones may be a threat in some instances. In the case of some
instances the CAA will play it say and just say they are a threat.
Here in the US they are supposed to be turned off, but people forget.
Laptop computers are one of the worst radiators and sources of
interferences. However, if they band those they will likely lose a
goodly percentage of their business travelers.

>
>Tests carried out by the CAA on board two aircraft found that phone
>transmissions produced interference levels which could disrupt aircraft
>systems.

I know it's semantics, but the phones transmissions might disrupt
aircraft systems under some circumstances.
>
>The tests back up the existing CAA ban on the use of mobile phones on
>aircraft while the engines are running.
>The CAA said last night: `We are not happy with the present state of

>affairs. Tougher measures are being taken by airlines, but if they do not
>work, we will have to consider alternatives, including extra shields in
>the cabin to stop interference in the cockpit.'
>The CAA, Britain's regulatory authority for the industry, dismissed
>suggestions that passengers should be forbidden to take mobiles on board.

That will basically be the only way to prevent them from being turned
on...course they'd have to be banned from checked luggage as well.

"Although" all they'd have to do is require all cell phones be sealed
in a foil bag. Even at full transmit power they'd not interfere with
anything.

>`But we have to face the fact that accidents happen and that mobiles which
>are switched off and stowed in the holds can turn themselves on, and pose
>a threat to safety.'
>The CAA's tests found that interference levels varied with small changes
>in the location of the telephone and that passengers in the path of the
>transmission reduced the signal. This meant that the number of passengers
>could affect the level of interference.
>
>Source: GUARDIAN 21/06/2000 P11

Although they used some poor choices of words the article is
essentially true. It just doesn't include other devices such as
laptops which are potentially more of a problem than the cell phones.

Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)

5113. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 19:17:24 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E036C88.4070009@attbi.com>
Source record: 128752
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,sci.electronics

Hold it! Hold it! Hold it!

There is no assurance that the reflected WAVE is 180 degrees out of phase!! A low impedance, relative to Zo, produces a negative phase shift in the reflected voltage wave and NO phase shift in the reflected current wave. A high impedance, relative to Zo, produce a negative phase shift in the current wave. The magnitude of the phase shift depends upon the complex impedance of the load.

A reflection coefficient is a complex value and can have any phase relationship depending on the resistance and reactance in the load. A Smith chart shows all possible reflection coefficients.

The reflected current and voltage can have any load factor, cosine theta, between zero and one. So, the reflected WAVES can have any power factor and must be treated as both POWER and Reactive Volt*Amperes [VARS].

==========

Steve N8NM wrote:
> OK, let me see if I understand now...
>
> Using the I Smac hypothetical:
>
> Initially, the 100 watt transmitter attempts to deliver it's full
> output to the load, since it has no clue that the load is not matched
> to the source. When the energy hits the mismatch, a portion of it, 10
> watts, is reflected back to the source, 180 degrees out of phase.
> This signal, being out of phase with the source, opposes 10 watts
> worth of source energy from subsequent waves, so the source only puts
> out 90 watts once the reflected waves reach it. Further, once the
> reflected wave reaches the source, it is re-reflected back toward the
> load after undergoing another phase inversion, so, the wattmeter will
> now read 100 watts forward, since the re-reflected signal is now 360
> degrees out of phase... Meanwhile, the source is only supplying 90
> watts and the load is dissipating 90 watts, so 10 watts is "standing"
> in the line... If I'm correct, that would be the "standing
> wave".....?

5114. Re: Auto tuner phase detector

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 19:42:09 UTC
From: jgboyles@aol.com
Message-ID: <20021220144209.06623.00000211@mb-cj.aol.com>
Source record: 128753

>Would you mind
>giving me a couple of references where I can read further on such phase
>detectors?

Hi Malcom, A couple of phase detector designs in Amateur publications:
QST July 1980 pp 11-16. "The Impedance Match Indicator".
The ARRL Antenna Compendium vol. 5 pp 197-199 "A better Kind of Automatic
Antenna Tuner".
73 Gary N4AST

5115. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 20:17:43 UTC
From: tdonaly@aol.com
Message-ID: <20021220151743.08878.00000143@mb-cl.aol.com>
Source record: 128754

Fred wrote,
>
>A bit of a stretch to get in your politically correct statement Tom. What
>racial politics has to do with transmission lines is beyond me, but in the
>holiday spirit, I award you 25 brownie points.
>
>--
>For Admiral Poindexter's folks:
>Bomb, anthrax, attack, acid, hijack, skyjack
>sniper, plutonium, nuclear, Big Mac, jihad
>Democrats, terror, Howdy Doody, Oprah
>
> "Those that sacrifice freedom for security deserve neither"
>
Thanks for the brownie points, Fred. By the way, what does
"Those that sacrifice freedom for security deserve neither" have
to do with antennas and transmission lines?
73,
Tom Donaly, KA6RUH
(P.S. By the way, I agree with you militia guys interpretation of
the second amendment. Not that I like it, however.)

5116. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 21:30:15 UTC
From: richardharrison@webtv.net
Message-ID: <18093-3E038BE7-28@storefull-2313.public.lawson.webtv.net>
Source record: 128759

J. Harvey wrote:
"Please do not confuse "power" and "energy".

That seems a polite accusation, not a caution.
Please identify an instance in which I`ve made the wrong word choice and I`ll correct it.

For the benefit of some who may be rusty on the difference, energy is measured in joules which are also called wattseconds. Joules are one of those unnecessary terms such as Hertz which we would be better off without. Hertz is identical to the descriptive term "cycles per second" which leaves no doubt as to meaning. CPS has two less letters than Hertz. The other name for the joule is the wattsecond which also leaves no doubt as to meaning. At least the term Joule has 5 less letters than Wattsecond! The wattsecond, as is obvious, is the product of watts and seconds. So, watts times seconds equals joules.

Thus, watts are joules per second, as Cecil often correctly uses in his postings in this newsgroup. Joules per second, where I would have just said watts, is OK by me. To each his own! The advantage is, Cecil would probably not say wattseconds per second. To me anyway, wattseconds per second sounds as an acceleration-like term. Don`t point out that there is a "per" missing in wattseconds per second. It`s a waste of bandwidth.

As long as you don`t get the joules/sec equals watts wrong, there should be no confusion.

Best regards, Richard Harrison, KB5WZI

5117. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 21:31:10 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E038C1E.9000702@ieee.org>
Source record: 128755

VE9SRB wrote:
> Two very narrow conical beam orthogonal EM waves travel in space. They
> intersect. One wave has a power density of 92.831 W/m^2. The other wave
> has a power density of 0.555 W/m^2. The waves have the same polarization
> and they are in phase. What is the resulting power density at the point
> where they intersect?

True to form, you divert the issue with irrelevant examples of ever
increasing difficulty. Are you afraid to give me straight answers
to my simple questions?

According to your QEX article, since the beams are orthogonal to each
other, the two powers will simply add without destructive or constructive
interference.

Here's my personal corollary to the conservation of energy principle.

****
* W5DXP's corollary #1: Given a lossless impedance discontinuity in a
* lossless transmission line, any constructive interference on one side
* of the discontinuity must be accompanied by an equal magnitude of
* destructive interference on the other side of the discontinuity and
* vice versa. Interference energy flows across the discontinuity from
* the destructive interference side to the constructive interference side.
****

The superposition principle predicts four component powers from Pfwd1
and Pref2. You call them P1, P2, and the "two rearward traveling waves"
which I will call P3 and P4. So here's the rest of your equations, Steve,
you know the ones you left out of your article for obvious reasons?

You say: If the phase angle between V1 and V2 is zero, then
Pfwd2 = P1 + P2 + 2 Sqrt(P1) Sqrt(P2), forward power toward the load.

But since the phase angle between V3 and V4 is 180 degrees, then
Pref1 = P3 + P4 - 2 Sqrt(P3) Sqrt(P4), reflected power toward the source.

An impedance discontinuity in a transmission line is symmetrical. Your
term, + 2 Sqrt(P1) Sqrt(P2), is constructive interference energy. It is
exactly equal in magnitude to the - 2 Sqrt(P3) Sqrt(P4) destructive
interference energy term, i.e.

+ 2 Sqrt(P1) Sqrt(P2) - 2 Sqrt(P3) Sqrt(P4) = zero

which clearly indicates that your constructive interference energy
is being supplied by the destructive interference between two reflected
waves, i.e. your constructive interference energy is *re-reflected energy*.

That makes about a dozen assertions in your QEX article false. Did you
think nobody would notice?
--
cheers, CAM http://www.qsl.net/w5dxp

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5118. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 21:33:10 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E038C96.6040408@ieee.org>
Source record: 128756

Tdonaly wrote:

> Richard Harrison wrote,
>>Pao, pao, queijo, queijo! Mais nada!
>
> Where did you get that, Richard? Terman again?

Did Terman write in Spanish? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5119. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 21:39:11 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E038DFF.5080008@ieee.org>
Source record: 128757

Tdonaly wrote:
> You'd think there was after reading Cecil. I believe Dr. Best is
> trying to teach Cecil the correct way to add electromagnetic
> wave intensities.

Tom, maybe you can answer my question. How do you add electromagnetic wave intensities to obtain more energy than exists in the two waves without destructive interference happening somewhere? Doesn't the conservation of energy principle apply to electromagnetic waves? Is it possible, as Dr. Best asserted last week, to obtain constructive interference without a corresponding destructive interference? If it is, you guys have just invented perpetual motion.
--
cheers, CAM http://www.qsl.net/w5dxp

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5120. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 21:41:39 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E038E93.4040806@ieee.org>
Source record: 128758

J. Harvey wrote:
> "Richard Harrison"
>
>>Power addition is more fundamental than EM theory.
>>Natural law is: energy is neither created nor destroyed.
>
>
> Please do not confuse 'power' and 'energy'. If the power is constant over
> time and the situation is steady state, then you can jump back and forth
> without being incorrect. But it is best to be very clear and use exactly
> the right words always to avoid confusion.

The power we are talking about *is* energy in motion. One joule in one
second is still one watt, last time I looked.
--
cheers, CAM http://www.qsl.net/w5dxp

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5121. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 21:55:33 UTC
From: richardharrison@webtv.net
Message-ID: <25786-3E0391D5-45@storefull-2311.public.lawson.webtv.net>
Source record: 128761

Dave Shrader wrote:
"There is no assurance that the reflected WAVE is 180 degrees out of phase!!"

Please consult Terman. The 1955 edition says on page 94:
"It is also to be noted that the effect of a reactive load is merely to displace the position of the minima; the distance between adjacent minima still remains a half wavelength, just as in the open- and short-circuited cases.

Best regards, Richard Harrison, KB5WZI

5122. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 22:02:39 UTC
From: Joe Strain <yodar@cfl.rr.com>
Message-ID: <3sMM9.92820$Db4.2608418@twister.tampabay.rr.com>
Source record: 128760

I remember getting a hydrogen generator for that very purpose from FAIR
Radio years ago to inflate a baloon for a wartime lifeboat transmitter

yodar

"Bob Miller" <bxmillerSpamNot@texas.net> wrote in message
news:9db=PTxylQjO3XJWTU1eFRH2iPni@4ax.com...
> kc5cqa <kc5cqa@devtex.net> wrote:
>
> >Noticed the car dealers here are using lighter than air gas balloons
> >for attracting attention to their autos. One in particular caught my
> >attention. line with small flags then balloon, and then line with
> >flags continuing up to next baloon and then on and on for several
> >balloons. Line topped out at about around 200 feet. Now for my
> >question. When I was a kid in the 1950's my dad had a recorder, but
> >it was wire, being a kid, I got ''into it''. I remember it was very
> >hard to break, and very thin. Ok with all that said,,, what would be
> >involved in making a two meter antenna using these 'odds and ends'????
> >Would there be a website that 'explories more of these ideas???
> >would apprecite any ideas and input. thanks cl 73
>
> I wouldn't do it, myself. If the thing comes down, and the feedline or
tether
> wire drapes over power lines, somebody could get electrocuted. You could
use
> non-metallic kite string for your tether. But you're going to need a
metallic
> feedline to the 2 meter antenna on the balloon.
>
> Also, isn't this how Ben Franklin discovered electricity? :-)
>
> Bob
> k5qwg
>

5123. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 22:19:52 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <au0528rrd1@slb6.atl.mindspring.net>
Source record: 128762

Cecil:

[snip]
> The power we are talking about *is* energy in motion. One joule in one
> second is still one watt, last time I looked.
> --
> cheers, CAM http://www.qsl.net/w5dxp
[snip]

Wow! What a concept.

Say... is that true, even if that same Joule keeps coming back around again
and again
because of multiple re-reflections, each time passing by in the opposite
direction?

I'm sceptical... Sounds kinda like perpetual motion to me. :-)

--
Peter K1PO
Indialantic By-the-Sea, FL

5124. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 22:44:40 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E039D58.3030507@ieee.org>
Source record: 128763

Peter O. Brackett wrote:
> Cecil:
>>The power we are talking about *is* energy in motion. One joule in one
>>second is still one watt, last time I looked.
>
> Wow! What a concept.
>
> Say... is that true, even if that same Joule keeps coming back around again
> and again
> because of multiple re-reflections, each time passing by in the opposite
> direction?

Of course it's true, by definition, Peter. Consider a superconducting ring in which one joule passes a point every second. That's one watt at that point. You can measure that same one watt in 1000 different places around that ring as long as you don't dissipate any of it. Just to refresh your memory, from the IEEE dictionary: "power - the rate of generating, transferring, or using energy". Note "transferring energy" which is exactly what a transmission line does both in the forward and reverse directions. Forward energy flow and reverse energy flow *is* power, by IEEE definition.
--
cheers, CAM http://www.qsl.net/w5dxp

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5125. Re: DF Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 22:48:18 UTC
From: PieroIK2VTJ <pierocarusoNONVOGLIOSPAM@ardf.it>
Message-ID: <au06n3$379m2$1@ID-83989.news.dfncis.de>
Source record: 128764

"Arrow146" <arrow146@aol.com> ha scritto nel messaggio
news:20021219183443.11072.00000167@mb-mc.aol.com...
> Arrow Antenna NEW Product.
>
> <A HREF="http://arrowantennas.com/loop.html">DF Loop Antenna</A>

For that price, they could have made a bit more effort to make it a perfect
round! :-))

--
73 de IK2VTJ, Piero.

http://www.ardf.it
http://www.qsl.net/ik2vtj

Togli/Remove
NONVOGLIOSPAM
dall'indirizzo/from address

5126. Re: Practical experience on using burried radials, insulated or not ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 23:10:13 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3e03a89b_3@news1.prserv.net>
Source record: 128765

Arie:

I can further expand on Richard's comments. I had occasion in 1991 to make some measurements in Puerto Rico at an establishment which was out in the swamps just west of Toa Alta. The ground mat and radial system was constructed of bare 10 ga. Copperweld, and had been in place about 10 years. The deep thinkers were concerned that the thin copper covering was eroded away and the whole thing needed replacing. We looked at the ground mat, some 40 acres of it, and found a few broken welds, but no obvious widespread damage to the wires themselves. We also noticed that there were a lot of remnant pieces of the Copperweld, short pieces cut off and left lie where cross connections and splices were made. A large quantity of these were taken back to the labs and there copper thickness was measured, and no loss could be measured. Now, I don't know if you live where the soil is more corrosive than Puerto Rico swamps, but copper longevity there appears to be as long as anyone would need. Unfortunately, Hurricane Georges destroyed enough of the site in 1999 that the experiment ended, so I have no follow-on data, but there was still no apparent damage to the ground mat in November 1999, and there was no cathodic protection either, by the way.

--
Crazy George
Remove NO and SPAM from return address
<4nec2@gmx.net> wrote in message
news:ee90361b.0212200241.3ba2468b@posting.google.com...
> Hello...,
>
> During some years now I am using both used insulated wires and
> none-insulated wires for my burried radials. I use both some 40 radial
> wires and a number of more deep ground rods (6m long copper
> conduit-pipes)
>
> Anybody having practical experience on the difference between using
> insulated or none-insulated burried radials.
>
> I would say, use none-insulated wire, because it is in more contact
> with the surrounding earth. But during the years it is more subject to
> desintegration and oxidation and I dont think copper-oxide is such a
> good conductor.
>
> Arie.

5127. Re: Newbie question about antenna materials

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 23:14:59 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <HpydnWlBRpN_L56jXTWcqA@ctc.net>
Source record: 128672

> Over the next couple of weeks I am going to try my hand at making a
> 10m beam antenna. I have all the measurements I need for the length of
> the elements and the spacing, etc, but I have a few questions about
> the materials involved and the actual construction.
>
> 1 - For wire antennas, do you remove the insulation from the wire or
> leave it on? From reading on here I am pretty sure it can remain.
>
> 2 - Does it make a difference whether the wire is stranded or solid?
>
> 3 - I am going to be using treated lumber for the boom and for the
> supports for the elements. Is it okay for the wire to lay directly on
> the wood, or should I put in some supports to raise it up above the
> wood a bit?

The insulation on the wires will effect the length to some small ammount , maybe only an inch or two. You probalby will not notice the effect. If the antenna does seem to resonate slightly lower in frequency , it may be the insulation, cut an inch off each wire and try again. You may notice a simiar effect due to the wood. Also the wood should be well water proofed or things could change if the wood is wet and the wire is layed on the wood..

5128. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 23:20:19 UTC
From: tdonaly@aol.com
Message-ID: <20021220182019.12112.00000191@mb-df.aol.com>
Source record: 128766

Cecil wrote,
>
>Tom, maybe you can answer my question. How do you add electromagnetic
>wave intensities to obtain more energy than exists in the two waves
>without destructive interference happening somewhere? Doesn't the
>conservation of energy principle apply to electromagnetic waves? Is
>it possible, as Dr. Best asserted last week, to obtain constructive
>interference without a corresponding destructive interference? If it
>is, you guys have just invented perpetual motion.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>

If you look at the two slits and shine a light behind them you'll get an interference
pattern of dark and light stripes on a plane surface held in front of them. At any
point on the surface, the intensity will be proportional to (E1 + E2)^2, but, if you take
the average intensity over all the points on a line perpendicular to the stripes you
should get an intensity proportional to E1^2 + E2^2. This is a lousy explanation, but you should
get something better out of a college text. In the case of a transmission line, if you
measure the power in your lossless line, anywhere, taking into account _all_ the voltage and current
waves, forward and backward, you should find the power the same wherever you look, and
the power going into your transmission line should be the same as that going out.
Calculating the power in the individual waves and adding them together is liable
to get you in trouble, especially if you're consistent and take the square of each
individual reflected voltage and add them all together instead of adding all the reflections together
for a specified direction and then taking the square.
73,
Tom Donaly, KA6RUH

5129. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 23:21:03 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E03A5DF.9040402@ieee.org>
Source record: 128767

VE9SRB wrote:
> Two very narrow conical beam orthogonal EM waves travel in space. They
> intersect. One wave has a power density of 92.831 W/m^2. The other wave
> has a power density of 0.555 W/m^2. The waves have the same polarization
> and they are in phase. What is the resulting power density at the point
> where they intersect?

Actually, this is as good an illustration as any of what I am getting at.
The energy in those two waves is fixed. Here's what you said earlier:

> The total forward power increases as a direct result of the vector
> superposition of forward voltage and current. This DOES NOT require a
> corresponding destructive interference process (reduction of power
> elsewhere) to balance the law of conservation of power ...

So Steve, using your EM space wave example above, please explain how you
can achieve constructive interference without a corresponding destructive
interference occurring somewhere else. How do you manage to create energy
just when and where you need it?

You apparently can make all the light interference rings brighter without
any corresponding dark rings. Could you video tape that experiment for us?
--
cheers, CAM http://www.qsl.net/w5dxp

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5130. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 23:32:10 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E03A87A.50302@ieee.org>
Source record: 128768

Tdonaly wrote:
> If you look at the two slits and shine a light behind them you'll get an
> interference
> pattern of dark and light stripes on a plane surface held in front of them.

Yes, yes, yes, but Dr. Best can do that experiment without any dark rings
appearing. All of Dr. Best's rings are bright. How does he do that?

>> Dr Best said:
>>> The total forward power increases as a direct result of the vector
>>> superposition of forward voltage and current. This DOES NOT require a
>>> corresponding destructive interference process (reduction of power
>>> elsewhere) to balance the law of conservation of power ...

Note he capitalizes "DOES NOT require ... destructive interference". That's
pretty clear, Tom. All of Dr. Best's rings are brighter than the average
brightness. None of Dr. Best's rings are darker than the average brightness.
He says there is no destructive interference, only constructive interference.

> Calculating the power in the individual waves and adding them together is
> liable to get you in trouble, ...

But that's exactly what Dr. Best did. He says 75 joules/sec combined with 8.33
joules/sec equals 133.33 joules/sec. He obtains power gain out of those two waves
without any destructive interference occurring. Exactly how does he do that?
--
cheers, CAM http://www.qsl.net/w5dxp

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5131. Re: Practical experience on using burried radials, insulated or not ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 23:40:42 UTC
From: Bill M <don'tspamme-exray@caribe.net>
Message-ID: <v07agqoko2a760@corp.supernews.com>
Source record: 128669

Crazy George wrote:
> Arie:
>
> I can further expand on Richard's comments. I had occasion in 1991 to make
> some measurements in Puerto Rico at an establishment which was out in the
> swamps just west of Toa Alta. The ground mat and radial system was
> constructed of bare 10 ga. Copperweld, and had been in place about 10 years.
> The deep thinkers were concerned that the thin copper covering was eroded
> away and the whole thing needed replacing.

In the places I've seen, the corrosion can vary wildly from one extreme
to the other.
In eastern NC where I once lived, the soil would eat up anything metal
in short order. I work in cable TV and we had the cheapo ground rods
literally disappear below ground. Here in the Caribbean copper suffers
only mildly but aluminum and certain other metals go quickly in the
air...less rapidly in the soil.
Its hard to place a definite answer on this question.
-BM

5132. Re: How much are 1950s issues of QST worth?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 23:40:59 UTC
From: scott <acepilot@bloomer.net>
Message-ID: <3E03AA8B.C4C7D5@bloomer.net>
Source record: 128670

True, not as nice as EAA's Sport Aviation CD set!!

Scott N0EDV
http://corbenflyer.tripod.com
http://groups.yahoo.com/group/ParasolAirplanes
Building RV-4
Gotta Fly or Gonna Die!

Roger Halstead wrote:

> On Thu, 19 Dec 2002 22:27:01 +0000, scott <acepilot@bloomer.net>
> wrote:
>
> >Or buy the whole set of 1950's issues on their CDs, so that would be 120 issues
> >for $20 or $30...or a bit less than about 30 cents per issue.
>
> Just remember that these are photocopies.
> You can search the index but that is all. I'd like to go over the
> articles with OCR and put them in a database so I could search the
> entire list for words, topics, phrases...etc. Unfortunately that is
> more time than I'm willing to devote to the project.
>
> Roger Halstead (K8RI EN73)
> www.rogerhalstead.com
> N833R World's oldest Debonair? (S# CD-2)
>
> >
> >Scott
> >N0EDV
> >
> >
> >Bob Miller wrote:
> >
> >> BICisfag <ll@jj.com> wrote:
> >>
> >> >.
> >>
> >> There are always plenty of issues of QST for sale on Ebay. Do a search and see
> >> the prices -- maybe a couple of bucks an issue.
> >>
> >> Bob
> >> k5qwg

--

5133. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-20 23:53:41 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <3E03AD85.23F72598@uci.edu>
Source record: 128671

OC_CAM's Razor wrote:
> Just to refresh your memory, from
> the IEEE dictionary: "power - the rate of generating, transferring, or using
> energy". Note "transferring energy" which is exactly what a transmission line
> does both in the forward and reverse directions. Forward energy flow and
> reverse energy flow *is* power, by IEEE definition.

The word transfer also has a definition and a physical implication - one
you may not be employing correctly here. What exactly is this
transmission line transferring this particular energy TO, Cecil? I
claim that it's not tranferring that energy to anything. I thought
that's also what you were claiming.

But perhaps the IEEE dictionary also defines the concept of power
storage (as opposed to energy storage).

jk

5134. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 00:13:57 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <4nOM9.7488$pS6.1503124@news20.bellglobal.com>
Source record: 128674

"Richard Harrison"
> Power addition is more fundamental than EM theory.
> Natural law is: energy is neither created nor destroyed.

"J. Harvey"
> Please do not confuse 'power' and 'energy'.

"Richard Harrison"
> That seems a polite accusation, not a caution.
> Please identify an instance in which I`ve made
> the wrong word choice and I`ll correct it.

I copied the pair of sentences - again... - at top. It seemed that you were trying to form an argument. Therefore, the juxtaposition and wording of those two statements could quite reasonably be (mis?)interpreted as a statement from you that the first follows from the second. It doesn't.

Furthermore, the first sentence is arguably wrong. One can violate "power conservation" and "power addition" by simply throwing a brick against a cement wall. One cannot violate EM theory by throwing a brick against a cement wall.

There is no 'Law of Conservation of Power' (nor of '...Power Density'). Energy is conserved (but can certainly be 'misplaced' - as heat for example), but any sweeping and general statements about Conservation of Power and "Power addition" being "fundamental" are not correct as general rules.

...Going back to your original posting...

"Richard Harrison"
> The possibilities of power gain between two
> powers with two possible directions as on a
> transmission line are limited as a maximum total
> power to the arithmetic sum of the two powers.
> Pao, pao, queijo, queijo! Mais nada!"

If you'll allow me a particularly complicated form of transmission line (arguably fair if you think about it...), then the quick counter-example is the technology used in Pulse Compression Radar (a classic example in support of my point about there being no such thing as 'The Law of Conservation of Power').

I realize that I'm nit-picking. And I'm referring to the generalities - not to any particular case where power is conserved and power addition works.

Happy Holidays.

5135. Re: DF Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 00:22:37 UTC
From: arrow146@aol.com
Message-ID: <20021220192237.01444.00000167@mb-fq.aol.com>
Source record: 128675

<< "Arrow146" <arrow146@aol.com> ha scritto nel messaggio
news:20021219183443.11072.00000167@mb-mc.aol.com...
> Arrow Antenna NEW Product.
>
> DF Loop Antenna

For that price, they could have made a bit more effort to make it a perfect
round! :-))

--
73 de IK2VTJ, Piero. >>

If it was a perfect round, it would not work as well.

Thank you for your comment.

73 Al Lowe N0IMW
<A HREF="http://ArrowAntennas.com">ArrowAntenna.com</A>

5136. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 00:29:56 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E03B604.1020201@ieee.org>
Source record: 128676

Jim Kelley wrote:
> The word transfer also has a definition and a physical implication - one
> you may not be employing correctly here. What exactly is this
> transmission line transferring this particular energy TO, Cecil?

It's transferring the energy to the load where part of it is rejected.
The rejected part is transferred back along the T-line to the match
point where it is re-reflected by the impedance discontinuity and by
the interference pattern.
--
cheers, CAM http://www.qsl.net/w5dxp

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5137. Re: WANT Active Dual SWR Power Meter or schematic

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 00:34:20 UTC
From: la8ak.xnd@online.no
Message-ID: <3e03ac25.269975509@news.online.no>
Source record: 128677
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.antenna,alt.radio.amateur

On Fri, 20 Dec 2002 12:55:21 GMT, restamp@hotmail.com (Rob Stampfli)
wrote:

>In article <3DFA5F1D.69FA154F@flex.com>,
>frazier@flex.com <frazier@flex.com> wrote:
>>I've got a SignalCrafter model 30 SWR Power meter and would like to find
>>another in working condition, or another SWR/Power meter with similar
>>features.
>>
>>The SignalCrafter Model 30 has two meters. The lefthand one displays
>>Power in three ranges, 20W, 200W, and 2000W. The righthand meter
>>displays SWR, and under the SWR scale is something they called
>>reflection coefficient. It also provides the ability to switch between
>>three antennas and a dummy load. I don't care about the switching for
>>antennas, as I only use mine for a SWR/Power meter, and use a different
>>custom switching array for my antenna switches.
>>
>>The SignalCrafter Model 30 was made in the early 80's and is an ACTIVE
>>SWR meter. There is no "set" knob or need to mess around with anything
>>other than the switches that select the power level. It's operation is
>>very similar to the dual panel meters that are built into the JW Miller
>>AT2500 Antenna Tuner of similar vintage.
>>
>>Does anyone know of the availability of a SignalCrafter Model 30 or
>>similar unit, or have a schematic that could be used to modify (add
>>circuitry) to the existing cross needle swr meters in my MFJ
>>Differential T Tuners? I really dislike the cross needle meters that
>>require you to interpret the swr by reading a red line where the needles
>>cross. I can pretty easily make a new dial scale if I can get a
>>schematic to build the active circuitry to drive the meters.
>
>Except for the fact that the meters are reversed, and there is
>no Reflection Coefficient scale, I believe the Autek Research
>WM1 Deluxe Computing SWR/Wattmeter would fit your bill. I have
>one and like it, and an added bonus is that it can read Avg Pwr
>or PEP:
>
> <http://www.autekresearch.com/wm1.htm>
>
>Rob

could send you the schematic for NYE VIKING power meter (believe it is
part of a tuner), it uses 5 op-amps (an LM324 and an LM358) - it is
not too expensive to make, don't know about the accuracy, but the

problem is to find a frequency independent probe which works - to many amateur constructions aren't too easy to copy with the promissed performance.

73
LA8AK
--
remove ,xnd to reply

5138. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 00:38:08 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E03B7F0.7040208@ieee.org>
Source record: 128678

J. Harvey wrote:
> There is no 'Law of Conservation of Power' ...

From Johnson's "Transmission Lines and Networks", page137:
"The over-all losses are small ... and so we can use the
principle of the *conservation of power*."

Apparently, Johnson recognized the similarity between the joules
in a transmission line and the joules/sec in a transmission line.
The joules/sec in a transmission line haven't been used up yet.
--
cheers, CAM http://www.qsl.net/w5dxp

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5139. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 00:43:39 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E03B905.9030207@attbi.com>
Source record: 128679

Isn't 'displac(ing) the position of the minima' an indeterminate phase shift?

My copy of Terman, also 1955 (and 1948), p 93 states under REACTIVE LOADS [the same paragraph you are quoting]: "... the phase angle of the reflection coefficient will depend upon the ratio of the load reactance to characteristic impedance." This is followed by your statement regarding the displacement [phase shift] of the minima etc.

After the initial 'displacement' [phase shift] the 'normal 1/2 wavelength characteristics repeat as you state.

At the bottom of P 94 Terman continues: 'When the load impedance does not equal the characteristic impedance the phase relations are complicated by the presence of the reflected wave. The phase of the resulting line voltage [or current] then oscillates [[my words 'dynamically varies']] about the phase of the voltage [or current] of the incident wave ..."

This characteristic then exhibits the 1/2 wavelength characteristics.

A resonant antenna is RESONANT only at one frequency where the load impedance is purely resistive [no reactive component]. Very slight deviations from the resonant frequency introduces either capacitive or inductive reactance and therefore the reflection coefficient changes from a REAL number to a COMPLEX number having both amplitude and phase components.

So, if I have any VSWR at the load I have an initial phase shift based upon the ratio of either inductive or capacitive reactance to the Zo of the line. This phase shift is 1/2 wavelength repeatable.

So, my initial statement regarding your statement of a 180 degree phase shift is still accurate. A 180 degree phase shift is valid ONLY for resistive loads. ANY phase shift is possible IF a reactive component exists in the load [for all practical ham purposes we have a complex reflection coefficient and a phase shift that varies as we tune across the band].

Deacon Dave, W1MCE, [for almost 50 years].
Manager, Strategic Product Design, electrical, retired
Program Chief Engineer, USAF S-118 RS/RV Missile Program, retired
Manager, Textron Antenna Range, retired

PS: All those 'retired[s]' identifies that my version of Terman dates to my college days <grin>
==========

Richard Harrison wrote:
> Dave Shrader wrote:
> "There is no assurance that the reflected WAVE is 180 degrees out of
> phase!!"
>
> Please consult Terman. The 1955 edition says on page 94:
> "It is also to be noted that the effect of a reactive load is merely to
> displace the position of the minima; the distance between adjacent
> minima still remains a half wavelength, just as in the open- and
> short-circuited cases.
>
> Best regards, Richard Harrison, KB5WZI
>

5140. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 00:45:40 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E03B979.7080504@attbi.com>
Source record: 128680

BE CAREFUL!!! Hydrogen is explosive, very volatile, remember the
Hindenburg!!!

Deacon Dave, W1MCE
==========

Joe Strain wrote:
> I remember getting a hydrogen generator for that very purpose from FAIR
> Radio years ago to inflate a baloon for a wartime lifeboat transmitter
>
> yodar
>
> "Bob Miller" <bxmillerSpamNot@texas.net> wrote in message
> news:9db=PTxylQjO3XJWTU1eFRH2iPni@4ax.com...
>
>>kc5cqa <kc5cqa@devtex.net> wrote:
>>
>>
>>>Noticed the car dealers here are using lighter than air gas balloons
>>>for attracting attention to their autos. One in particular caught my
>>>attention. line with small flags then balloon, and then line with
>>>flags continuing up to next baloon and then on and on for several
>>>balloons. Line topped out at about around 200 feet. Now for my
>>>question. When I was a kid in the 1950's my dad had a recorder, but
>>>it was wire, being a kid, I got ''into it''. I remember it was very
>>>hard to break, and very thin. Ok with all that said,,, what would be
>>>involved in making a two meter antenna using these 'odds and ends'????
>>>Would there be a website that 'explories more of these ideas???
>>>would apprecite any ideas and input. thanks cl 73
>>
>>I wouldn't do it, myself. If the thing comes down, and the feedline or
>
> tether
>
>>wire drapes over power lines, somebody could get electrocuted. You could
>
> use
>
>>non-metallic kite string for your tether. But you're going to need a
>
> metallic
>
>>feedline to the 2 meter antenna on the balloon.
>>
>>Also, isn't this how Ben Franklin discovered electricity? :-)

>>
>>Bob
>>k5qwg
>>
>
>
>

5141. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 00:52:56 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <EXOM9.7548$pS6.1510908@news20.bellglobal.com>
Source record: 128681

J. Harvey wrote:
> There is no 'Law of Conservation of Power' ...

"OC_CAM's Razor"
> From Johnson's "Transmission Lines and Networks",
> page137: "The over-all losses are small ... and so we
> can use the principle of the *conservation of power*."

That's a regretable error (using the word "principle" in connection with "conservation of power"). Be sure to report it to the author or publisher.

5142. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 01:38:11 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E03C603.9050706@ieee.org>
Source record: 128682

J. Harvey wrote:

> J. Harvey wrote:
>>There is no 'Law of Conservation of Power' ...
>
> "OC_CAM's Razor"
>> From Johnson's "Transmission Lines and Networks",
>>page137: "The over-all losses are small ... and so we
>>can use the principle of the *conservation of power*."
>
> That's a regretable error (using the word "principle" in connection with
> "conservation of power"). Be sure to report it to the author or publisher.

Copyright 1950. :-) The kind of power that exists in a transmission line
is simply the energy in joules passing a certain point in one second. Those
joules are conserved.
--
cheers, CAM http://www.qsl.net/w5dxp

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5143. HP 4815A vs HP 8405A ???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 01:48:15 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <v07i326r95ima4@corp.supernews.com>
Source record: 128683

Aside from the difference in frequency coverage what are the pros and cons
of each for ham antenna work?
tnx
hank wd5jfr

5144. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 01:56:16 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <4TPM9.411920$%m4.127218@rwcrnsc52.ops.asp.att.net>
Source record: 128684

That was the one where the aluminized paint on the fabric covering caught
fire.
"Dave Shrader" <david.shrader@attbi.com> wrote in message
news:3E03B979.7080504@attbi.com...
> remember the
> Hindenburg!!!
>

5145. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 01:58:34 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <eVPM9.71989$hK4.5906973@bgtnsc05-news.ops.worldnet.att.net>
Source record: 128685

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E03A5DF.9040402@ieee.org...
> VE9SRB wrote:
> > Two very narrow conical beam orthogonal EM waves travel in space. They
> > intersect. One wave has a power density of 92.831 W/m^2. The other
wave
> > has a power density of 0.555 W/m^2. The waves have the same
polarization
> > and they are in phase. What is the resulting power density at the point
> > where they intersect?
>
> Actually, this is as good an illustration as any of what I am getting at.
> The energy in those two waves is fixed.
>

Energy is fixed?

What we measure and discuss in our examples is average power. Energy is the time integral of power. Power is the time derivative of energy. Presuming that there is some value of average power, the energy actually increases with time. With increasing time, energy - in terms of energy delivered to a load or energy passing a point in space - is not fixed.

Considering either of these EM waves (separately) passing a point in space, average power or power density is the constant (fixed). In terms of energy, this translates to the following: the time rate of change in energy is constant - the derivative of energy is fixed, not the energy itself. The energy passing this point increases with time.

>
> So Steve, using your EM space wave example above, please explain how you
> can achieve constructive interference without a corresponding destructive
> interference occurring somewhere else. How do you manage to create energy
> just when and where you need it?
>

So, do you believe that when a multipath fade (destructive interference) occurs in a communications link, there must simultaneously be a corresponding multipath enhancement (constructive interference) somewhere else as a balancing act? It sure sounds like you do.

Going back to our two intersecting EM waves:

When these two waves intersect, the total power density at the point of intersection increases in proportion to the square of the resulting total field strength. In terms of energy: the time derivative of energy

increases.

Energy has not been "created" as you keep insisting in your interpretation the problems discussed. It is the rate at which energy is extracted from the resulting wave that increases.

In this case "the wave" is the net wave (field strength) resulting from the combination of two intersecting waves. At the point of intersection, the power density increases - the rate at which energy can be extracted from the wave increases. The law of conservation of power is not violated because any power dissipation at this point would not exceed the power delivered at this point.

Think about this for awhile. My time allotment for the week has been exceeded. Vacation time ...

Steve VE9SRB

5146. wilworkbut Chicken, thanks

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 02:19:12 UTC
From: kc5cqa <kc5cqa@devtex.net>
Message-ID: <csj70vkmtpv3t0s73bpshm73hobjdojucq@4ax.com>
Source record: 128673

Received a ton in info, and check out several good websites, decided
to NOT. May reconsider in future if we move farther 'out'. thanks
to all. cl. 73

5147. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 02:27:41 UTC
From: richardharrison@webtv.net
Message-ID: <6459-3E03D19D-41@storefull-2318.public.lawson.webtv.net>
Source record: 128688

J. Harvey wrote:
"One can violate "power conservation" and "power addition" by simply throwing a brick against a cement wall."

Look up inertia in your dictionary.

Mine says:
"Physics, a. that property of matter by which it retains its state of rest or uniform rectilimnear motion so long as it is not acted upon by an external force. b. an analogous property of a force: electric inertia.

By the IEEE definition of power, power is energy in motion in one case. By the rule of inertia above, power must remain unchanged unless acted upon by an external force.

An oscillatory circuit continues oscillating uniformly forever if its uniform energy motion isn`t sapped by electrical and heat losses or the power isn`t boosted from outside by some impetus. This is, in a sense, conservation of power.

A brick striking a wall has energy of mass and velocity. It acquired the energy through application of power over a given period. When this energy is converted into heat or otherwise transferred, the energy released over the time in which this release takes place, the work done, equals the work done to give the brick its energy.

Power is the rate of doing work. Energy is the sum of the power applied over a time period.

When the time period is a constant, power and energy are interchangeable using the proper scaling factor.

A brick may come to rest more quickly than it was brought up to speed. In this case, the power in the flying brick`s arrest is greater than power applied to bring the brick up to speed. But, it was applied over a shorter period of time to bring the brick to rest. The energy released equals the energy given to put the brick in motion. This is not conservation of power, as we have energy storage in the mass of the moving brick

Our discussion wasn`t about flying bricks. It was about electric waves on transmission lines where the wave velocity is the same in both directions. Even the electrons which may be excited in the process all have the same mass as far as anyone knows. For our purposes it makes no difference whether we use power or energy, if we use the right scale. We have no storage other than the energy contained on the transmission

line. We are not storing energy in the line for rapid release as in a flying brick.

J. Harvey`s argument does not fit waves on a transmission line for our application.

Best regards, Richard Harrison, KB5WZI

5148. Re: HP 4815A vs HP 8405A ???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 02:32:56 UTC
From: Rick Karlquist <richard@karlquist.remove.this.com>
Message-ID: <spQM9.412147$%m4.127386@rwcrnsc52.ops.asp.att.net>
Source record: 128686

The 4815 only measures impedance, nothing else.
For impedances with a magnitude much less
than 50 ohms or, especially, much greater than
50 ohms, it is much more accurate than network
analyzer based instruments. It will also tell you
the phase quite accurately, although not well
enough to measure Q>10. It has a frequency range
up to 108 MHz. It is probably unsuitable for
many antenna measurements because of the low
signal levels involved and the harmonic sampling
used. No way to work around this AFAIK.

The 8405 measures complex voltage. Provide
a source and a directional bridge, and you have
a network analyzer of sorts. It will work well
near 50 ohms, and degrade away from there.
Unlike the 4815, you can drive the antenna with
high signal levels and protect the 8405 with
filters and/or attenuators. This can get around
the harmonic sampling problem. Also, the 8405
goes to 1 GHz.

Both instruments are not exactly "portable",
another disadvantage for antenna work.

Hope that helps.

Rick Karlquist N6RK
(employed by Agilent Technlogies, but
these opinions are my own, not the company's)

that are far from
"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:v07i326r95ima4@corp.supernews.com...
> Aside from the difference in frequency coverage what are the pros and cons
> of each for ham antenna work?
> tnx
> hank wd5jfr
>
>

5149. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 02:34:47 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E03D347.7070000@ieee.org>
Source record: 128687

VE9SRB wrote:
> Energy is fixed?

The average energy flowing past a point is fixed at a certain number
of joules per second as in 100 joules/sec from the transmitter. By
fixed, I mean that the same number of joules passes the measurement
point in the same amount of time.

>>So Steve, using your EM space wave example above, please explain how you
>>can achieve constructive interference without a corresponding destructive
>>interference occurring somewhere else. How do you manage to create energy
>>just when and where you need it?

> Energy has not been "created" as you keep insisting in your interpretation
> the problems discussed. It is the rate at which energy is extracted from
> the resulting wave that increases.

Where does the average increased energy come from, Steve? The rate of average
energy flow in the two waves is fixed. Where does the average increase (constructive
interference) in energy come from if not from a decrease (destructive interference)
in average energy elsewhere? You cannot get 50 watts of constructive interference
when superposing two waves unless there is 50 watts of destructive interference
between two other waves.

Your watts per square meter are *average* values. If you increase the
the average watts per square meter somewhere, you are violating the
conservation of energy principle unless you decrease the average watts
per square meter somewhere else. That's why we get bright and dark interference
rings. I've never seen just bright rings, have you? Yet you are arguing that you
can indeed come up with nothing except bright rings. In systems of the type we
have been discussing, there is no additional source power available. Constructive
interference must be equaled by destructive interference.
--
cheers, CAM http://www.qsl.net/w5dxp

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5150. QSL.NET?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 02:48:50 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E03D692.9040705@ieee.org>
Source record: 128689

Anyone know what has happened to http://www.qsl.net?
--
cheers, CAM http://www.qsl.net/w5dxp

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5151. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 03:21:15 UTC
From: richardharrison@webtv.net
Message-ID: <18092-3E03DE2B-129@storefull-2313.public.lawson.webtv.net>
Source record: 128692

Steve, VE9SRB wrote:
"So, do you believe that when a multipath fade (destructive interference) occurs in a communications link, there must simultaneously be a corresponding multipath enhancement (constructive interference) somewhere else as a balancing act?"

All the power has to go somewhere. When it doesn`t go one place, of course it goes elsewhere.

Terman says:
"Fading of a single sky wave can be explained by the fact that ionospheric reflecting surface is not perfectly smooth, but instead exhibits irregular variations in ionization density. The effect is like a large number of separate components each of which contributes a small component to the total signal."

Ever reflect the sun with a mirror illuminating various spots with the reflected rays?

My observations with a triple space diversity receiving system leads me to believe Terman had it right. When one antenna isn`t being favored with signal, chances are the other antennas are getting a pretty good signal. In fact, even when fading is fairly severe, with three sepatate antennas and receivers, and a good combiner selecting the best of the crop, chances are good that the output of the system is smooth and continuous.

That is evidence to me that the signal that fades away goes elsewhere.

Best regards, Richard Harrison, KB5WZI

5152. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 03:23:19 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <B8RM9.6093$iQ3.1428897@news20.bellglobal.com>
Source record: 128690

"Richard Harrison"
> J. Harvey`s argument does not fit waves on a
> transmission line for our application.

Your posting included the over-reaching phrase "...more fundamental than EM theory". That gave far too much credit to the "priciples" (sic) of power addition and conservation of power.

Furthermore, I've already acknowledged that...

> ...I'm referring to the generalities - not to any
> particular case where power is conserved
> and power addition works.

I believe that we are now in violent agreement.

Happy holidays.

5153. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 03:37:07 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <au0nl3$e8n$0@208.206.142.113>
Source record: 128691

Tdonaly wrote:

> (P.S. By the way, I agree with you militia guys interpretation of
> the second amendment. Not that I like it, however.)

Tom, you just made another philosophical miscalculation. Very few beleivers in the second amendment are "militia types". Most are very ordinary citizens. But they are NOT subjects. Most would far rather live in a world where one didn't ever have to concern himself with the idea of self protection. Reality prevails, however.

Dick

5154. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 04:03:58 UTC
From: richardharrison@webtv.net
Message-ID: <5508-3E03E82E-137@storefull-2317.public.lawson.webtv.net>
Source record: 128693

Dave Schrader wrote:
"When the load impedance does not equal the characteristic impedance the phase relations are complicated by the presence of the reflected wave."

Yes. Reactance shifts the SWR pattern. It has the effect of adding or taking away degrees of transmission line feeding a mismatched load.

The 180 degrees happens at the reflection point as a result of a phase reversal of either the volts or the amps upon the reflection, but not the reversal of both.

The transmission line enforces Zo on both the incident and reflected waves.

The individual waves maintain their in-phase or out-of-phase relations between volts and amps during their propagation on the line. SWR is a manifestation of both waves seen together, not the individual waves which are well behaved.

Best regards, Richard Harrison, KB5WZI

5155. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 06:18:40 UTC
From: tdonaly@aol.com
Message-ID: <20021221011840.06623.00000236@mb-cj.aol.com>
Source record: 128694

Dick Carroll wrote,
>
>
>Tdonaly wrote:
>
>> (P.S. By the way, I agree with you militia guys interpretation of
>> the second amendment. Not that I like it, however.)
>
> Tom, you just made another philosophical miscalculation. Very few
>beleivers
>in the second amendment are "militia types". Most are very ordinary
>citizens.
>But they are NOT subjects. Most would far rather live in a world where one
>didn't ever have to concern himself with the idea of self protection. Reality
>prevails, however.
>
>Dick
>
Hi Dick,
I was writing in terms of militias, as Fred presented them. I
don't
think that ordinary people who want to protect themselves should have to
rely on the second amendment. If enough of their fellow citizens think it's a
good idea to allow guns in their particular society then they should be allowed
to
put the matter to a vote. Evidently, some localities have done just that.
73,
Tom Donaly

5156. Re: QSL.NET?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 08:05:27 UTC
From: W6DKN <w6dkn-nospam-@qsl.net>
Message-ID: <oaVM9.26090$K5.6994@fe01>
Source record: 128695

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E03D692.9040705@ieee.org...
> Anyone know what has happened to http://www.qsl.net?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>

Good question. The email reflector is still working and you can ping the IP address, but no web pages...?

<<< Dan >>>

5157. HyGain 5el 15 mtr antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 12:54:59 UTC
From: dxer2 <nospam@joefuzz.com>
Message-ID: <881154A43B5714F8.7CAB2764EB08BF8C.DE6D67F69E6CF7E7@lp.airnews.net>
Source record: 128696

Any one have experience with this beam and what the currently going rate for a used one would be??

Thanks,

Lee - K1NT

5158. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 13:07:42 UTC
From: VE9SRB <srbest@att.net>
Message-ID: <ylZM9.72925$hK4.5959347@bgtnsc05-news.ops.worldnet.att.net>
Source record: 128697

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E03D347.7070000@ieee.org...
> VE9SRB wrote:
> > Energy is fixed?
>
> The average energy flowing past a point is fixed at a certain number
> of joules per second as in 100 joules/sec from the transmitter. By
> fixed, I mean that the same number of joules passes the measurement
> point in the same amount of time.
>

For the single wave, I agree. For the single wave, acting independently, the J/s are established by the boundary conditions at the source.

The question we are considering is what can happen when two waves combine.

The waves are essentially a V and I established by the Z of the medium. How many J/s can a constant V supply? Its entirely a function of Z and never violates the law of conservation of energy. If Z is fixed, we can increase J/s by increasing V. However, the increase in J/s is a function of the square of V - the increase in J/s is not a one-to-one relationship with the increase in V.

The wave interaction is analogous to two series V across a fixed R. The J/s total is greater than the sum of the individual J/s (considered acting alone on R)

> >>So Steve, using your EM space wave example above, please explain how you
> >>can achieve constructive interference without a corresponding
destructive
> >>interference occurring somewhere else. How do you manage to create
energy
> >>just when and where you need it?
>
> > Energy has not been "created" as you keep insisting in your
interpretation
> > the problems discussed. It is the rate at which energy is extracted
from
> > the resulting wave that increases.
>
> Where does the average increased energy come from, Steve? The rate of
average
> energy flow in the two waves is fixed. Where does the average increase
(constructive
> interference) in energy come from if not from a decrease (destructive
interference)

> in average energy elsewhere? You cannot get 50 watts of constructive
interference
> when superposing two waves unless there is 50 watts of destructive
interference
> between two other waves.
>
> Your watts per square meter are *average* values. If you increase the
> the average watts per square meter somewhere, you are violating the
> conservation of energy principle unless you decrease the average watts
> per square meter somewhere else. That's why we get bright and dark
interference
> rings. I've never seen just bright rings, have you? Yet you are arguing
that you
> can indeed come up with nothing except bright rings. In systems of the
type we
> have been discussing, there is no additional source power available.
Constructive
> interference must be equaled by destructive interference.
> --

We disagree on the interpretation of what is physically happening when two waves combine and I guess its best to leave it at that. I can demonstrate the results of the orthogonal EM wave interaction in a lab - so there's no interpretation problem from my perspective. I'm trying to think of a similar experiment with light - I'll let you know if I can come up with something.

I will leave you with one point and several questions:

Presume the two orthogonal waves that intersect are of equal amplitude and 180 degrees out of phase. My interpretation is that the waves cancel (at the point of intersection) and that the net energy extracted from the resulting wave as a function of time is 0 (at the point of intersection). The waves are still there (they do continue on there way after they intersect) but no net energy as a function of time is being extracted from the waves (at the point of intersection). Your interpretation of the problem requires the "canceled energy" to go somewhere. Where does it go and how can I measure where it goes? Also, if the energy in the individual waves goes somewhere else, how does the energy also continue on past the point of intersection?

Happy Holidays

Steve VE9SRB

5159. Re: Practical experience on using burried radials, insulated ornot ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 13:37:11 UTC
From: Harris <n2ah@spam.sprynet.com>
Message-ID: <b8_M9.122272$a8.62709@news4.srv.hcvlny.cv.net>
Source record: 128698

"Richard Harrison" wrote:

> Don`t worry about buried bare copper. Radio station I worked in back in
> 1949 already had a dozen or so years on its bare radials. Station still
> operates using the same radials and with undiminished field strengths as
> measured at designated points distant from the station. This is not
> unusual. 10,000 AM radio stations can`t be wrong. Many have 75 years on
> their bare radials which are unaffeced in their practical efficiencies
> in all that time. Sure you can find some exception in all those
> examples, but they are few, not the rule.

All of the replies in this thread have focused on the longevity of buried bare copper wire. I think the larger question is whether or not bare wire give better performance than insulated wire. I would not think so. The ground plane is provided by the wires, not the surrounding earth.

It may be that in commercial installations with many ground radials, the decision was based on the low cost and mechanical strength of copperweld.

Art Harris

5160. Yagi out of antenna bussiness?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 14:53:32 UTC
From: k3bu@aol.com
Message-ID: <20021221095332.07164.00000402@mb-mu.aol.com>
Source record: 128699

End of Yagi?

While searching the internet I found this:

http://www.yaginet.co.jp/english/english.html

Better switch to Quads before is too late :-)

Yuri

5161. Re: Practical experience on using burried radials, insulated ornot ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 14:54:16 UTC
From: richardharrison@webtv.net
Message-ID: <26000-3E048098-67@storefull-2314.public.lawson.webtv.net>
Source record: 128702

Art Harris wrote:
"I think the larger question is whether or not bare wire gives better performance than insulated wire."

The broadcaster`s decision to use bare wire isn`t primarily based on the cost of insulated wire. One listener is very valuable to a broadcaster. If more costly ground systems would bring more listeners within range in significant numbers, you would see the money spent on the better ground system in most cases.

The value of ground contact with the ground radial system depends on frequency. At 1 MHz, bare wire at the earth`s surface needs contact with the soil to rob the soil of displacement current between the point of soil displacement current contact and the antenna drivepoint at the base of the tower. The soil contact point for displacement current must be near a radial for high efficiency.

The nearer the tower, the greater the displacement current, and fortunately the radial coverage is denser too by design nearer the tower. Displacement current needs to find a radial nearby to limit current travel distance in the soil.

Terman says:
"At broadcast and lower frequencies the ratio of capacitive reactance of the earth to the earth resitivity---is considerably greater than unity, so to a first approximation the earth can be regarded as purely resistive.----Conversel;y, at frequencies of the order of 10 MHz and greater, the impedance represented by ground (but not sea water) is primarily capacitive---."

At high frequencies, the earth`s resistance is bypassed by its capacitance.

Best regards, Richard Harrison, KB5WZI

5162. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 15:00:40 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E048218.2020703@ieee.org>
Source record: 128700

VE9SRB wrote:
> The question we are considering is what can happen when two waves combine.
> The waves are essentially a V and I established by the Z of the medium. How
> many J/s can a constant V supply? Its entirely a function of Z and never
> violates the law of conservation of energy. If Z is fixed, we can increase
> J/s by increasing V. However, the increase in J/s is a function of the
> square of V - the increase in J/s is not a one-to-one relationship with the
> increase in V.

This is all true. The question is where do the additional joules/sec come from that support the squaring of the sum of the voltages? They come from constructive interference as I assume you know and will agree to. What you are missing is that if there is constructive interference, there must be an associated equal magnitude destructive interference. At a match point in a transmission line, the destructive interference on one side of the match point has to equal the constructive interference on the other side. In a light interference pattern, if there are bright rings, there must also be dark rings. The conservation of energy principle will not allow anything else. If we could see the EM waves in the transmission line, you are saying that you can cause a bright spot without causing a dark spot somewhere else. That's impossible, Steve.

> The wave interaction is analogous to two series V across a fixed R. The J/s
> total is greater than the sum of the individual J/s (considered acting alone
> on R)

OK Steve, we set up an experiment which causes interference (superposition) between two light waves originating 20 light years away. The source has no way of knowing what we are doing and has no way of adjusting its E and H fields to compensate for our experiment. The interference is completely localized. Tell us again how that is analogous to two series V across a fixed R and we can get more joules/sec out of the superposition of those two waves than exists independently in those two waves.

You have made this same mistake for more than a year now. In a wave, the ratio of V/I (or E/H) is fixed. The maximum joules/sec is fixed at V*I. You simply cannot get more joules/sec out of superposition of two waves than exists independently in the two waves without supplying additional energy from somewhere. That somewhere, in this case, is constructive/destructive interference. Your statement that you can have constructive interference without an associated equal magnitude of destructive interference is simply false. You cannot have all bright rings in your light interference pattern even if you say you can. Some of the rings have to be dark.

> We disagree on the interpretation of what is physically happening when two
> waves combine and I guess its best to leave it at that.

Your way requires a violation of the conservation of energy principle. My
way doesn't. There is no contest. Delude yourself to your heart's content.

> I can demonstrate
> the results of the orthogonal EM wave interaction in a lab - so there's no
> interpretation problem from my perspective.

You can demonstrate how to obtain an average power out of the superposition
of two waves that is greater than the sum of the power components of the
original two waves????? Steve, think about what you are saying. You are
saying that you can create energy. Do you really consider yourself to be
an omnipotent being?

> Presume the two orthogonal waves that intersect are of equal amplitude and
> 180 degrees out of phase.

When you say "orthogonal waves", does that mean the waves are orthogonal
to each other or that the E and H fields are orthogonal?

> My interpretation is that the waves cancel (at
> the point of intersection) and that the net energy extracted from the
> resulting wave as a function of time is 0 (at the point of intersection).

The waves indeed do cancel, Steve. But it is impossible for the energy in
the waves to go to zero. When waves cancel, the energy goes to zero IN THE
DIRECTION THAT THE WAVES WERE TRAVELING. That same energy simply reverses
direction and goes the other way, i.e. it is reflected. READ MY LIPS!
ENERGY CANNOT BE CANCELED!!! If energy appears to be canceled in a transmission
line, it has simply reversed direction, i.e. been reflected. There is no
black hole inside a transmission line.

> The waves are still there (they do continue on there way after they
> intersect) but no net energy as a function of time is being extracted from
> the waves (at the point of intersection). Your interpretation of the
> problem requires the "canceled energy" to go somewhere. Where does it go
> and how can I measure where it goes?

I have explained that to you a couple of dozen times over the past year and
a half but you simply don't listen. The canceled energy is exactly the energy
in your term 2 Sqrt(P1) Sqrt(P2). That energy does NOT originate in P1 and P2
at all. 2 Sqrt(P1) Sqrt(P2) is obviously constructive interference energy. I
think you will agree with that statement. Constructive interference energy is
NOT free. It must be accompanied by destructive interference. The destructive
interference is from your wave cancellation process. If you can measure your
term, 2 Sqrt(P1) Sqrt(P2), you will be measuring the energy in the canceled
waves. It *is* the constructive interference.

Your 2 Sqrt(P1) Sqrt(P2) constructive interference energy is re-reflected
energy from the wave cancellation (destructive interference) process on the
other side of the match point. Did you really expect to hide that fact
forever?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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5163. Re: QSL.NET?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 15:09:17 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E04841D.4000601@ieee.org>
Source record: 128701

W6DKN wrote:
> "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
>>Anyone know what has happened to http://www.qsl.net?

> Good question. The email reflector is still working and you can ping the IP
> address, but no web pages...?

Is there any way to contact the QSL.NET folks? I tried emails to
support@qsl.net and hostmaster@qsl.net but they both bounced. I
just sent those guys my $15 yearly dues. :-(
--
cheers, CAM http://www.qsl.net/w5dxp

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5164. Re: Yagi out of antenna bussiness?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 15:41:49 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <YY%M9.8753$B_6.1728438@news20.bellglobal.com>
Source record: 128703

"Yuri Blanarovich"
> End of Yagi?
> While searching the internet I found this:
> http://www.yaginet.co.jp/english/english.html
> Better switch to Quads before is too late :-)

http://www.quad-hifi.co.uk/
:-)

5165. Re: QSL.NET?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 15:47:23 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <au22ecsif1@slb9.atl.mindspring.net>
Source record: 128704

Cecil:

QSL.net could be just another one of those "dot-com" businesses gone bust.
Too bad, but then... I was wondering when that would happen. If you ever
looked at all those useless web sites on their servers taking up disk space
and
bandwidth for no good return.

The whole "dot-com" economic mess reminds of the comedian who told the
story about the used car salesman who's "come on" line was, "You ask how
I can keep selling all these cars below cost? Well, I'll tell you my
friends. It's
volume, volume, volume!"

Heh, heh...

Same with all those communications companies selling huge excess
bandwidth overbuilt with Venture Capitalist's mone, to each other
and then booking the "future minutes" as revenue! Wow, what a way
to run a railroad.

BTW... $15 is not a lot of money to run a web site for a year!

Businesses with red bottom lines all go under eventually.

I wondered what "the ultimate Plan" for QSL.net was anyway, they didn't seem
to have any Vulture Capitalist money to spirit away into Swiss bank accounts
and Boca Raton mansions. Like the Worldcom, Global Crossing, et all...
What is/was their plan anyway?

--
Peter K1PO
Indialantic By-the-Sea, FL

, you just can't stay in business giving stuff away for free.
"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E04841D.4000601@ieee.org...
> W6DKN wrote:
> > "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
> >>Anyone know what has happened to http://www.qsl.net?
>
> > Good question. The email reflector is still working and you can ping the
IP
> > address, but no web pages...?
>
> Is there any way to contact the QSL.NET folks? I tried emails to
> support@qsl.net and hostmaster@qsl.net but they both bounced. I

> just sent those guys my $15 yearly dues. :-(
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
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> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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5166. Palomar Loop Ant. ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 16:10:15 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <v094ja71q3m0f0@corp.supernews.com>
Source record: 128705

I just got a Palomar Loop Amplifier and Palomar Loop Antenna for 160/80 meters. I'd like to wind antennas for BCB, VLF, and maybe other bands. I wonder if anyone has wound any loopsticks for this box with any success. Looks like there's a 2N2222, and 2 MPF 102 in the amp. Any help with a schematic or antenna info appreciated.
tnx
hank wd5jfr

5167. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 16:22:08 UTC
From: richardharrison@webtv.net
Message-ID: <18092-3E049530-207@storefull-2313.public.lawson.webtv.net>
Source record: 128707

Steve, VE9SRB wrote:
"Presume the two orthogonal waves that intersect are of equal amplitude and 180 degrees out of phase. My interpretation is that the waves cancel---."

If the lead / lag of the waves are the same, their volts and amps, or E and H fields, cancel at the point of intersection. But, I don`t see any direct relevance with forward and reflected waves on a transmission line.

Whatever net volts appear at the input to a transmission line, the result is an in-phase forward current on the line.

The forward wave may be bounced by an impedance bump to some extent. The reflection from the impedance bump has an inversion in the phase of either its volts or amps, depending on the direction, load too low or load too high, but only the volts or amps are inverted, not both. So, the reflected wave presents volts which are 180 degrees out of phase with its amps. This will propagate back toward the sender with the reflected current locked in this 180-degree phase relationship with the reflected volts on the transmission line.

SWR diagrams show a displacement of 90 degrees between volts and amps, but this is only due to interaction between waves traveling in opposite directions.

So, any place on a transmission line, there are only in-phase and out-of-phase voltages and currents to work with when considering how you add the powers in the individual waves. There are no orthogonal waves intersecting on a transmission line of significant length.

Best regards, Richard Harrison, KB5WZI

5168. Re: QSL.NET?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 17:13:01 UTC
From: Larry Phipps <larry@telepostinc.com>
Message-ID: <xi1N9.9545$4j5.5314166@newssvr28.news.prodigy.com>
Source record: 128706

I suspect qsl.net was more of a guy providing a useful service that needed more donations to sustain it than he was getting, rather than a dot-com business.
--
73,
Larry N8LP
www.telepostinc.com/n8lp.html

"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message news:au22ecsif1@slb9.atl.mindspring.net...
> Cecil:
>
> QSL.net could be just another one of those "dot-com" businesses gone bust.
> Too bad, but then... I was wondering when that would happen. If you ever
> looked at all those useless web sites on their servers taking up disk space
> and
> bandwidth for no good return.
>
> The whole "dot-com" economic mess reminds of the comedian who told the
> story about the used car salesman who's "come on" line was, "You ask how
> I can keep selling all these cars below cost? Well, I'll tell you my
> friends. It's
> volume, volume, volume!"
>
> Heh, heh...
>
> Same with all those communications companies selling huge excess
> bandwidth overbuilt with Venture Capitalist's mone, to each other
> and then booking the "future minutes" as revenue! Wow, what a way
> to run a railroad.
>
> BTW... $15 is not a lot of money to run a web site for a year!
>
> Businesses with red bottom lines all go under eventually.
>
> I wondered what "the ultimate Plan" for QSL.net was anyway, they didn't seem
> to have any Vulture Capitalist money to spirit away into Swiss bank accounts
> and Boca Raton mansions. Like the Worldcom, Global Crossing, et all...
> What is/was their plan anyway?
>
> --

> Peter K1PO
> Indialantic By-the-Sea, FL
>
> , you just can't stay in business giving stuff away for free.
> "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
> news:3E04841D.4000601@ieee.org...
> > W6DKN wrote:
> > > "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
> > >>Anyone know what has happened to http://www.qsl.net?
> > >
> > > Good question. The email reflector is still working and you can ping
the
> IP
> > > address, but no web pages...?
> > >
> > Is there any way to contact the QSL.NET folks? I tried emails to
> > support@qsl.net and hostmaster@qsl.net but they both bounced. I
> > just sent those guys my $15 yearly dues. :-(
> > --
> > cheers, CAM http://www.qsl.net/w5dxp
> >
> >
> >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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>
>

5169. Re: QSL.NET?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 18:14:52 UTC
From: Richard <richard.uk@talk21.com>
Message-ID: <au2b2rael1@venus.btinternet.com>
Source record: 128708

Seems like its all working now

At 18:14 UTC on the 21/12/2002

--

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
news:3E03D692.9040705@ieee.org...
> Anyone know what has happened to http://www.qsl.net?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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5170. Re: QSL.NET?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 18:15:40 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <2sb90vgs6e3du2g435bpnfci7ilobvok05@4ax.com>
Source record: 128709

On Sat, 21 Dec 2002 17:13:01 GMT, "Larry Phipps"
<larry@telepostinc.com> wrote:

>I suspect qsl.net was more of a guy providing a useful service that needed
>more donations to sustain it than he was getting, rather than a dot-com
>business.

Hi All,

QSL.NET is funded by K3TKJ and the generous contributions of users.

Looks fine to me. Servers do fail on occasion, or even serviced. For
a one man operation this means downtime - sometime.

73's
Richard Clark, KB7QHC

5171. Re: Yagi out of antenna bussiness?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 18:21:21 UTC
From: k3bu@aol.com
Message-ID: <20021221132121.21652.00000288@mb-fi.aol.com>
Source record: 128710

>
>"Yuri Blanarovich"
>> End of Yagi?
>> While searching the internet I found this:
>> http://www.yaginet.co.jp/english/english.html
>> Better switch to Quads before is too late :-)
>
>http://www.quad-hifi.co.uk/
>:-)
>
>
>

Eggsealant!
We are OK, ham radio will floorish forever in slightly deferent farms :-))

Merry Christmas to all antenna (and old cars, steak, guns and cigar) radio afficionados!

73 Yuri da BUm

5172. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 18:23:21 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E04B199.7090202@ieee.org>
Source record: 128711

VE9SRB wrote:
> The wave interaction is analogous to two series V across a fixed R.

Earlier you wrote:

> The total forward power increases as a direct result of the vector
> superposition of forward voltage and current. This DOES NOT require a
> corresponding destructive interference process (reduction of power
> elsewhere) to balance the law of conservation of power (The power
> dissipation in the source increases at the same time the forward power
> increases - it does not need to correspondingly decrease).

Let's do a mental experiment to see if you are correct. The source
is a star 20 light years away. We have engineered two coherent light
waves traveling side-by-side using the light from that star. Now we
divert those two light waves such that they interfere with each other.
You are saying that the source star, 20 light years away, recognizes
the problem and increases its energy output to compensate for the
constructive interference we see between those two waves. Steve, even
if you are right about that somewhat unusual source star increasing its
energy output, it will take 20 years for the star to know it should
increase its energy output and another 20 years for the increased energy
to have any effect on our experiment. During that 40 years of response
time from your magic star source, where does the energy in the constructive
interference come from?

Is this starting to soak in for anyone? It apparently has not started
to soak in for Dr. Best.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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5173. Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 19:15:03 UTC
From: k3bu@aol.com
Message-ID: <20021221141503.21652.00000292@mb-fi.aol.com>
Source record: 128712

Speaking of guns on the Fractal thread, I came accross interesting reading on FreeRepublic.com:

http://www.freerepublic.com/focus/news/810472/posts?page=1

Makes you think.

Yuri, da BUm BUm

5174. Re: Palomar Loop Ant. ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 20:13:13 UTC
From: Jack Smith <jsmith@mnsinc.com>
Message-ID: <eji90vktb8hq8hjh11dv0218nn4d93cvfa@4ax.com>
Source record: 128713

On Sat, 21 Dec 2002 10:10:15 -0600, "Henry Kolesnik"
<wd5jfr@oklahoma.net> wrote:

>I just got a Palomar Loop Amplifier and Palomar Loop Antenna for 160/80
>meters. I'd like to wind antennas for BCB, VLF, and maybe other bands. I
>wonder if anyone has wound any loopsticks for this box with any success.
>Looks like there's a 2N2222, and 2 MPF 102 in the amp. Any help with a
>schematic or antenna info appreciated.
>tnx
>hank wd5jfr
>

Hank:

I developed a similar design that was published in 73 Magazine in
three parts in the July, August and September 2002 issues.

The articles cover loop design down to 21 KHz, in a combination of
air-core and ferrite core antennas.

If you don't have access to 73 Magazine, drop me an e-mail.

Jack K8ZOA

5175. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 21:14:53 UTC
From: jder8745@aol.com
Message-ID: <20021221161453.24690.00000081@mb-fn.aol.com>
Source record: 128714

Howdy

Much harm was done whe someone decided to break a complex number up into its "REAL" and "IMAGINARY" components.

There is nothing imaginary about 10 + j5.

Some say real and quadrature, but I don;t like that either.

Let's discontinue using the hilarious terms "real" and "imaginary" and call them "vanilla" and "chocolate" respectively.

Then any two positive chocolate numbers multiplied together results in a negative vanilla number. Neat, eh?

73 de Jack, K9CUN

5176. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 21:24:10 UTC
From: jder8745@aol.com
Message-ID: <20021221162410.24676.00000152@mb-fn.aol.com>
Source record: 128715

Howdy

Much harm was done whe someone decided to break a complex number up into its "REAL" and "IMAGINARY" components.

There is nothing imaginary about 10 + j5.

Some say real and quadrature, but I don;t like that either.

Let's discontune using "real" and "imaginary" and call them "vanilla" and "chocolate" respectively.

Then any two positive chocolate numbers multiplied together results in a negative vanilla number. Neat, eh?

5177. For Sale: Palomar Engineers M-827 HF SWR & Power Meter.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 22:20:48 UTC
From: Burt <burt@rocketmail.com>
Message-ID: <4P5N9.418222$WL3.120497@rwcrnsc54>
Source record: 128716

For Sale: Palomar Engineers M-827 HF SWR & Power Meter.
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1946854293&ssPageName=ADME:B:LC:US:1

5178. For Sale: Johnson Low Pass filter

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-21 22:22:32 UTC
From: Burt <burt@rocketmail.com>
Message-ID: <IQ5N9.418235$WL3.120338@rwcrnsc54>
Source record: 128717

For Sale: Johnson Low Pass filter
http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=1946855540&ssPageName=ADM
E:B:LC:US:1

5179. Discone antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 00:18:19 UTC
From: Michalkun <no.spam@nospam.com>
Message-ID: <Xns92EBBB2FBE9Cmichalkunyahoocom@128.233.3.7>
Source record: 128718

Could anyone suggest a good online store with good discone antennas for sale? I'm looking for a scanner antenna and I don't need one for trasmitting, just receiving.

5180. Re: Discone antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 01:14:57 UTC
From: "Marc Ziegler, W6ZZZ" <UseMyLastName@accesscom.com>
Message-ID: <v0a4gqf5rve3a@corp.supernews.com>
Source record: 128570

"Michalkun" <no.spam@nospam.com> wrote
> Could anyone suggest a good online store with good discone antennas for
> sale? I'm looking for a scanner antenna and I don't need one for
> trasmitting, just receiving.

Check for reviews at:
http://www.strongsignals.net/index.cgi

and look at Scantenna
http://www.grove-ent.com/ANT7.html

5181. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 01:16:08 UTC
From: tdonaly@aol.com
Message-ID: <20021221201608.23352.00000155@mb-ff.aol.com>
Source record: 128571

Yuri wrote,
>
>Speaking of guns on the Fractal thread, I came accross interesting reading on
>FreeRepublic.com:
>
>http://www.freerepublic.com/focus/news/810472/posts?page=1
>
>Makes you think.
>
>Yuri, da BUm BUm
>
>

Yeah, it makes me think the guy who wrote it was a fear-monger. Stay tuned to the upcoming Supreme Court decision upholding the second amendment, and the outrage it will engender among the advocates of gun control.

Tom Donaly, KA6RUH

5182. MFJ Apt. 2meter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 01:28:24 UTC
From: Barry Keippel <bkeippel@excel.net>
Message-ID: <v0a524f453n2c6@corp.supernews.com>
Source record: 128572

Does anyone know anything about MFJ's apartment antenna? It says it attaches to window sills and covers 10m to 40m plus 2 and 6 meters by changing coils. What it doesn't tell you is what kind of gain this thing has and what kind of pattern it has. Does anyone have this antenna or know how good it works? KA9MAT Barry

5183. Re: Discone antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 02:10:53 UTC
From: "Dee D. Flint" <deehays@qix.net>
Message-ID: <Na9N9.9583$4j5.5379374@newssvr28.news.prodigy.com>
Source record: 128569

"Michalkun" <no.spam@nospam.com> wrote in message
news:Xns92EBBB2FBE9Cmichalkunyahoocom@128.233.3.7...
> Could anyone suggest a good online store with good discone antennas for
> sale? I'm looking for a scanner antenna and I don't need one for
> trasmitting, just receiving

Why not just build one per the directions in the ARRL antenna book?

OR just go down to Radio Shack and buy their discone.

Dee Flint, N8UZE

5184. Re: MFJ Apt. 2meter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 02:39:46 UTC
From: VE3TMT <ve3tmt@cogeco.ca>
Message-ID: <wC9N9.38113$L47.4957052@read2.cgocable.net>
Source record: 128573

"Barry Keippel" <bkeippel@excel.net> wrote in message
news:v0a524f453n2c6@corp.supernews.com...
> Does anyone know anything about MFJ's apartment antenna? It says it
attaches
> to window sills and covers 10m to 40m plus 2 and 6 meters by changing
coils.
> What it doesn't tell you is what kind of gain this thing has and what kind
> of pattern it has. Does anyone have this antenna or know how good it
works?
> KA9MAT Barry
>
>
If you are looking for a 2m antenna only save some money and frustration and
build yourself a j-pole or 1/4 wave vertical. They can be made for next to
nothing and will work as good or better than the MFJ gear. And no ground
needed either.

5185. Re: MFJ Apt. 2meter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 03:24:31 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3E05306F.7CEE5B18@cwis.net>
Source record: 128574

Barry,
Off hand I'd say the thing had no gain and
the radiation pattern depends a bunch on how
and where you have it mounted. For 2 meters
you should think of it as a step up from a
rubber-duck, and not quite equal to a 'real'
antenna of almost any kind.
'Doc

5186. Re: Practical experience on using burried radials, insulated ornot ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 03:38:31 UTC
From: John Passaneau <w3jxp@adelphia.net>
Message-ID: <XsaN9.35604$VA5.4873550@news1.news.adelphia.net>
Source record: 128575

Hi All:

Just a comment, I don't think that they use copper weld. I don't think the steel core would last too long buried in the ground. From a performance point of view, insulator or not insulated doesn't make any difference.
I have been looking at a 80/40m vertical at my QTH, and in the interest of getting the most bang for the sweat, I've been modeling the gain of a vertical verses the number and length of the ground radials. I find it interesting that for 32 radials the length that gives the maximum gain is 40 feet, but for 120 radials the max gain occurs with a length of 65 feet on 80m. As a note the angle of max radiation is the same for either number of radials.
I believe a way to explain this is there is an optimal "density" of radials and for each number of radials there is a length that gives that density. Of course I could be seeing some short coming of my modeling software too.

--
John Passaneau W3JXP
State College, Pa
w3jxp@adelphia.net

"Harris" <n2ah@spam.sprynet.com> wrote in message
news:b8_M9.122272$a8.62709@news4.srv.hcvlny.cv.net...
>
> "Richard Harrison" wrote:
>
> > Don`t worry about buried bare copper. Radio station I worked in back in
> > 1949 already had a dozen or so years on its bare radials. Station still
> > operates using the same radials and with undiminished field strengths as
> > measured at designated points distant from the station. This is not
> > unusual. 10,000 AM radio stations can`t be wrong. Many have 75 years on
> > their bare radials which are unaffeced in their practical efficiencies
> > in all that time. Sure you can find some exception in all those
> > examples, but they are few, not the rule.
>
> All of the replies in this thread have focused on the longevity of buried
> bare copper wire. I think the larger question is whether or not bare wire
> give better performance than insulated wire. I would not think so. The
> ground plane is provided by the wires, not the surrounding earth.
>
> It may be that in commercial installations with many ground radials, the
> decision was based on the low cost and mechanical strength of copperweld.
>
> Art Harris
>

>

5187. Re: MFJ Apt. 2meter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 03:52:54 UTC
From: Barry Keippel <bkeippel@excel.net>
Message-ID: <v0adgv6bf51m52@corp.supernews.com>
Source record: 128576

Ok doc, was thinking the same thing about the pattern. Would work great if the cows in the field facing the house had 2 meter. Leaning towards the j-pole twin lead in the pvc pipe trick. Think there will be any problems hanging from under the roof soffit?
"'Doc" <w5lz@cwis.net> wrote in message news:3E05306F.7CEE5B18@cwis.net...
> Barry,
> Off hand I'd say the thing had no gain and
> the radiation pattern depends a bunch on how
> and where you have it mounted. For 2 meters
> you should think of it as a step up from a
> rubber-duck, and not quite equal to a 'real'
> antenna of almost any kind.
> 'Doc

5188. Re: UHF Repeater

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 04:01:51 UTC
From: "William A. Galletti" <wagalletti@n7ym.net>
Message-ID: <POaN9.35614$VA5.4878258@news1.news.adelphia.net>
Source record: 128577

SOLD SOLD SOLD

Thanks for watching

"William A. Galletti" <wagalletti@n7ym.net> wrote in message
news:%PqM9.33868$VA5.4184404@news1.news.adelphia.net...
> I have decided to post this here before I post it on EBay. If you have any
> questions please email me at: wagalletti@n7ym.net
>
> If the offer is right I'll let it go otherwise I will post it on EBay
>
> http://www.n7ym.net/ebay/vertex/
>
>

5189. Re: DF Loop

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 09:29:46 UTC
From: PieroIK2VTJ <pierocarusoNONVOGLIOSPAM@ardf.it>
Message-ID: <au40l8$43sjg$1@ID-83989.news.dfncis.de>
Source record: 128578

"Arrow146" <arrow146@aol.com> ha scritto nel messaggio
news:20021220192237.01444.00000167@mb-fq.aol.com...

> If it was a perfect round, it would not work as well.

Really?

> Thank you for your comment.

Thank you for your answer.
--
73 de IK2VTJ, Piero.

http://www.ardf.it
http://www.qsl.net/ik2vtj

Togli/Remove
NONVOGLIOSPAM
dall'indirizzo/from address

5190. Beams for 10-12-15m only ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 09:58:26 UTC
From: Torbjørn Morka <tmorka@online.no>
Message-ID: <3E058CC2.8020106@online.no>
Source record: 128579

Does that exist ?

(remember seeing 10-15-20 only)....

Torbjorn.

5191. Re: Practical experience on using burried radials, insulated ornot ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 12:14:22 UTC
From: richardharrison@webtv.net
Message-ID: <29126-3E05AC9E-381@storefull-2316.public.lawson.webtv.net>
Source record: 128580

John, W3JXP wrote:
"I don`t think the (Copperweld) steel core would last too long buried in the ground."

Makes no difference. The steel coulld completely disappear (unlikely). The r-f skin depth in copper (a few thousandths of an inch) is less than the copper thickness and copper lasts. In the soil, the steel core is less needed for strength.

Best regards, Richard Harrison, KB5WZI

5192. Re: will this work??? cl.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 12:58:42 UTC
From: richardharrison@webtv.net
Message-ID: <6458-3E05B702-296@storefull-2318.public.lawson.webtv.net>
Source record: 128581

Clinton Magers wrote:
"That (Hindenburg) was the one where the aluminized paint on the fabric caught fire."

German investigation just after the N.J. disaster determined the dope was highly flammable and the most probable cause of the fire. This was not disclosed until an American investigation identified the same culprit, using samples of surviving Hindenburg fabric after WW-2. The hidden German investigation file then emerged.

If the crew had only dropped a grounding wire for connection before completely descending, the disaster might have been avoided.

Best regards, Richard Harrison, KB5WZI

5193. Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 13:38:29 UTC
From: rfry@adams.net
Message-ID: <a1430ee.0212220538.51ac1815@posting.google.com>
Source record: 128582

"Richard Clark" <kb7qhc@attbi.com> wrote

> Kudos to that anonymous e-mailer. etc

Not anonymous, I just started a new NG topic named "Reflected Pwr at Tx" so the subject wouldn't be buried and nearly invisible in this wandering thread. I emailed Richard Harrison to be sure he noted it.

Here is a paste of my original post, and my latest under that subject line:

ORIGINAL

If (as stated below), no reflected current or voltage is seen by a transmitter, please tell us the reason why transmitter output stages can arc and smoke when reflected power is too high? That won't happen if the only dissipation ever seen by the tx output stage is due to its DC-RF conversion efficiency.

This is far from an academic concern.

Richard Fry

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:8129-3DFDF5E4-476@storefull-2312.public.lawson.webtv.net...
> CAM wrote:
> "Does the reflected current flow through the transmitter?"
>
> The out-of-phase reflected voltage and current lead me to believe it
> doesn`t happen. I have been comfortable with assertions that reflected
> power is re-reflected at the transmitter, made long before I ever heard
> of a Bird wattmeter.
>
> Bird says:
> Transmitter power = Forward power - Reflected power.
>
> If reflected power bounces on return to the transmitter, reflected
> current doesn`t flow through the transmitter.
>
> If reflected power flows back into the transmitter, the current is still
> out-of-phase with the reflected voltage. How can that produce much
> dissipation? It takes a new reflection to correct the phase of the
> reflected power. If the reverse current reduces the output of the
> transmitter, the transmitter just has to crank out more to restore the
> desired output.
>

> The only interest of this discussion must be academic, as we know the
> Bird formula works.

5194. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 14:39:25 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <au4iqs$i0h$1@helle.btinternet.com>
Source record: 128583

> If no reflected current or voltage is seen by a
> transmitter, please tell us the reason why transmitter output stages can
arc
> and smoke when reflected power is too high? That won't happen if the only
> dissipation ever seen by the tx output stage is due to its DC-RF
conversion
> efficiency.
>
> This is far from an academic concern.

Indeed it is! It is the most comical contribution made todate. ;o)

Reg

5195. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 14:47:24 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E05D07C.7070701@ieee.org>
Source record: 128584

VE9SRB wrote:
> I can demonstrate the results of the orthogonal EM wave interaction
> in a lab - so there's no interpretation problem from my perspective.

I guarantee that you cannot demonstrate what you think you are
demonstrating. With a fixed output power from the source, you
cannot demonstrate constructive interference without an equal
magnitude destructive interference.

> I'm trying to think of a similar experiment with light - I'll let
> you know if I can come up with something.

OK, here it is. According to your theory, non-glare glass doesn't
cause destructive interference of light and when one brings a piece
of non-glare glass into the room, the light bulb in the room increases
its power output. You said exactly that in the following:

> The total forward power increases as a direct result of the vector
> superposition of forward voltage and current. This DOES NOT require a
> corresponding destructive interference process (reduction of power
> elsewhere) to balance the law of conservation of power (The power
> dissipation in the source increases at the same time the forward power
> increases - it does not need to correspondingly decrease).

So show us that magic light bulb that increases its output power
every time it somehow detects a piece of non-glare glass in the room.
--
cheers, CAM http://www.qsl.net/w5dxp

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5196. Re: QSL.NET?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 14:50:05 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <au4jer$m2m$1@slb6.atl.mindspring.net>
Source record: 128585

Larry:

[snip]
"Larry Phipps" <larry@telepostinc.com> wrote in message
news:xi1N9.9545$4j5.5314166@newssvr28.news.prodigy.com...
> I suspect qsl.net was more of a guy providing a useful service that needed
> more donations to sustain it than he was getting, rather than a dot-com
> business.
> --
> 73,
> Larry N8LP
[snip]

I was aware of those sentiments from the statements posted on the Web Site
and I am indeed sorry and do apologize if my remarks seemed to indicate
that I felt the QSL.Net Web Site is/was some kind of scam.

Cleary it was/is not.

That being said, running a Web site is not inexpensive in terms of time,
effort and financial considerations. All such efforts whether inspired by
egalitarian principles or not must evenutally pay heed to sound business
principles. i.e. the captital and operational costs have to be covered
somehow or the service will eventually degrade.

I for one hope they do well.

However my observations of the large number of relatively useless Web sites
which have been set up, and the poor real time performance of the servers,
at the QSK.Net URL lead me to believe that they might not be in the best of
shape.

--
Peter K1PO
Indialantic By-the-Sea, FL

5197. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 14:51:02 UTC
From: rfry@adams.net
Message-ID: <a1430ee.0212220651.5ea0dba1@posting.google.com>
Source record: 128586

RE: Below

"Some people" = me, no doubt.

Probably everyone (including me) agrees with your last sentence below.
However this does not necessarily mean that the power it displays is highly
accurate, and/or independent of its operating conditions.

I am not attributing any characteristic to this meter not based on its true,
but sometimes unrecognized performance in typical applications -- and
writing about one used when greater accuracy is required.

Richard Fry

"Richard Harrison" <richardharrison@webtv.net> wrote
> Some people seem to delight in proclaiming "faults" of the Bird
> wattmeter when it is hailed as the standard among field instruments. The
> Bird shows reflected power and satisfies most of its users.

5198. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 15:04:25 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E05D479.1040105@ieee.org>
Source record: 128587

Reg Edwards wrote:

> Richard Fry wrote:
>>If no reflected current or voltage is seen by a
>>transmitter, please tell us the reason why transmitter output stages can arc
>>and smoke when reflected power is too high? That won't happen if the only
>>dissipation ever seen by the tx output stage is due to its DC-RF conversion
>>efficiency. This is far from an academic concern.
> ----------
> Indeed it is! It is the most comical contribution made todate. ;o)

I think the question that Richard is asking is: If all the reflected
power is re-reflected at the transmitter whether there is an impedance
match or not, then why do the transmitter designers include protection
circuitry to protect the finals from over-voltage and over-current.

If a final designed for 100V max into a 50 ohm load is forced to deal
with 200V caused by reflections, it is likely to arc (punch through).
If a final designed for 2A max into a 50 ohm load is forced to deal
with 4A caused by reflections, it is likely to overheat. Please don't
tell me the designers are protecting the transmitter from virtual
impedances, i.e. shadow boxing.

A virtual impedance has absolutely no effect unless it is physically
supported by a real impedance discontinuity. Please describe in detail
the impedance discontinuity in a transmitter. (I don't know the answer
but I do know that virtual impedances are effects rather than causes.)
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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5199. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 15:08:05 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <53ydnd4xTO7ISJijXTWc3A@crocker.com>
Source record: 128588

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E05D07C.7070701@ieee.org...
> VE9SRB wrote:
> > The total forward power increases as a direct result of the vector
> > superposition of forward voltage and current. This DOES NOT require a
> > corresponding destructive interference process (reduction of power
> > elsewhere) to balance the law of conservation of power (The power
> > dissipation in the source increases at the same time the forward power
> > increases - it does not need to correspondingly decrease).
>

what is this 'law of conservation of power'? how is that one worded and
where is it defined???

5200. Re: QSL.NET?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 15:12:44 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E05D66C.7030600@ieee.org>
Source record: 128590

Peter O. Brackett wrote:
> However my observations of the large number of relatively useless Web sites
> which have been set up, and the poor real time performance of the servers,
> at the QSK.Net URL lead me to believe that they might not be in the best of
> shape.

Guess I need to mirror my qsl.net website on my ISP which charges me a whopping
$8 a month for a webpage and www/email/newsgroup dialup access. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5201. Re: Beams for 10-12-15m only ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 15:15:29 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <IpecnSp3oZ7lS5ijXTWc3Q@comcast.com>
Source record: 128589

Tennadyne makes a log periodic that goes from 18 to 33 MHz.

Tam/WB2TT
"

5202. Re: Beams for 10-12-15m only ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 15:17:35 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <jlkN9.36304$6k.1803514@news1.west.cox.net>
Source record: 128592

Lots of tribanders on the market see
Hygain --- http://www.hy-gain.com/hy-gain/products.php?catid=5
Cushcraft --- http://www.cushcraft.com/
Mosley --- http://www.mosley-electronics.com/amateur.htm

To name a few

Others at URL:
http://ac6v.com/antdealer.htm

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"Torbj&#65533;rn Morka" <tmorka@online.no> wrote in message
news:3E058CC2.8020106@online.no...
> Does that exist ?
>
> (remember seeing 10-15-20 only)....
>
> Torbjorn.
>

5203. Inexpensive 1/4 wave magmounts?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 15:18:23 UTC
From: emergencyradioserv@yahoo.com
Message-ID: <46060eb3.0212220718.5bcd6282@posting.google.com>
Source record: 128591

I'm looking for some inexpensive 1/4 wave magmount antennas for a VHF freq (151 MHz). I'll even consider a cheap mount-only that I can add a whip to.

Anyone know of any surplus outlets with anything? Anyone online selling something like this? Anyone ever cut down one of the dual-band antennas that I occasionally see for $15?

I'm looking for about 10-15 of these and am trying to keep cost down as its coming out of my own pocket. These antennas will be seeing fairly light duty as part of a crime watch group's short range comms.

TIA,

Bob

5204. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 15:19:16 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E05D7F4.7020005@ieee.org>
Source record: 128593

Richard Fry wrote:
> Probably everyone (including me) agrees with your last sentence below.
> However this does not necessarily mean that the power (the Bird) displays
> is highly accurate, and/or independent of its operating conditions.

Bird claims 5% of full scale if and only if the wattmeter is operated
in a 50 ohm environment (for a 50 ohm slug). 5% of full-scale is 20%
of quarter-scale and it is still operating within specifications. Most
of us don't care much about accuracy - just that the needle doesn't move
when measuring reflected power.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5205. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 15:29:50 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E05DA6E.20607@ieee.org>
Source record: 128594

David Robbins wrote:
> "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
> what is this 'law of conservation of power'? how is that one worded and
> where is it defined???

Got your copy of Walter C. Johnson's "Transmission Lines and Networks"?
"Conservation of Power" is in the index. Have you ever seen the joules
passing a point in one second not be conserved?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5206. Re: Discone antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 15:34:06 UTC
From: cprstn54zz@att.net
Message-ID: <3e05dad5.238935000@news-server.optonline.net>
Source record: 128596

On Sun, 22 Dec 2002 02:10:53 GMT, "Dee D. Flint" <deehays@qix.net>
wrote:
>> Could anyone suggest a good online store with good discone antennas for
>> sale?

Antennawarehouse.com sells an OK discone for $29. I am using one right
now and it works just fine.

The only reason to pay $30 more for the Radio Shack is if you want to
TX on 6M and don't want multiple antennas.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

5207. Simple horizontal antenna advice III

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 15:34:21 UTC
From: Steve <junk@no.spam>
Message-ID: <pXkN9.2075$H5.10609@newsfep4-gui.server.ntli.net>
Source record: 128595

Hi,

I thought I'd post a followup to my previous posts.

To summise, I constructed a 120 feet doublet fed by 600 ohm open feeder. Because of the shacks location the feeder dropped from the feedpoint and then rose to enter the shack. The feeder ran parallel to one leg of the doublet and at the shack entry point is only a couple of feet from the doublet. With this config I was having issues getting the antenna to tune up.

I've since extended the length of the openfeeder and trailed it away from the doublet, it now entering the shack from an opposite direction. This addressed a lot of the problems and it tuned up alot better but I still wasn't entirely happy with it.

I was using the voltage balun integral in my MFJ-949E tuner. Reading various references a current based choke balun seemed a better choice. A simple 1:1 choke was contructed out of 25 feet of RG58 coiled onto a 4 inch drain pipe. The result is the antenna tuning is now alot less peaky and performance, certainly on receive, seems unchanged from the internal balun.

Thanks for the groups advice over the past few weeks. I look forward to experimenting some more over the coming months.

73 Steve M3ZQO.

5208. Reflected Pwr at Tx Followup

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 15:41:52 UTC
From: rfry@adams.net
Message-ID: <a1430ee.0212220741.3c536fe3@posting.google.com>
Source record: 128597

(I had to start a new thread because of the delay I get using
Google to read and post right now - my ISP's NG server is kaput.)

Here is a repeatable example from my working life supporting the
presence of discrete, reflected (reverse) power in the output stage
of a transmitter, as opposed to those reflected/reverse waves merely
changing the loading conditions for forward power from that tx,
as suggested by Richard Harrison.

FM broadcast stations sometimes co-locate their transmit antennas
on the same tower. In some cases these antennas are physically
close enough that significant RF power couples from each antenna
to the other. Let's consider a case where the two carriers F1 & F2
are 0.8MHz apart, and further that each station produces a signal
in the transmission line of the other station that is 20dB below
that station's unmodulated carrier level (distinctly possible).

Absent any kind of spectral filtering, F2's signal will travel down
the line and appear in the output network of F1's transmitter. Even
with the F1 tx turned off, F1's reflected power meter will respond
to the interfering signal from F2 as if it was a reflection of power
generated within the F1 transmitter. In this case it would read a
power level equal to that from a load Z with a return loss of 20dB,
which corresponds to a 1.22VSWR.

If F1 transmitter is now turned on, F1's spectral components will mix
with the interfering signal from F2 to create RF intermodulation
products, the most dominant of which is produced by the 2nd harmonic
of F1 mixing with thefundamental of the F2 interfering tx 2F1-F2).

A similar scenario will exist at the F2 transmitter with F1 as the
interfering source.

If reverse power did not appear as a discrete value in the output
of the PA stage along with the forward power the PA is generating,
then RF intermods would not be produced in this situation.

But they are, ergo...

Richard Fry

5209. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 15:50:56 UTC
From: k1bqt@aol.com
Message-ID: <20021222105056.18776.00000179@mb-cq.aol.com>
Source record: 128598

>Yeah, it makes me think the guy who wrote it was a fear-monger.<

No hyphen in fear monger, Tom, it's a noun. The hyphen may be used when the term serves as a modifier--as in "fear-mongering red-neck moon-shine sucking sister-chasing rodent brain". Come to think of it, isn't a "fear monger" the conservative counterpart of a "northern anti-gun panty-baby bed-wetting liberal control-freak wuss?"

Back in college debate, I recall that name-calling resided at the bottom of the rhetorical food chain--somewhere below personal attack. It represented the very weakest position available from which to post an argument--and it always reeked with the stench of defeat. Too bad it's been raised to an art form in our post-modernist era.

--Rick K1BQT

5210. Re: Practical experience on using burried radials, insulated ornot ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 16:37:17 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0212220837.46e58b41@posting.google.com>
Source record: 128599

"Harris" <n2ah@spam.sprynet.com> wrote in message
news:<b8_M9.122272$a8.62709@news4.srv.hcvlny.cv.net>...
> "Richard Harrison" wrote:
>
> All of the replies in this thread have focused on the longevity of buried
> bare copper wire. I think the larger question is whether or not bare wire
> give better performance than insulated wire. I would not think so. The
> ground plane is provided by the wires, not the surrounding earth.
>
Yes, that's what I would like to know. In the past I used electical
house wiring for this, which by default is insulated. Sometimes I
removed the insulation mostly I did not. I thought maybe someone out
there had some more practical expriences on the differences between
both possibilities.

Arie.

5211. In-line Wattmeter Accuracy

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 17:00:42 UTC
From: rfry@adams.net
Message-ID: <a1430ee.0212220900.5d9f3a54@posting.google.com>
Source record: 128600

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
> Most of us don't care much about accuracy - just that the
>(inline wattmeter) needle doesn't move when measuring
>reflected power.

However a "Bird-type" wattmeter reading zero reflected power should be viewed with due care, because *true* reflected power will be far from zero
then.

The meter just reads zero because the magnitude and phase of the forward
power in the sample section exactly nulls the true reverse power there coming back from the load termination. This is the result of the finite
directivity of the element, which does not completely isolate forward from reverse power.

And a "Bird-type" meter looking for reverse power into a perfect, resistive
match will not read zero watts, even though reverse power really is zero.
The reason is the same as above.

Note I am not bashing this approach, just suggesting it be used with an
understanding of how it really performs.

Richard Fry

5212. Re: Inexpensive 1/4 wave magmounts?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 17:02:31 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <c+0FPqwQXooRbd8fA=qPkT5P=0y7@4ax.com>
Source record: 128601

emergencyradioserv@yahoo.com (Bob) wrote:

>I'm looking for some inexpensive 1/4 wave magmount antennas for a VHF
>freq (151 MHz). I'll even consider a cheap mount-only that I can add a
>whip to.
>
>Anyone know of any surplus outlets with anything? Anyone online
>selling something like this? Anyone ever cut down one of the dual-band
>antennas that I occasionally see for $15?
>
>I'm looking for about 10-15 of these and am trying to keep cost down
>as its coming out of my own pocket. These antennas will be seeing
>fairly light duty as part of a crime watch group's short range comms.
>
>TIA,
>
>Bob

It would seem that practically any 2-meter 1/4 wave whip would work. Shorten it another inch or so for 151 mhz. Or, just buy a bunch of mag mounts, and insert your own approx. 18- or 19-inch whip wires.

You might look at hamstick.com They have 1/4 wave whips at $7.95, mag mounts at $12.95...

Bob
k5qwg

5213. Re: MFJ Apt. 2meter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 17:34:08 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E05F752.7050406@attbi.com>
Source record: 128602

It is a base loaded antenna and is slightly shorter than a mobile
Hamstick. So, It's performance at frequencies lower than 10 meters would
be similar to a small base loaded mobile whip.

Very poor on 40, poor on 30, fairly poor on 20 and 17, fair on 10, good
on 6. However, even on 6 meters it is not as good as a 1/4 wave ground
plane.

It works, but you could do better!

Deacon Dave, W1MCE
=========

Barry Keippel wrote:
> Does anyone know anything about MFJ's apartment antenna? It says it attaches
> to window sills and covers 10m to 40m plus 2 and 6 meters by changing coils.
> What it doesn't tell you is what kind of gain this thing has and what kind
> of pattern it has. Does anyone have this antenna or know how good it works?
> KA9MAT Barry
>
>

5214. Re: Beams for 10-12-15m only ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 17:38:34 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E05F856.2040106@attbi.com>
Source record: 128603

I use the Tennadyne T-8 for 20, 17, 15, 12 and 10 meters. Approximately
6 dBd gain AND VSWR <1.7 to 1 across the FULL spectrum from 13.5 to 33
MHz. NO TRAPS. FULL POWER. Highly efficient.

Note: The governments of the world use Log Periodics for much of their
military and state department HF Communications.

DD, W1MCE
========

Tarmo Tammaru wrote:
> Tennadyne makes a log periodic that goes from 18 to 33 MHz.
>
> Tam/WB2TT
> "
>
>

5215. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 17:52:16 UTC
From: richardharrison@webtv.net
Message-ID: <18092-3E05FBD0-352@storefull-2313.public.lawson.webtv.net>
Source record: 128607

CAM wrote:
"Bird claims 5% of full scale if and only if the wattmeter is operated
in a 50 ohm enviroment (for a 50 ohm slug).

Yes, and more than the 50-ohm slug calibration is involved. The 4-inch
length of coax line in the Model 43 wattmeter has a Zo of 50 ohms, too.

Bird doesn`t claim laboratory accuracy. They do make lab instruments
too, but the field instruments do what they are claimed to do very well.

One technician can adjust a radio for a particular power output. Then,
another technician using a different but similar Bird same model
wattmeter can check the radio. Chances are excellent that the readings
made by the two technicians will agree. I`ve seen this happen countless
times. In my organization, this repeatability was more important than
accuracy. The radios traveled all over the world and were serviced and
reported from far-flung locations. The repeatability was there.

Best regards, Richard Harrison, KB5WZI

5216. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 17:57:23 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E05FCC5.8060107@attbi.com>
Source record: 128604

I'll stand to be updated since it's been 40+ years since I took my transmission line courses.

I understand the following:

The transmitter output circuits, inductors and capacitors, provide a match between the transistors and a 50 ohm source impedance to the transmission line. The transmission line has a 50 ohm characteristic impedance [assume no losses]. The load [antenna] impedance is assumed to be 150 ohms [VSWR 3:1 Reflected power 25% or 25 watts for a 100 watt transmitter].

The reflected power, 25 watts, comes back down the transmission line which has a 50 ohm characteristic impedance. The transmission line is terminated by the output circuits of the transmitter circuits which are design for 50 ohms. The output circuits of the transmitter are linear components [inductors and capacitors] that exhibit duality and provide a match between the transistors and the transmission line. This is a 1:1 VSWR! There is NO reflection of the reverse traveling wave. The wave [power] reflected from the antenna sees a 50 ohm load at the output of the transmitter. The power is coupled back into the RF Final stages.

So, if I have a transmitter that provides a 50 ohm load to the reflected wave and a 50 ohm source impedance to the forward wave, and I have a 3:1 VSWR at the antenna, is not the 25% reflected power absorbed by the transmitter??? Hmmm ... ???

Richard Fry wrote:
> "Richard Clark" <kb7qhc@attbi.com> wrote
>
>
>>Kudos to that anonymous e-mailer. etc
>
> ____________________________________
>
> Not anonymous, I just started a new NG topic named "Reflected Pwr at Tx" so
> the subject wouldn't be buried and nearly invisible in this wandering
> thread. I emailed Richard Harrison to be sure he noted it.
>
> Here is a paste of my original post, and my latest under that subject line:
>
> ORIGINAL
>
> If (as stated below), no reflected current or voltage is seen by a
> transmitter, please tell us the reason why transmitter output stages can arc
> and smoke when reflected power is too high? That won't happen if the only

> dissipation ever seen by the tx output stage is due to its DC-RF conversion
> efficiency.
>
> This is far from an academic concern.
>
> Richard Fry
> _________________
>
> "Richard Harrison" <richardharrison@webtv.net> wrote in message
> news:8129-3DFDF5E4-476@storefull-2312.public.lawson.webtv.net...
>
>>CAM wrote:
>>"Does the reflected current flow through the transmitter?"
>>
>>The out-of-phase reflected voltage and current lead me to believe it
>>doesn`t happen. I have been comfortable with assertions that reflected
>>power is re-reflected at the transmitter, made long before I ever heard
>>of a Bird wattmeter.
>>
>>Bird says:
>>Transmitter power = Forward power - Reflected power.
>>
>>If reflected power bounces on return to the transmitter, reflected
>>current doesn`t flow through the transmitter.
>>
>>If reflected power flows back into the transmitter, the current is still
>>out-of-phase with the reflected voltage. How can that produce much
>>dissipation? It takes a new reflection to correct the phase of the
>>reflected power. If the reverse current reduces the output of the
>>transmitter, the transmitter just has to crank out more to restore the
>>desired output.
>>
>>The only interest of this discussion must be academic, as we know the
>>Bird formula works.
>

5217. Re: Reflected Pwr at Tx Followup

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:03:53 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E05FE4B.80104@attbi.com>
Source record: 128605

Richard, you are correct in identifying that intermod products occur.
This gives evidence of the reflected power being coupled into the
non-linear stages.

Just one point of clarification though for completeness. The mixing
process, 2F1 +/- F2, also has a conversion efficiency where in the
mixing products are less than [lower valued] the individual components.

DD, W1MCE

Richard Fry wrote:
> (I had to start a new thread because of the delay I get using
> Google to read and post right now - my ISP's NG server is kaput.)
> ___
>
> Here is a repeatable example from my working life supporting the
> presence of discrete, reflected (reverse) power in the output stage
> of a transmitter, as opposed to those reflected/reverse waves merely
> changing the loading conditions for forward power from that tx,
> as suggested by Richard Harrison.
>
> FM broadcast stations sometimes co-locate their transmit antennas
> on the same tower. In some cases these antennas are physically
> close enough that significant RF power couples from each antenna
> to the other. Let's consider a case where the two carriers F1 & F2
> are 0.8MHz apart, and further that each station produces a signal
> in the transmission line of the other station that is 20dB below
> that station's unmodulated carrier level (distinctly possible).
>
> Absent any kind of spectral filtering, F2's signal will travel down
> the line and appear in the output network of F1's transmitter. Even
> with the F1 tx turned off, F1's reflected power meter will respond
> to the interfering signal from F2 as if it was a reflection of power
> generated within the F1 transmitter. In this case it would read a
> power level equal to that from a load Z with a return loss of 20dB,
> which corresponds to a 1.22VSWR.
>
> If F1 transmitter is now turned on, F1's spectral components will mix
> with the interfering signal from F2 to create RF intermodulation
> products, the most dominant of which is produced by the 2nd harmonic
> of F1 mixing with thefundamental of the F2 interfering tx 2F1-F2).
>
> A similar scenario will exist at the F2 transmitter with F1 as the
> interfering source.
>

> If reverse power did not appear as a discrete value in the output
> of the PA stage along with the forward power the PA is generating,
> then RF intermods would not be produced in this situation.
>
> But they are, ergo...
>
> Richard Fry

5218. Re: Practical experience on using burried radials, insulated ornot ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:09:47 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <au4v5a$5sq$1@helle.btinternet.com>
Source record: 128606

SHALLOW-BURIED RADIAL SYSTEMS.

The RF effect of covering wires with an insulating material is to REDUCE the input (loss) resistance of the array. The greater the diameter of the insulation over the wire the lower the loss.

For practical purposes all loss occurs in the soil and for short distances current flows radially outwards from the wire surface.

By far the greatest amount of loss occurs in the layers of soil in contact with and immediately surrounding a wire. That's where the transverse resistance of a thin layer of soil is greatest and where the greatest current concentration occurs.

Now suppose a wire is replaced by a polyethylene-insulated inner conductor of a coaxial transmission line. Insofar as the soil is concerned the radial wire now has a much greater diameter. Suppose it's 1" in diameter. The cross-sectional area of the soil involved is much greater and the current density is much smaller. So the effective loss resistance must be smaller.

But depending on the permittivity of the insulating material there is now a capacitance between wire and soil. It is exactly the same capacitance as existed in the original coaxial line before the outer conductor was removed. So the input impedance of the radial array consists of a LOWER LOSS resistance in series with a capacitative reactance.

No-one is aware of the change in input reactance because it is tuned out simultaneously with antenna reactance with which it is in series.

The whole thing is calculable from its dimensions. Does the ARRL Bible or Terman have anything to say on the subject? ;o)

[PS. It follows that to reduce loss in a radial system to an absolute minimum the best course of action is to insulate the wires with a very large thickness of air. This is accomplished by taking them right out of the ground and raising them to a height of about 1/2-wavelength. Has this brilliant flash of inspiration yet been patented?]

Reg, G4FGQ

5219. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:34:10 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <95ub0v8tctfshi05n1381q165c0vurcp1g@4ax.com>
Source record: 128608

On Sun, 22 Dec 2002 09:29:50 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>"Conservation of Power" is in the index.

Hi Cecil,

Now there's a recommendation. Is it too baroque to quote?

If you want to talk Physics, go to a Physicist, not a derivate.

From Feynman's Lectures, "conservation of energy":
"There was an interesting early relationship between
physics and biology in which biology helped physics in
the discovery of the conservation of energy, which
was first demonstrated buy Mayer in connection
with the amount of heat taken in and given out
by a living creature."

Thus introduces the notion of an event (taking one amount), over time
(in and out) and accounting for any gain or loss found in the amount
at the end of the event. But Feynman goes on:
"There is a fact, or if you wish, a law, governing natural
phenomena that are known to date, There is no known
exception to this law - it is exact so far as we know.
The law is called the conservation of energy. ...
It is not a description of a mechanism, or anything concrete;
it is just a strange fact that we can calculate some number
and when we finish watching nature go through her tricks
and calculate the number again, it is the same."

Only Feynman could make this snobbery of conservation into a cosmic
joke. Conservation... explains nothing. As for the mental abacus
I've seen employing Conservation, too often inappropriately,
Interference is not one shot frozen in time at some precise
intersection of two one dimensional lines. Not even in the pristine
world of math/science/religion/economics/politics/ebonics.

Cecil, the point of the matter is that when you've halted the
discussion to line up your argument, halfway through the event, I am
satisfied to find Conservation AFTER, as Feynman says, "watching
nature go through her tricks."

73's
Richard Clark, KB7QHC

5220. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:38:19 UTC
From: tdonaly@aol.com
Message-ID: <20021222133819.22957.00000170@mb-mf.aol.com>
Source record: 128609

Cecil wrote,
> Have you ever seen the joules
>passing a point in one second not be conserved?
>--
>cheers, CAM http://www.qsl.net/w5dxp

:-)

Tom Donaly, KA6RUH

5221. Re: Reflected Pwr at Tx Followup

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:40:55 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <OGnN9.10$jP1.1353@newsfeed.slurp.net>
Source record: 128610

RE: Below

Agreed. The conventional term used in the broadcast industry is "turnaround loss," which is defined as the difference between the amplitude of the primary interfering signal and the intermod product(s) observed as a result of its presence.

Note that the IM product 2F1 + F2 lies well outside the RF bandwidth of the F1 tx and antenna, typically, and so the turnaround loss for that product usually is quite high, and its interference potential quite low (near zero).

Richard Fry

"Dave Shrader" <david.shrader@attbi.com> wrote in message news:3E05FE4B.80104@attbi.com...
> Richard, you are correct in identifying that intermod products occur.
> This gives evidence of the reflected power being coupled into the
> non-linear stages.
>
> Just one point of clarification though for completeness. The mixing
> process, 2F1 +/- F2, also has a conversion efficiency where in the
> mixing products are less than [lower valued] the individual components.

5222. Re: Reflected Pwr at Tx Followup

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:40:55 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <BLnN9.15$jP1.1468@newsfeed.slurp.net>
Source record: 128613

RE: Below

Agreed. The conventional term used in the broadcast industry is "turnaround loss," which is defined as the difference between the amplitude of the primary interfering signal and the intermod product(s) observed as a result of its presence.

Note that the IM product 2F1 + F2 lies well outside the RF bandwidth of the F1 tx and antenna, typically, and so the turnaround loss for that product usually is quite high, and its interference potential quite low (near zero).

Richard Fry

"Dave Shrader" <david.shrader@attbi.com> wrote in message news:3E05FE4B.80104@attbi.com...
> Richard, you are correct in identifying that intermod products occur.
> This gives evidence of the reflected power being coupled into the
> non-linear stages.
>
> Just one point of clarification though for completeness. The mixing
> process, 2F1 +/- F2, also has a conversion efficiency where in the
> mixing products are less than [lower valued] the individual components.

5223. Re: Reflected Pwr at Tx Followup

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:40:55 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <kQnN9.18$jP1.1723@newsfeed.slurp.net>
Source record: 128616

RE: Below

Agreed. The conventional term used in the broadcast industry is "turnaround loss," which is defined as the difference between the amplitude of the primary interfering signal and the intermod product(s) observed as a result of its presence.

Note that the IM product 2F1 + F2 lies well outside the RF bandwidth of the F1 tx and antenna, typically, and so the turnaround loss for that product usually is quite high, and its interference potential quite low (near zero).

Richard Fry

"Dave Shrader" <david.shrader@attbi.com> wrote in message news:3E05FE4B.80104@attbi.com...
> Richard, you are correct in identifying that intermod products occur.
> This gives evidence of the reflected power being coupled into the
> non-linear stages.
>
> Just one point of clarification though for completeness. The mixing
> process, 2F1 +/- F2, also has a conversion efficiency where in the
> mixing products are less than [lower valued] the individual components.

5224. Re: Reflected Pwr at Tx Followup

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:40:55 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <t2oN9.21$jP1.2125@newsfeed.slurp.net>
Source record: 128617

RE: Below

Agreed. The conventional term used in the broadcast industry is "turnaround loss," which is defined as the difference between the amplitude of the primary interfering signal and the intermod product(s) observed as a result of its presence.

Note that the IM product 2F1 + F2 lies well outside the RF bandwidth of the F1 tx and antenna, typically, and so the turnaround loss for that product usually is quite high, and its interference potential quite low (near zero).

Richard Fry

"Dave Shrader" <david.shrader@attbi.com> wrote in message news:3E05FE4B.80104@attbi.com...
> Richard, you are correct in identifying that intermod products occur.
> This gives evidence of the reflected power being coupled into the
> non-linear stages.
>
> Just one point of clarification though for completeness. The mixing
> process, 2F1 +/- F2, also has a conversion efficiency where in the
> mixing products are less than [lower valued] the individual components.

5225. Re: Reflected Pwr at Tx Followup

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:40:55 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <NkoN9.28$jP1.2350@newsfeed.slurp.net>
Source record: 128622

RE: Below

Agreed. The conventional term used in the broadcast industry is "turnaround loss," which is defined as the difference between the amplitude of the primary interfering signal and the intermod product(s) observed as a result of its presence.

Note that the IM product 2F1 + F2 lies well outside the RF bandwidth of the F1 tx and antenna, typically, and so the turnaround loss for that product usually is quite high, and its interference potential quite low (near zero).

Richard Fry

"Dave Shrader" <david.shrader@attbi.com> wrote in message news:3E05FE4B.80104@attbi.com...
> Richard, you are correct in identifying that intermod products occur.
> This gives evidence of the reflected power being coupled into the
> non-linear stages.
>
> Just one point of clarification though for completeness. The mixing
> process, 2F1 +/- F2, also has a conversion efficiency where in the
> mixing products are less than [lower valued] the individual components.

5226. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:43:07 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <co2dnYtu3qhVmpujXTWc2Q@crocker.com>
Source record: 128611

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E05DA6E.20607@ieee.org...
> David Robbins wrote:
> > "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
> > what is this 'law of conservation of power'? how is that one worded and
> > where is it defined???
>
> Got your copy of Walter C. Johnson's "Transmission Lines and Networks"?
> "Conservation of Power" is in the index. Have you ever seen the joules
> passing a point in one second not be conserved?
> --

if you define a 'point' as your closed system it has no dimensions,
therefore no way to store energy, so yes, joules in equals joules out over
any time period you want to define. however on a finite size object you can
put more joules in during a given time period than you take out. just
consider a simple capacitor or inductor, both of them can store energy for a
time so you could pump in joules and not get any out. we have a device at
work that you pump in a kw for say 5 minutes and get nothing out, then you
get a few megawatts for a microsecond or so... that would hardly pass muster
with your definition of the 'law'.

In checking my standard references here, Jackson's Classical
Electrodynamics, Ramo/Whinnery/VanDuzer's Fields and waves in communication
electronics, and Desoer/Kuh's Basic Circuit Theory the only reference to
conservation of power was in Basic Circuit Theory where it is defined as the
'conservation of complex power' which relates specifically to a linear
time-invarient network in sinusoidal steady state. in such a case you can
show that the complex power is conserved. unfortunately it is based on
Tellegen's theorem that is valid only for lumped networks. this would lead
me to believe that unless you used the lumped ladder type model for a feed
line that you can not directly apply a 'conservation of power' law to any
piece of the network, you have to include the whole thing from the
transmitter through the antenna. THEN, it makes sense, in steady state the
power from a transmitter is either radiated or heats the coax, and the sum
of the radiated power and the power that is transformed to heat equals the
power coming out of the transmitter.... no big deal in that.

5227. Re: Reflected Pwr at Tx Followup

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:43:50 UTC
From: rfry@adams.net
Message-ID: <a1430ee.0212221043.6f29c51b@posting.google.com>
Source record: 128612

RE: Below

Agreed. The conventional term used in the broadcast industry is "turnaround loss," which is defined as the difference between the amplitude of the primary interfering signal and the intermod product(s) observed as a result of its presence.

Note that the IM product 2F1 + F2 lies well outside the RF bandwidth of the F1 tx and antenna, typically, and so the turnaround loss for that product usually is quite high, and its interference potential quite low (near zero).

Richard Fry

"Dave Shrader" <david.shrader@attbi.com> wrote in message news:3E05FE4B.80104@attbi.com...
> Just one point of clarification though for completeness. The mixing
> process, 2F1 +/- F2, also has a conversion efficiency where in the
> mixing products are less than [lower valued] the individual components.

5228. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:47:06 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <kbmdnYy9Orc2lZujXTWc2Q@crocker.com>
Source record: 128614

"Richard Clark" <kb7qhc@attbi.com> wrote in message
news:95ub0v8tctfshi05n1381q165c0vurcp1g@4ax.com...
> On Sun, 22 Dec 2002 09:29:50 -0600, OC_CAM's Razor
> <Cecil.A.Moore@ieee.org> wrote:
>
> >"Conservation of Power" is in the index.
>
> Hi Cecil,
>
> Now there's a recommendation. Is it too baroque to quote?
>
> If you want to talk Physics, go to a Physicist, not a derivate.
>
> From Feynman's Lectures, "conservation of energy":
> "There was an interesting early relationship between
> physics and biology in which biology helped physics in
> the discovery of the conservation of energy, which
> was first demonstrated buy Mayer in connection
> with the amount of heat taken in and given out
> by a living creature."
>
> Thus introduces the notion of an event (taking one amount), over time
> (in and out) and accounting for any gain or loss found in the amount
> at the end of the event. But Feynman goes on:
> "There is a fact, or if you wish, a law, governing natural
> phenomena that are known to date, There is no known
> exception to this law - it is exact so far as we know.
> The law is called the conservation of energy. ...
> It is not a description of a mechanism, or anything concrete;
> it is just a strange fact that we can calculate some number
> and when we finish watching nature go through her tricks
> and calculate the number again, it is the same."
>
> Only Feynman could make this snobbery of conservation into a cosmic
> joke. Conservation... explains nothing. As for the mental abacus
> I've seen employing Conservation, too often inappropriately,
> Interference is not one shot frozen in time at some precise
> intersection of two one dimensional lines. Not even in the pristine
> world of math/science/religion/economics/politics/ebonics.
>
> Cecil, the point of the matter is that when you've halted the
> discussion to line up your argument, halfway through the event, I am
> satisfied to find Conservation AFTER, as Feynman says, "watching
> nature go through her tricks."

>
> 73's
> Richard Clark, KB7QHC

now, there is something to sink your teeth into. BUT, you still have to be careful to define the system you are looking at when you apply the 'conservation of energy' law. i am still astounded at how many people get the answer to the following question wrong:

You put a refrigerator in a perfectly insulating room and open the door. (assume the light is burned out so that doesn't heat the room up) What happens to the temperature in the room? Does it go up, stay the same, or cool off?

5229. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:49:55 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <_q-dnRMuNeDLlJujXTWc2Q@crocker.com>
Source record: 128615

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E05D479.1040105@ieee.org...
> Reg Edwards wrote:
>
> > Richard Fry wrote:
> >>If no reflected current or voltage is seen by a
> >>transmitter, please tell us the reason why transmitter output stages can
arc
> >>and smoke when reflected power is too high? That won't happen if the
only
> >>dissipation ever seen by the tx output stage is due to its DC-RF
conversion
> >>efficiency. This is far from an academic concern.
> > ----------
> > Indeed it is! It is the most comical contribution made todate. ;o)
>
> I think the question that Richard is asking is: If all the reflected
> power is re-reflected at the transmitter whether there is an impedance
> match or not, then why do the transmitter designers include protection
> circuitry to protect the finals from over-voltage and over-current.
>
> If a final designed for 100V max into a 50 ohm load is forced to deal
> with 200V caused by reflections, it is likely to arc (punch through).
> If a final designed for 2A max into a 50 ohm load is forced to deal
> with 4A caused by reflections, it is likely to overheat. Please don't
> tell me the designers are protecting the transmitter from virtual
> impedances, i.e. shadow boxing.
>
> A virtual impedance has absolutely no effect unless it is physically
> supported by a real impedance discontinuity. Please describe in detail
> the impedance discontinuity in a transmitter. (I don't know the answer
> but I do know that virtual impedances are effects rather than causes.)
> --
>

another new term for me... what in the world is a 'virtual impedance'?? is
this an impedance modeled in a computer that doesn't really exist? how does
it relate to a real or complex impedance? is power conservered in virtual
impedances???

5230. Re: Practical experience on using burried radials, insulated ornot ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 18:56:44 UTC
From: richardharrison@webtv.net
Message-ID: <29126-3E060AEC-431@storefull-2316.public.lawson.webtv.net>
Source record: 128620

Arie wrote:
"Yes, that`s what I would like to know (that the insulated wire he used for ground radials was just fine)."

Insulated wire does not provide the lowest resistance to earth. It doesn`t provide the lowest reactance, either. An insulated wire doesn`t make the best capacitor plate because when it is fed from an end it has inductance which works against its effectiveness as a capacitor plate. Inductance can be reduced by using enough insulated radials to reduce total inductance, and to increase total capacitance.

Bare wires make better ground radials. Elevated radials, or the radiator itself, can be insulated with little effect on their performance. Enough elevated radials are needed to hide the earth from capacitive coupling with the radiator. That takes many radials near the earth, or just a few at high altitude.

Best regards, Richard Harrison, KB5WZI

5231. Re: In-line Wattmeter Accuracy

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 19:07:23 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E060D6B.40909@ieee.org>
Source record: 128618

Richard Fry wrote:
> This is the result of the finite
> directivity of the element, which does not completely isolate forward
> from reverse power.

Of course, it's not perfect but good enough for amateurs. :-)

> And a "Bird-type" meter looking for reverse power into a perfect,
> resistive match will not read zero watts, even though reverse power
> really is zero.

Are you saying that a 50 ohm load fed by a 50 ohm coax will not
indicate zero reflected power? Or are you saying there's no such
thing as a perfect 50 ohm load fed by a perfect 50 ohm coax
measured by a perfect 50 ohm wattmeter?
--
cheers, CAM http://www.qsl.net/w5dxp

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5232. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 19:10:23 UTC
From: tdonaly@aol.com
Message-ID: <20021222141023.22957.00000171@mb-mf.aol.com>
Source record: 128619

Rick wrote,
>
>No hyphen in fear monger, Tom, it's a noun. The hyphen may be used when the
>term serves as a modifier--as in "fear-mongering red-neck moon-shine sucking
>sister-chasing rodent brain". Come to think of it, isn't a "fear monger" the
>conservative counterpart of a "northern anti-gun panty-baby bed-wetting
>liberal
>control-freak wuss?"
>
>Back in college debate, I recall that name-calling resided at the bottom of
>the
>rhetorical food chain--somewhere below personal attack. It represented the
>very
>weakest position available from which to post an argument--and it always
>reeked
>with the stench of defeat. Too bad it's been raised to an art form in our
>post-modernist era.
>
>--Rick K1BQT
>
Thanks for the grammar lesson Rick. I'm beginning to get the distinct
impression you don't agree with me. The fact remains that the fellow
who wrote the little story Yuri recommended reading was shamelessly
playing on the fears of his readers that the government will some day
take away our guns and our freedoms in order to establish a dictatorship.
That, my friend, was fear-mongering, and one who practices fear-mongering
is a fear monger. (Or, in my grammar, a fear-monger.)
73,
Tom Donaly, KA6RUH
(P.S. I'm glad to know you still remember your slavishly-learned college
lessons, Rick. You should get ahead in the world with all that knowledge.)

5233. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 19:21:55 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0610D3.2040908@ieee.org>
Source record: 128621

Richard Clark wrote:
> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>"Conservation of Power" is in the index.
>
> Hi Cecil,
> Now there's a recommendation. Is it too baroque to quote?

I already quoted it, Richard. Perhaps you missed it.

> Cecil, the point of the matter is that when you've halted the
> discussion to line up your argument, halfway through the event, I am
> satisfied to find Conservation AFTER, as Feynman says, "watching
> nature go through her tricks."

What seems really strange, Richard, is that you hold me to such a high standard but refuse to hold Dr. Best to any standard at all. One wonders why. Do you agree with Dr. Best that if we cause constructive interference between two coherent waves consisting of light from a star 20 light years away, that the star immediately increases its power output to compensate for the constructive interference so destructive interference is avoided at all costs - even at the cost of violating the theory of relativity AND the conservation of energy principle.

Do you really believe that when I walk into a room with my non-glare eyeglasses on that the light source in the room senses the presence of my non-glare eyeglasses and increases its power output so that destructive interference can be avoided at all costs? That's what Dr. Best believes as can be ascertained from his assertions:

Dr. Best wrote:
> The total forward power increases as a direct result of the vector
> superposition of forward voltage and current. This DOES NOT require a
> corresponding destructive interference process (reduction of power
> elsewhere) to balance the law of conservation of power (The power
> dissipation in the source (a star 20 light years away?) increases at
> the same time the forward power
> increases - it does not need to correspondingly decrease).
--
cheers, CAM http://www.qsl.net/w5dxp

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5234. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 19:25:02 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E06118E.6010604@ieee.org>
Source record: 128623

Tdonaly wrote:
> Cecil wrote,
>>Have you ever seen the joules
>>passing a point in one second not be conserved?
>
> :-)

There you go again, Tom, making a joke out of a dead
serious rhetorical question. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5235. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 19:39:34 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0614F6.2070004@ieee.org>
Source record: 128625

David Robbins wrote:

> "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
>>Got your copy of Walter C. Johnson's "Transmission Lines and Networks"?
>>"Conservation of Power" is in the index. Have you ever seen the joules
>>passing a point in one second not be conserved?
>
> if you define a 'point' as your closed system it has no dimensions,
> therefore no way to store energy, so yes, joules in equals joules out over
> any time period you want to define. however on a finite size object you can
> put more joules in during a given time period than you take out.

Of course, but aren't those joules conserved even if they make
it to the load after the transmitter is powered down? One of my
favorite examples is a one second long transmission line. The
transmitter dumps 100 watts of power into the line. The line contains
energy equal to the first second's worth of that 100 joules/sec
until the transmitter is powered down. The transmitter is generating
power (by definition) and the transmission line is storing that
dynamic power as equivalent dynamic energy. Power and energy in a
lossless transmission line are equivalent and related only by time,
i.e. the power in a lossless transmission line is not used up.
And anyone who thinks the charge on a capacitor cannot deliver power
should grab a 100uf cap with 1000V stored in it. We can't feel vars,
can we? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5236. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 19:41:30 UTC
From: richardharrison@webtv.net
Message-ID: <29126-3E06156A-435@storefull-2316.public.lawson.webtv.net>
Source record: 128634

Richard Fry wrote:
"This is far from an academic concern."

The transmitter`s open-circuit voltage is likely more than its normal loaded voltage.

The transmitter`s short-circuited current is likely more than its normal loaded current.

A seriously mismatched transmitter may be vulnerable without recycling its power output.

Transistors being less accommodating in their earliest high power applications than vacuum tubes were and often still are protected from overload by additional circuitry.

Does anyone have evidence showing recycled load power did in his transmitter and that it was not voltage or current overload caused by a severe departure from the design load impedance?

Best regards, Richard Harrison, KB5WZI

5237. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 19:42:22 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E06159E.3040901@ieee.org>
Source record: 128626

David Robbins wrote:
> You put a refrigerator in a perfectly insulating room and open the door.
> (assume the light is burned out so that doesn't heat the room up) What
> happens to the temperature in the room? Does it go up, stay the same, or
> cool off?

Assuming the refrigerator was already cold, the temperature will first
go down. :-)

If you take a rock out of a lake and put it in a boat on the lake, does
the level of the lake rise or fall?
--
cheers, CAM http://www.qsl.net/w5dxp

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5238. 6 Meter Dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 19:44:06 UTC
From: "Ron P." <rpackerii@neo.rr.com>
Message-ID: <aCoN9.10295$%3.2333751@twister.neo.rr.com>
Source record: 128624

Is the dipole from NorthWest Antennas a good dipole? From what I saw, it had the normal balun with a 50ohm connecter, and two pieces of wire with no insulators/eyelets. Is this a good antenna for a beginner with little funds to get into the 6 meter bands? The antenna is selling for $9.99. Thanks!

Ron - kc8ulu

5239. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 19:49:36 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E061750.7070900@ieee.org>
Source record: 128627

David Robbins wrote:
> another new term for me... what in the world is a 'virtual impedance'?? is
> this an impedance modeled in a computer that doesn't really exist? how does
> it relate to a real or complex impedance? is power conservered in virtual
> impedances???

Egads, David, have you never heard of virtual images? The 50 ohms seen by
the transmitter in the following diagram is a virtual 50 ohms. The actual
50 ohms is at the other end of the ladder-line.

50 ohm XMTR--+====1/2WL 450 ohm ladder-line===50 ohm resistor.

Please don't tell me that you have been seduced by the steady-state model
and think the transmitter actually sees a 50 ohm resistor.
--
cheers, CAM http://www.qsl.net/w5dxp

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5240. Re: Reflected Pwr at Tx Followup

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 19:51:41 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0617CD.9040203@ieee.org>
Source record: 128628

Richard Fry wrote:

Richard, you are hitting your send button too many times.
Hit it once, minimize the compose window, and wait for
awhile.
--
cheers, CAM http://www.qsl.net/w5dxp

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5241. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 19:58:11 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E061953.6040509@ieee.org>
Source record: 128630

Tdonaly wrote:
> The fact remains that the fellow
> who wrote the little story Yuri recommended reading was shamelessly
> playing on the fears of his readers that the government will some day
> take away our guns and our freedoms in order to establish a dictatorship.

Hmmmmm, that's exactly what happened to the German Republic in pre-
Nazi Germany. Of course, nothing like that could ever happen to the
American Republic because human nature has evolved beyond that point
in the past 50 years, hasn't it? But I wonder, are we all that different
from our Grandfathers? Are we all that different from cave men?
--
cheers, CAM http://www.qsl.net/w5dxp

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5242. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 19:59:07 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <ysScnUaa7ugQhJujXTWc3A@crocker.com>
Source record: 128629

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E0614F6.2070004@ieee.org...
> David Robbins wrote:
>
> > "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
> >>Got your copy of Walter C. Johnson's "Transmission Lines and Networks"?
> >>"Conservation of Power" is in the index. Have you ever seen the joules
> >>passing a point in one second not be conserved?
> >
> > if you define a 'point' as your closed system it has no dimensions,
> > therefore no way to store energy, so yes, joules in equals joules out
over
> > any time period you want to define. however on a finite size object you
can
> > put more joules in during a given time period than you take out.
>
> Of course, but aren't those joules conserved even if they make
> it to the load after the transmitter is powered down? One of my
> favorite examples is a one second long transmission line. The
> transmitter dumps 100 watts of power into the line. The line contains
> energy equal to the first second's worth of that 100 joules/sec
> until the transmitter is powered down. The transmitter is generating
> power (by definition) and the transmission line is storing that
> dynamic power as equivalent dynamic energy. Power and energy in a
> lossless transmission line are equivalent and related only by time,
> i.e. the power in a lossless transmission line is not used up.
> And anyone who thinks the charge on a capacitor cannot deliver power
> should grab a 100uf cap with 1000V stored in it. We can't feel vars,
> can we? :-)
> --

no, power and energy are not the same in a lossless line. consider your 1
second long line. at the input end 1/2 second after the transmitter is
turned on you are putting in 100w, but nothing is coming out the far end...
hardly a good example of conservation of power... and yet if you properly
define the system boundaries you can calculate that energy is conserved.
conservation of power as defined in my books only works in 'sinusoidal
steady state' in a lumped network, and even then you have to use complex
powers. you can not apply those assumptions to your long transmission line
and a transient phenomenon.

5243. Inline Wattmeter Accuracy

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 20:06:45 UTC
From: rfry@adams.net
Message-ID: <a1430ee.0212221206.20b95f30@posting.google.com>
Source record: 128631

OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote
> Are you saying that a 50 ohm load fed by a 50 ohm coax will not
> indicate zero reflected power?

True reflected power is zero for those conditions, but an inline wattmeter will not read zero then. It will read whatever power its element can't reject from the forward power in the line.

With ZERO true reflected power, an inline wattmeter element with its typical directivity spec of 26dB will read about 5 watts of reflected power for every 100 watts of forward power.

> Or are you saying there's no such
> thing as a perfect 50 ohm load fed by a perfect 50 ohm coax
> measured by a perfect 50 ohm wattmeter?

Transmission lines and terminations can be constructed or matched to high return losses (70dB or more), at least over limited RF bandwidths. With careful design and custom calibration, directional couplers also can approach this performance, as well.

However most standard, commercial transmission lines and reference mismatches/loads have better off-the-shelf performance than the off-the-shelf directional couplers/wattmeters we are discussing.

An additional consideration is that the directional coupler should have at least 10dB better directivity than the return loss performance of the load it is used to measure. Therefore if the true VSWR of a termination is 1.03:1 (36dB return loss), the directional coupler needs 46dB directivity to measure it with tolerable(?) error. That is 20dB beyond the spec of the typical inline wattmeter element.

Richard Fry

5244. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 20:11:39 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <IKadnUsD0vsfgZujXTWc2Q@crocker.com>
Source record: 128632

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E061750.7070900@ieee.org...
> David Robbins wrote:
> > another new term for me... what in the world is a 'virtual impedance'??
is
> > this an impedance modeled in a computer that doesn't really exist? how
does
> > it relate to a real or complex impedance? is power conservered in
virtual
> > impedances???
>
> Egads, David, have you never heard of virtual images? The 50 ohms seen by
> the transmitter in the following diagram is a virtual 50 ohms. The actual
> 50 ohms is at the other end of the ladder-line.
>
> 50 ohm XMTR--+====1/2WL 450 ohm ladder-line===50 ohm resistor.
>
> Please don't tell me that you have been seduced by the steady-state model
> and think the transmitter actually sees a 50 ohm resistor.
> --

given that you are in steady state and the line is lossless with a 50 ohm
resistor on the far end you can not tell the difference between what you
have drawn and a 50 ohm resistor hooked to the transmitter. nothing virtual
about that.

what are you calling 'virtual'??? the input impedance of a transmission line
with some load? those are hardly 'virtual'. given the characteristics of
the line and the load impedance you can calculate a very real impedance that
the transmitter will see in the steady state case. and given a steady state
case you can replace the line and load with a single impedance connected
directly to the transmitter and you would not be able to tell the
difference. if you want to talk transients it is a very different problem.

5245. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 20:14:34 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E061D2A.1060207@ieee.org>
Source record: 128635

David Robbins wrote:
> You put a refrigerator in a perfectly insulating room and open the door.
> (assume the light is burned out so that doesn't heat the room up) What
> happens to the temperature in the room? Does it go up, stay the same, or
> cool off?

Seems to be a multiple choice question:

If the refrigerator was plugged in before and not plugged in after
being put in the room, and the room is at room temperature, the
temperature would fall.

If the refrigerator wasn't plugged in before and not plugged in
after being put in the room, it would depend on the temperature
of the refrigerator Vs the temperature of the room. It could go
up or down.

If the refrigerator wasn't plugged in before and then plugged in
after being put in the room, the temperature would rise assuming
the room was previously at room temperature.

If the refrigerator was plugged in before and after being put in
the room, the temperature would first fall then rise, assuming
the room was at room temperature and it's not a gas refrigerator.

If the room was already at the melting point of steel, the
refrigerator will probably malfunction as it has an upper
temperature spec.

If the room was at absolute zero, the refrigerator will probably
malfunction as it has a lower temperature spec.

Remember the "Fair Witness" from "Stranger in a Strange Land"? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5246. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 20:14:58 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <4tadnaORFtXMgJujXTWc2Q@crocker.com>
Source record: 128633

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E06159E.3040901@ieee.org...
> David Robbins wrote:
> > You put a refrigerator in a perfectly insulating room and open the door.
> > (assume the light is burned out so that doesn't heat the room up) What
> > happens to the temperature in the room? Does it go up, stay the same,
or
> > cool off?
>
> Assuming the refrigerator was already cold, the temperature will first
> go down. :-)

c-, incomplete answer. assuming the heatsink side of the mechanism was
still warm that counteracts the cold air inside. what happens after the
transient due to opening the door has decayed away.

5247. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 20:22:05 UTC
From: rfry@adams.net
Message-ID: <a1430ee.0212221222.35a65c9e@posting.google.com>
Source record: 128636

And the reflected phase seen at each discontinuity along the line, and
at the source also depends on the number of electrical wavelengths
between the respective reference planes.

Richard Fry

Dave Shrader <david.shrader@attbi.com> wrote>

>(clip) My copy of Terman, also 1955 (and 1948), p 93 states under
REACTIVE
> LOADS [the same paragraph you are quoting]: "... the phase angle of the
> reflection coefficient will depend upon the ratio of the load reactance
> to characteristic impedance." This is followed by your statement
> regarding the displacement [phase shift] of the minima etc.
>
> After the initial 'displacement' [phase shift] the 'normal 1/2
> wavelength characteristics repeat as you state.

5248. balcony-mag.loop-MicroVert-Dipole ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 20:22:20 UTC
From: Ersoy Yilmaz <ersoy@amatortelsiz.com>
Message-ID: <3E061EFC.6090008@amatortelsiz.com>
Source record: 128645

Hi,

some time ago, started to do solve my antenna problem,
living in a block is boring ... Can do anything on my
balcony ...

I made a long search on the net, books and magazines. Any
new article made me more confuse. To avoid more of this and
finally to be QRV or SWL, I need help from you.

a) Resuming to install a 1/4 dipole on the balcony, how away
should the dipole placed ? Since some manuals telling, that
a dipole can be installed indoors, may be the distance
between the dip. and wall is not so critical, or not?

b) Many people and web sites favoring mag.loop antennas. How
fine they are, effective ... Sure very small bandwidth.

If you should choose, which one you would prefer on your
balcony, the dipole or the mag. loop? (for 10 meters).

c) Last week found a web site about so called "microvert"
antennas. (http://home.t-online.de/home/dl7pe/mainmenu.htm).
Read also opinions, all positive, from hams, who build this one.

So, if you had to choose;-)

- a dipole at the balcony
- hide the dipole on the roof
- take the mag. dipole on the balcony
- take the mag.loop to the roof
- build your microvert and use it on the roof

what would you say?

5249. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 20:27:43 UTC
From: k1bqt@aol.com
Message-ID: <20021222152743.14004.00000160@mb-cr.aol.com>
Source record: 128637

>You should get ahead in the world with all that knowledge.<

Funny guy.

>I'm beginning to get the distinct
impression you don't agree with me.<

You'd be right, Tom, I don't.

Rick K1BQT

5250. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 20:28:28 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <j78c0vg4drvmg9ik7gujt8sq2mje9j7igi@4ax.com>
Source record: 128638

On Sun, 22 Dec 2002 13:21:55 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>One
>wonders why. Do you agree with

Cecil,

This shabby technique explains why.

73's
Richard Clark, KB7QHC

5251. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 20:34:50 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0621EA.9040008@ieee.org>
Source record: 128639

David Robbins wrote:
> "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
>>50 ohm XMTR--+====1/2WL 450 ohm ladder-line===50 ohm resistor.
>>
>>Please don't tell me that you have been seduced by the steady-state model
>>and think the transmitter actually sees a 50 ohm resistor.
>
> given that you are in steady state and the line is lossless with a 50 ohm
> resistor on the far end you can not tell the difference between what you
> have drawn and a 50 ohm resistor hooked to the transmitter. nothing virtual
> about that.

Oh no, you *have* been seduced by the steady-state model. You think the
image of yourself that you see in the mirror is really your twin brother
living in the room behind the mirror?

Assume you are a wave, David, and flow toward that junction. Do you see
50 ohms? Do you detect a temperature rise? Of course not! All you see is the
lossless interaction of individual forward and reflected waves like yourself.
There is NO power dissipation at the virtual resistor and it doesn't get hot.
That's the difference that proves the resistor is not really there and is only
virtual. You say I cannot tell the difference - I certainly can by taking the
temperature.

You can prove that there is not actually 50 ohms at that point. Put a bit
of high frequency modulation on the wave that changes from cycle to cycle
and you will not see a perfectly continuous 50 ohms. You will actually
see some small reflections incident upon the transmitter. If you really
want to see the effects, use a 1000 ft. piece of ladder-line and make the
load a 75 ohm TV receiver. You will see ghosting all over the place.
--
cheers, CAM http://www.qsl.net/w5dxp

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5252. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 20:38:12 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0622B4.9010908@ieee.org>
Source record: 128640

David Robbins wrote:
> "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
>>Assuming the refrigerator was already cold, the temperature will first
>>go down. :-)
>
> c-, incomplete answer. assuming the heatsink side of the mechanism was
> still warm that counteracts the cold air inside. what happens after the
> transient due to opening the door has decayed away.

If the refrigerator had just been shipped in from the South Pole,
the heatsink side would be cold and if you didn't plug it in,
the temperature in the room would drop. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5253. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 20:44:32 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E062430.9020101@ieee.org>
Source record: 128641

Richard Clark wrote:
> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>One wonders why. Do you agree with
>
> Cecil, This shabby technique explains why.

OK, now I get it. If someone's technique is not shabby, they
can say any false statement in the world and get away with it.
OTOH, since my technique is shabby, the truth I utter is
irrelevant. I understand perfectly.

P.S. From all accounts, Einstein was a pretty shabby person.

Have you run the experiment where the light in a room puts
out more power because there is non-glare glass present as
Dr. Best says? I can't verify his assertion. I guess my
light meter is not sensitive enough.
--
cheers, CAM http://www.qsl.net/w5dxp

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5254. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 20:45:04 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <evpN9.361$oW.127868@news20.bellglobal.com>
Source record: 128643

"OC_CAM's Razor"
> Got your copy of Walter C. Johnson's
> "Transmission Lines and Networks"?
> "Conservation of Power" is in the index.

We've had this discussion. I had thought that you were cured - in your subsequent postings you *properly* invoked the principle of 'Conservation of Energy'; now you're slipping back.

'Conservation of Power' is not a general 'principle'. That book is wrong if it says that it is a 'principle'. Dangerous misinformation - you should 'red-line' your copy at the very least.

> Have you ever seen the joules passing a
> point in one second not be conserved?

Depends on the situation Ever seen a Pulse Compression Radar ? That is a crystal clear and classic example where power gets 'stacked up' into a narrow pulse. Energy is conserved of course - power isn't. There are a million examples.

Of course I'll be happy to grant you that power is usually conserved in transmission lines provided nothing funny (like reflections) is going on. Just don't invoke the non-existent 'Law of Conservation of Power' to prove that power is conserved. That would be circular reasoning (and based on a false premise in any case).

..

Good luck with your debate. I'm still trying to pin-point where either one you has gone wrong in your logic. I suspect it is related to your differing assumptions about the reaction of the so-called "100w" transmitter (no such thing actually) and its reaction to the mismatch.

5255. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 20:49:42 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E062566.1030605@ieee.org>
Source record: 128642

Richard Harrison wrote:
> The transmitter`s open-circuit voltage is likely more than its normal
> loaded voltage.

That's because there is 100% reflection. ;-)

> The transmitter`s short-circuited current is likely more than its normal
> loaded current.

That's because there is 100% reflection. ;-)

> Does anyone have evidence showing recycled load power did in his
> transmitter and that it was not voltage or current overload caused by a
> severe departure from the design load impedance?

I can paint you a mental picture. Assume an open circuit, one second long
lossless 50 ohm transmission line. The transmitter is perfectly happy for
two seconds and then starts to suffer. Sounds like reflected power damage
to me.
--
cheers, CAM http://www.qsl.net/w5dxp

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5256. Re: Beams for 10-12-15m only ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 21:16:04 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <7cOcnTy_n5hnt5ujXTWcow@comcast.com>
Source record: 128644

The T7 is cheaper, smaller, and has more gain, because it drops 20m, which
he does not want.

Tam/WB2TT
"Dave Shrader" <david.shrader@attbi.com> wrote in message
news:3E05F856.2040106@attbi.com...
> I use the Tennadyne T-8 for 20, 17, 15, 12 and 10 meters. Approximately
> 6 dBd gain AND VSWR <1.7 to 1 across the FULL spectrum from 13.5 to 33
> MHz. NO TRAPS. FULL POWER. Highly efficient.
>
> Note: The governments of the world use Log Periodics for much of their
> military and state department HF Communications.
>
> DD, W1MCE
> ========
>
> Tarmo Tammaru wrote:
> > Tennadyne makes a log periodic that goes from 18 to 33 MHz.
> >
> > Tam/WB2TT
> > "
> >
> >
>

5257. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 21:24:41 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <FIqdnVzgjNI9sJujXTWc2Q@crocker.com>
Source record: 128646

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E0621EA.9040008@ieee.org...
> David Robbins wrote:
> > "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote:
> >>50 ohm XMTR--+====1/2WL 450 ohm ladder-line===50 ohm resistor.
> >>
> >>Please don't tell me that you have been seduced by the steady-state
model
> >>and think the transmitter actually sees a 50 ohm resistor.
> >
> > given that you are in steady state and the line is lossless with a 50
ohm
> > resistor on the far end you can not tell the difference between what you
> > have drawn and a 50 ohm resistor hooked to the transmitter. nothing
virtual
> > about that.
>
> Oh no, you *have* been seduced by the steady-state model. You think the
> image of yourself that you see in the mirror is really your twin brother
> living in the room behind the mirror?
>
> Assume you are a wave, David, and flow toward that junction. Do you see
> 50 ohms? Do you detect a temperature rise? Of course not! All you see is
the
> lossless interaction of individual forward and reflected waves like
yourself.
> There is NO power dissipation at the virtual resistor and it doesn't get
hot.
> That's the difference that proves the resistor is not really there and is
only
> virtual. You say I cannot tell the difference - I certainly can by taking
the
> temperature.
>
> You can prove that there is not actually 50 ohms at that point. Put a bit
> of high frequency modulation on the wave that changes from cycle to cycle
> and you will not see a perfectly continuous 50 ohms. You will actually
> see some small reflections incident upon the transmitter. If you really
> want to see the effects, use a 1000 ft. piece of ladder-line and make the
> load a 75 ohm TV receiver. You will see ghosting all over the place.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
ah, but i have one advantage. i know when to apply the steady state

approximations and use the conclusions they give, and you obviously don't. i specifically stated that in the steady state you could not tell the difference between 50 ohms at the end of a 1/2 wave line and 50 ohms at the transmitter terminals. you have just said that if i change the wave cycle by cycle i can see the difference. and i say, of course you can, but you just violated my statement that declared 'steady state'. the same applies to tv signals, because the modulation changes so rapidly they can never be assumed to be in steady state.

now, as far as taking the temperature... if i put the 1/2 wave of line in a box along with the 50 ohm resistor and let you measure that temperature... then take out the line and just put the resistor in the box and let you measure that temperature they would be the same and you still couldn't tell the difference, in steady state. this is where the refrigerator question comes in to play, if you are going to reduce a network down to an equivalent impedance you must be sure to include all the applicable parts of the network. in this case the resisitor that creates what you call a 'virtual' impedance is a part of the network and must be included or you will not be able to satisfy the law of conservation of energy. so my statement stands, in steady state i can give you two boxes, one with only a 50 ohm resistor, and one with 1/2 wavelength of lossless line and a 50 ohm resistor, and you could not make any measurement that would tell them apart.

as far as the mirror analogy, there are ways to do the same analysis for light waves and mirrors, but they require the same type of analysis as lower frequency waves in a coax with a mismatched load. after all they are just E-M waves and follow the same rules.

5258. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 21:44:00 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E063220.7090909@ieee.org>
Source record: 128647

J. Harvey wrote:
> Just don't invoke the non-existent 'Law of Conservation of Power' to prove
> that power is conserved.

I think you misunderstood. It is not I who invokes the "Conservation
of Power" principle. It is an accepted guru, Walter C. Johnson.
--
cheers, CAM http://www.qsl.net/w5dxp

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5259. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 21:58:31 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E063587.4010404@ieee.org>
Source record: 128648

David Robbins wrote:
> ah, but i have one advantage.

Yes, you have the advantage of the old dead horse steady-state strawman cop-out. The only thing I can detect is change and you say if I change anything it is not steady-state. Congratulations on your Catch-22, a rule that prohibits the questioning of that very rule.

> in this case the resisitor that creates what you call a 'virtual'
> impedance is a part of the network and must be included or you will not be
> able to satisfy the law of conservation of energy.

But you are not allowed to have your energy and eat it too. If it gets dissipated in the load resistor 1/2WL away, it doesn't get dissipated in the virtual 50 ohms at the transmitter, i.e. there is not 50 ohms at the transmitter. There is only a complex interaction of forward and reflected waves that nobody except me seems to understand. (That is a tongue-in-cheek statement, in case anyone objects.) The only resemblance to an actual 50 ohms is the V/I ratio which, like a lossless Z0, is dissipationless.

Please see my posting, "Riding the Waves".
--
cheers, CAM http://www.qsl.net/w5dxp

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5260. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 22:02:09 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <wDqN9.450$oW.146555@news20.bellglobal.com>
Source record: 128649

"OC_CAM's Razor"
> I think you misunderstood. It is not I who invokes
> the "Conservation of Power" principle. It is an
> accepted guru, Walter C. Johnson.

The fact that you're continuing to wave it about like some flag demonstrates that you need to review Physics 101. Seriously, and with all due respect, you should know better.

It only takes a single counter example to blow a so-called 'principle' out of the water. *Pulse Compression Radar*. Done. Men of Few Words Champion.

One last time:
1) There is no such thing as a 'Conservation of Power' principle. There is, occasionally, given some assumptions, situations where power is conserved. Doesn't make it a principle.

2) If Walter C. Johnson says there is such a principle, then he is dead wrong.

3) Please stop quoting him as some sort of God-given reference.

4) 'Appeal to Authority' arguments are lousy even if the expert isn't wrong.

5) Circular arguments are even worse.

6) Appealing to a non-existent principle is... sigh...

I'm getting bored with this. Next time someone mentions 'Conservation of Power' as being some sort of fundamental principle, I'll try to smirk more quietly.

5261. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 22:27:26 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E063C08.2010608@attbi.com>
Source record: 128650

If the refrigerator is plugged into a source of energy the temperature goes up.

The compressor is inefficient and has thermal losses. So, it takes more BTUs to operate the compressor than the resulting BTUs reduction from the compressor output. A simpler model is to run an air conditioner totally inside a closed room. It gets HOT.

If the refrigerator is thermally stabilized and not operating then the temperature remains the same.

There is NO PERPETUAL NOTION MACHINE !! Nothing runs at 100% efficiency! So, losses, generally as heat, occur in all processes.

Another way to understand the process. A 100 horsepower automobile engine can deliver about 35 horsepower to the road! Most of that missing horsepower is converted into heat in the exhaust [caution: just put your hand somewhere near your catalytic converter and you will feel quite a bit of heat!], in the engine oils, in the coolants, in the brake pads, in the tires. Note: the tires are flywheels that take an exceptional amount of power just to rotate. The crankshaft takes power to rotate, transmission fluids get VERY hot, etc.

The amount of energy, not power, in our COSMOS is fixed and constant. It was there at the instant of the BIG BANG. All we can do is change the type of energy and measure how quickly energy is consumed in any local engine [read transmitter]. My ICOM 746 requires somewhere around 250 watts input to produce 100 watts output.

David Robbins wrote:
> "Richard Clark" <kb7qhc@attbi.com> wrote in message
> news:95ub0v8tctfshi05n1381q165c0vurcp1g@4ax.com...
>
>>On Sun, 22 Dec 2002 09:29:50 -0600, OC_CAM's Razor
>><Cecil.A.Moore@ieee.org> wrote:
>>
>>
>>>"Conservation of Power" is in the index.
>>
>>Hi Cecil,
>>
>>Now there's a recommendation. Is it too baroque to quote?
>>
>>If you want to talk Physics, go to a Physicist, not a derivate.
>>
>>From Feynman's Lectures, "conservation of energy":

>>"There was an interesting early relationship between
>>physics and biology in which biology helped physics in
>>the discovery of the conservation of energy, which
>>was first demonstrated buy Mayer in connection
>>with the amount of heat taken in and given out
>>by a living creature."
>>
>>Thus introduces the notion of an event (taking one amount), over time
>>(in and out) and accounting for any gain or loss found in the amount
>>at the end of the event. But Feynman goes on:
>>"There is a fact, or if you wish, a law, governing natural
>>phenomena that are known to date, There is no known
>>exception to this law - it is exact so far as we know.
>>The law is called the conservation of energy. ...
>>It is not a description of a mechanism, or anything concrete;
>>it is just a strange fact that we can calculate some number
>>and when we finish watching nature go through her tricks
>>and calculate the number again, it is the same."
>>
>>Only Feynman could make this snobbery of conservation into a cosmic
>>joke. Conservation... explains nothing. As for the mental abacus
>>I've seen employing Conservation, too often inappropriately,
>>Interference is not one shot frozen in time at some precise
>>intersection of two one dimensional lines. Not even in the pristine
>>world of math/science/religion/economics/politics/ebonics.
>>
>>Cecil, the point of the matter is that when you've halted the
>>discussion to line up your argument, halfway through the event, I am
>>satisfied to find Conservation AFTER, as Feynman says, "watching
>>nature go through her tricks."
>>
>>73's
>>Richard Clark, KB7QHC
>
>
> now, there is something to sink your teeth into. BUT, you still have to be
> careful to define the system you are looking at when you apply the
> 'conservation of energy' law. i am still astounded at how many people get
> the answer to the following question wrong:
>
> You put a refrigerator in a perfectly insulating room and open the door.
> (assume the light is burned out so that doesn't heat the room up) What
> happens to the temperature in the room? Does it go up, stay the same, or
> cool off?
>
>
>

5262. Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 22:48:55 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E064157.8010203@ieee.org>
Source record: 128651

Einstein envisioned himself riding waves of light on his way to his theory of relativity. It's a very useful concept. When one rides the crest of a wave traveling at the speed of light, one has all the time in the world to think about it since one's wristwatch is not ticking at all. Let's ride the forward wave from the transmitter to the load in the following example and see for ourselves what happens.

100W 50 ohm XMTR--coax--+===1/2WL 450 ohm ladder-line===50 ohm resistor

We emerge from the XMTR riding the wave in a 50 ohm environment. Our wave is 70.7V at 1.414A in phase. We might be headed for a 50 ohm load. But we look ahead and see an impedance discontinuity. It is a step function from our 50 ohm environment to a 450 ohm environment. We are pretty savvy about such things and brace ourselves for a reflection of 64% of our power. We sure don't see 50 ohms. What we see is a bunch of interacting waves.

SWR = 450/50 = 9:1, Rho = (SWR-1)/(SWR+1) = 0.8, Rho^2=0.64 or 64%

As we get closer to the impedance discontinuity, we realize that we have already achieved steady-state conditions and a large destructive interference process is in progress which tells us there is an impedance match happening at the impedance discontinuity. Assuming that our wave arrives at the impedance discontinuity with the V-I phase angles at zero degrees, we know the discontinuity will generate a reflected wave of 56.57V at zero degrees and 1.13A at 180 degrees. But we do not see such a wave flowing back toward us. As we get closer we see why. There is a reflected wave from the load flowing through the impedance discontinuity and its voltage is 56.57V at 180 degrees and its current is 1.13A at zero degrees.

Of course, now we realize what is happening. We're smarter than the average bear and know that coherent waves with equal voltages and currents and opposite phases will cancel each other. That's why it's so dark on this side of the impedance discontinuity.

56.57V at 0 degrees and 1.13A at 180 degrees added to
56.57V at 180 degrees and 1.13A at 0 degrees equals
ZERO volts and amps. So what we see is the darkness of destructive interference. However, we know that the energy in each of those two waves was 64 joules/sec each so the total energy involved in the destructive interference is 128 joules/sec. Where does that energy go?

We take the temperature of the impedance discontinuity and don't detect any dissipation so we can be sure that the energy has turned around and gone the only other direction possible, i.e. back toward the load. We also note that since each of those canceled waves has the voltage and

current 180 degrees out of phase, we know the energy in those two waves
was reflected energy. It stands to reason that if reflected energy is
involved in destructive interference and reverses its direction of
travel in the transmission line, it becomes re-reflected energy with the
voltage and current in phase.

Once we make it through the impedance discontinuity, everything becomes
bright and clear. Our surviving 36 watts are joined by the reflected power
from the load that has been re-reflected by the impedance discontinuity (114 watts)
and we are joined by the constructive interference resulting from the destructive
interference on the other side of the impedance discontinuity (128 watts).
So let's see how much power is in our forward wave traveling toward the load.

36W (not reflected) + 114W (re-reflected) + 128W constructive interference

equals 178W. What do you know? Everything balances perfectly and we can
proceed on to the load where 64% of our new forward wave will be reflected.

Steady-state power measurements indicate 100W forward and 0W reflected on
the 50 ohm side of the impedance discontinuity. There's 278W of forward
power and 178W of reflected on the 450 ohm ladder-line.
--
cheers, CAM http://www.qsl.net/w5dxp

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5263. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 22:52:24 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E064228.7080304@ieee.org>
Source record: 128652

J. Harvey wrote:
> 4) 'Appeal to Authority' arguments are lousy even if the expert isn't wrong.

You and Richard Clark should get together. He keeps demanding an
'Appeal to Authority' argument from me. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5264. Re: 6 Meter Dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 22:58:18 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <VEIGPsPbP3psxSF4mYFwJ5xNQmey@4ax.com>
Source record: 128653

"Ron P." <rpackerii@neo.rr.com> wrote:

>Is the dipole from NorthWest Antennas a good dipole? From what I saw, it had
>the normal balun with a 50ohm connecter, and two pieces of wire with no
>insulators/eyelets. Is this a good antenna for a beginner with little funds
>to get into the 6 meter bands? The antenna is selling for $9.99. Thanks!
>
> Ron - kc8ulu
>

All dipoles are pretty much alike in performance. You might want to consider
building your own. It's something a beginner can do, and it could be even
cheaper than the dipole above. See a site like www.thewireman.com for wire,
insulators, cable, etcetera. Once you build your dipole, you may want to try
more designs!

Bob
k5qwg

5265. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 23:20:12 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <qUOdna0L0lYz1ZujXTWcqA@crocker.com>
Source record: 128654

A+ for stating the required missing assumptions and the correct answers.

"Dave Shrader" <david.shrader@attbi.com> wrote in message
news:3E063C08.2010608@attbi.com...
> If the refrigerator is plugged into a source of energy the temperature
> goes up.
>
> The compressor is inefficient and has thermal losses. So, it takes more
> BTUs to operate the compressor than the resulting BTUs reduction from
> the compressor output. A simpler model is to run an air conditioner
> totally inside a closed room. It gets HOT.
>
> If the refrigerator is thermally stabilized and not operating then the
> temperature remains the same.
>
> There is NO PERPETUAL NOTION MACHINE !! Nothing runs at 100% efficiency!
> So, losses, generally as heat, occur in all processes.
>
> Another way to understand the process. A 100 horsepower automobile
> engine can deliver about 35 horsepower to the road! Most of that missing
> horsepower is converted into heat in the exhaust [caution: just put your
> hand somewhere near your catalytic converter and you will feel quite a
> bit of heat!], in the engine oils, in the coolants, in the brake pads,
> in the tires. Note: the tires are flywheels that take an exceptional
> amount of power just to rotate. The crankshaft takes power to rotate,
> transmission fluids get VERY hot, etc.
>
> The amount of energy, not power, in our COSMOS is fixed and constant. It
> was there at the instant of the BIG BANG. All we can do is change the
> type of energy and measure how quickly energy is consumed in any local
> engine [read transmitter]. My ICOM 746 requires somewhere around 250
> watts input to produce 100 watts output.
>
> David Robbins wrote:
> > "Richard Clark" <kb7qhc@attbi.com> wrote in message
> > news:95ub0v8tctfshi05n1381q165c0vurcp1g@4ax.com...
> > >
> > >>On Sun, 22 Dec 2002 09:29:50 -0600, OC_CAM's Razor
> > >><Cecil.A.Moore@ieee.org> wrote:
> > >>
> > >>
> > >>>"Conservation of Power" is in the index.
> > >>
> > >>Hi Cecil,

> >>
> >>Now there's a recommendation. Is it too baroque to quote?
> >>
> >>If you want to talk Physics, go to a Physicist, not a derivate.
> >>
> >>From Feynman's Lectures, "conservation of energy":
> >>"There was an interesting early relationship between
> >>physics and biology in which biology helped physics in
> >>the discovery of the conservation of energy, which
> >>was first demonstrated buy Mayer in connection
> >>with the amount of heat taken in and given out
> >>by a living creature."
> >>
> >>Thus introduces the notion of an event (taking one amount), over time
> >>(in and out) and accounting for any gain or loss found in the amount
> >>at the end of the event. But Feynman goes on:
> >>"There is a fact, or if you wish, a law, governing natural
> >>phenomena that are known to date, There is no known
> >>exception to this law - it is exact so far as we know.
> >>The law is called the conservation of energy. ...
> >>It is not a description of a mechanism, or anything concrete;
> >>it is just a strange fact that we can calculate some number
> >>and when we finish watching nature go through her tricks
> >>and calculate the number again, it is the same."
> >>
> >>Only Feynman could make this snobbery of conservation into a cosmic
> >>joke. Conservation... explains nothing. As for the mental abacus
> >>I've seen employing Conservation, too often inappropriately,
> >>Interference is not one shot frozen in time at some precise
> >>intersection of two one dimensional lines. Not even in the pristine
> >>world of math/science/religion/economics/politics/ebonics.
> >>
> >>Cecil, the point of the matter is that when you've halted the
> >>discussion to line up your argument, halfway through the event, I am
> >>satisfied to find Conservation AFTER, as Feynman says, "watching
> >>nature go through her tricks."
> >>
> >>73's
> >>Richard Clark, KB7QHC
> >
> >
> > now, there is something to sink your teeth into. BUT, you still have to
be
> > careful to define the system you are looking at when you apply the
> > 'conservation of energy' law. i am still astounded at how many people
get
> > the answer to the following question wrong:
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> > You put a refrigerator in a perfectly insulating room and open the door.
> > (assume the light is burned out so that doesn't heat the room up) What

> > happens to the temperature in the room? Does it go up, stay the same,
or
> > cool off?
> >
> >
> >
>

5266. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-22 23:29:29 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <kmednZyxfLFG15ujXTWc2Q@crocker.com>
Source record: 128655

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E063587.4010404@ieee.org...
> David Robbins wrote:
> > ah, but i have one advantage.
>
> Yes, you have the advantage of the old dead horse steady-state strawman
> cop-out. The only thing I can detect is change and you say if I change
> anything it is not steady-state. Congratulations on your Catch-22, a rule
> that prohibits the questioning of that very rule.
>
> > in this case the resisitor that creates what you call a 'virtual'
> > impedance is a part of the network and must be included or you will not
be
> > able to satisfy the law of conservation of energy.
>
> But you are not allowed to have your energy and eat it too. If it gets
> dissipated in the load resistor 1/2WL away, it doesn't get dissipated
> in the virtual 50 ohms at the transmitter, i.e. there is not 50 ohms
> at the transmitter. There is only a complex interaction of forward and
> reflected waves that nobody except me seems to understand. (That is a
> tongue-in-cheek statement, in case anyone objects.) The only resemblance
> to an actual 50 ohms is the V/I ratio which, like a lossless Z0, is
> dissipationless.

ah, but you are required to account for all your energy. if you define the boundries of your system to be just the area around the 50-450 ohm transition you no longer have a closed system. you now have a 2 port system where you are putting energy into one port and it is leaving at the other port. since the area you are looking at has no dissipative components (assuming the line is lossless) then of course there can be no heating at that point. in the case of the resistor at the end of the 1/2 wavelength line i didn't say there was a 50 ohm resistance at the transmitter terminals, only that you could replace the whole length of line and resistor with just a resistor and you would not be able to tell the difference when measuring at the terminals of the black box. this is a standard problem out of chapter 1 of Ramo/Whinnery/VanDuzer, very simple and straight forward.

5267. Re: 6 Meter Dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 00:03:52 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3E0652E8.43EDEEA8@cwis.net>
Source record: 128656

Ron,
That dipole should work as well as any other
1/2 wave dipole used in a reasonable manner. Also,
at that price, it's probably going to be about what
you could make one for if you don't happen to have
a couple of the components laying around. If the
shipping isn't included in that price, make it your
self (forget about the balun).
'Doc

5268. Re: In-line Wattmeter Accuracy

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 00:07:51 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3E0653D7.1E59256C@cwis.net>
Source record: 128657

'Cam',
He's saying that since you are measuring 'Bird watts',
that there is always at least one 'Bird Watt' reflected in
a perfect system. This one 'Bird Watt' is the checksum, and
should be stripped in a well designed reporting system (which
most people seem to forget).
'Doc

5269. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 00:08:17 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3e065407$0$90232$ba620e4c@news.skynet.be>
Source record: 128658
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

```
| Electrons in a wire move in the direction set by the total emf which is
| either positive, negative, or zero, but they certainly don't move at the
| speed of light.

True. Speed is about 1cm/sec.
--
73 de on5mjREMOVE@skynet.be - Jacques
```

5270. Fractal PhD anyone?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 00:12:18 UTC
From: k3bu@aol.com
Message-ID: <20021222191218.18139.00000339@mb-fc.aol.com>
Source record: 128659

This is what I received in my email:

>>Do you want a prosperous future, increased money earning power, and the respect of all?

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5271. Re: Inexpensive 1/4 wave magmounts?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 00:17:17 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3E06560D.71524751@cwis.net>
Source record: 128660

Bob,
Sounds like your 'crime watch' group is going well
beyond it's 'normal' duties. "Short range comms" implies
mobility, and that implies that the 'watchers' are going
looking for 'crime'. I seriously doubt if your local
police department would advocate or condone such, since
it is the police department's job to do that. 'Crime
watchers' just report suspicious activity, they don't
go looking for it.
'Doc

5272. Re: QSL.NET?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 00:26:31 UTC
From: Jesse <jplummer@bluefrognet.net>
Message-ID: <3E065837.EF09B42A@bluefrognet.net>
Source record: 128664

Just accessed it and my own page...

W6DKN wrote:

> "OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
> news:3E03D692.9040705@ieee.org...
> > Anyone know what has happened to http://www.qsl.net?
> > --
> > cheers, CAM http://www.qsl.net/w5dxp
> >
>
> Good question. The email reflector is still working and you can ping the IP
> address, but no web pages...?
>
> <<< Dan >>>

5273. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 00:27:01 UTC
From: k3bu@aol.com
Message-ID: <20021222192701.18139.00000340@mb-fc.aol.com>
Source record: 128661

tom, KA6RUH wrote:

>The fact remains that the fellow
>who wrote the little story Yuri recommended reading was shamelessly
>playing on the fears of his readers that the government will some day
>take away our guns and our freedoms in order to establish a dictatorship.

How about trying realistically to portray the inevitable. We are half way there already.
Tom, people like you were saying the same thing in post war Czechoslovakia, "it can't happen here" until Communists threw Jan Masaryk from the window ("suicide" - jumped from the window and closed the window behind him) Then installed Gottwald for president and rest was the history - thousands of innocent people died in prisons and concentration labor camps. It took 50 years to overthrow the "righteous" government by peaceful means.
It has happened already in Australia, Canada and other countries, only to see criminality to shoot up. It starts with registration, ban of some weapons and later collection. Government by and for the people has nothing to worry about guns.
Just ask anyone from the old Soviet block what it means to live in "safe" society.

73 Safe and Merry Christmas!

Yuri

5274. Re: Interference

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 00:40:21 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <QXsN9.516$oW.189865@news20.bellglobal.com>
Source record: 128663

"Dave Shrader"
> A 100 horsepower automobile engine
> can deliver about 35 horsepower to the
> road! Most of that missing horsepower
> is converted into heat in the exhaust...

A "100 hp" automobile engine is not rated by the power content of the fuel flow (as you seem to imply), but by something a bit closer to the flywheel output torque and rpm. You're probably correct that the overall efficiency is somewhere around 30%, but the horsepower rating should be a 'net output' at the flywheel. A "100 hp" automobile engine should put out something close to 100 hp at the flywheel (plus lots of heat as well), and most of that 100 hp should get to the drive wheels (there is some further loss in the drivetrain, perhaps around 15-20%).

> The amount of energy, not power, in
> our COSMOS is fixed and constant. It
> was there at the instant of the BIG BANG.

Don't forget that stars convert mass into energy. I suppose you might argue that mass is simply a form of energy, but still...

5275. Re: Foward power question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 00:42:36 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3e065bff$0$90221$ba620e4c@news.skynet.be>
Source record: 128662

The reflected part of the energy is the one which is not absorbed by radiation or dissipation at the end of the line. There is no other possibility, thus what energy can only do is ... travelling backwards. This implies (because of energy conservation at the mismatch pont) that there is a 180° out of phase current.

When there is some reactance at the mismatch point this reactance is equivalent to a modification of line length. Finally a load of R+jX impedance can be replaced by a load of R' impedance on a line slightly different in length. This case is threated easily.

73 de ON5MJ - Jacques.

5276. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 01:36:50 UTC
From: n2ey@aol.com
Message-ID: <20021222203650.00222.00000303@mb-mb.aol.com>
Source record: 128665

In article <3E064157.8010203@ieee.org>, OC_CAM's Razor <Cecil.A.Moore@ieee.org>
writes:

>When one rides the
>crest of a wave traveling at the speed of light, one has all the time
>in the world to think about it since one's wristwatch is not ticking
>at all.

Actually, if one is traveling as described, one has no time at all to think
because time is not passing.

Think of it - to an observer that rides a wave or photon in a vacuum, *no* time
elapses from when the wave leaves the generator to when it arrives at its
destination. When we look at the light from a distant star, galaxy or other
source, we say that it has taken anywhere from a few years to a few billion
years to travel from its source to us - but that's only from our perspective.
From the perspective of the light, no time at all has passed.

73 de Jim, N2EY

5277. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 01:47:27 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E066B2F.1090300@ieee.org>
Source record: 128666

N2EY wrote:
> Actually, if one is traveling as described, one has no time at all to think
> because time is not passing.

Einstein didn't seem to have any trouble thinking about it and
describing it to the rest of us.
--
cheers, CAM http://www.qsl.net/w5dxp

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5278. Insulated Wire Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 01:49:09 UTC
From: macve3gro@aol.com
Message-ID: <20021222204909.16072.00000196@mb-cs.aol.com>
Source record: 128667

I remember W1FB mentioning this, but I forget where and the figures he gave. If you use plastic- or rubber-insulated wire for an antenna instead of bare copper, the antenna ends up being slightly shorter. Does anyone know or remember by what percent? Many thanks. Harry, VE3GRO

Harry MacLean, VE3GRO
500 Riverside Drive, London, ON N6H 2R7
(519) 473-1668

5279. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 01:49:40 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E066BB4.7020307@ieee.org>
Source record: 128668

David Robbins wrote:
> this is a standard problem out
> of chapter 1 of Ramo/Whinnery/VanDuzer, very simple and straight forward.

I think you missed the point. Resistors dissipate power. Virtual
resistors don't. Virtual resistors are a result, not a cause.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

5280. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 01:51:41 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <N_tN9.469597$NH2.33160@sccrnsc01>
Source record: 128519
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

A bit slow. I think.

"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message
news:3e065407$0$90232$ba620e4c@news.skynet.be...
> | Electrons in a wire move in the direction set by the total emf which is
> | either positive, negative, or zero, but they certainly don't move at the
> | speed of light.
>
> True. Speed is about 1cm/sec.
> --
> 73 de on5mjREMOVE@skynet.be - Jacques
>
>

5281. Re: Reflected Pwr at Tx Followup

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 01:59:17 UTC
From: rfry@adams.net
Message-ID: <a1430ee.0212221759.71627041@posting.google.com>
Source record: 128520

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote
> Richard, you are hitting your send button too many times.
> Hit it once, minimize the compose window, and wait for
> awhile.

Not exactly. The NG server at my regular ISP is down, and I have been
trying to post using various other means. When I sent the message I
got a report back saying failure/server busy, so I tried again or used
another way. As it turns out, they were going through after all.

5282. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 02:20:23 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <au5rt7$7jt$1@sparta.btinternet.com>
Source record: 128521

> I can paint you a mental picture. Assume an open circuit, one second long
> lossless 50 ohm transmission line. The transmitter is perfectly happy for
> two seconds and then starts to suffer. Sounds like reflected power damage
> to me.
> --
> cheers, CAM
>
==========

Dear Cecil,

Piffle, copypop, rubbish, utter nonsense!

Something may indeed happen. But because you and many others, it seems, have the phrase "reflected power" burned into your cerebral cortex nothing further can be added to this interminable idiotic discussion. Why not erase it from your vocabularies, hit the 'reset' button and evolve once more from Genesis and the big bang. "In the begining there was light . . . . . " ?

But I can't offer much hope.

Reg.

5283. RFI problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 02:45:39 UTC
From: Alex <alex.draper1@rogers.com>
Message-ID: <nNuN9.43155$F2h1.7737@news01.bloor.is.net.cable.rogers.com>
Source record: 128522

Todays amplified computer speakers seem to pickup any little bit of rf. I can take care of my own with shielding and grounding but everyone else around me has computers. Any thoughts about antenna designs that will minimize rfi? The real question to debate is which antenna will work best?

5284. Re: Insulated Wire Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 03:24:02 UTC
From: k3bu@aol.com
Message-ID: <20021222222402.07080.00000576@mb-mu.aol.com>
Source record: 128523

>
>I remember W1FB mentioning this, but I forget where and the figures he gave.
>If
>you use plastic- or rubber-insulated wire for an antenna instead of bare
>copper, the antenna ends up being slightly shorter. Does anyone know or
>remember by what percent? Many thanks. Harry, VE3GRO
>Harry MacLean, VE3GRO

Hi Harry,

depending on type of insulation, it is around 3 - 5 %.

In my case, using electrical PVC insulated #12 wire for quad loops it was 5%.

73 and Merry Christmas

Yuri, VE3BMV

5285. Re: Insulated Wire Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 03:27:31 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <au5vr2bua1@sparta.btinternet.com>
Source record: 128524

An insulated wire has an undetectable effect on the resonant frequency of an HF antenna. It's a matter of 1 or 2 inches difference in length.

If you should insulate it to the same diameter and thickness as the stuff on your domestic hot water cylinder, and you can do an A-B test, then with precision measuring equipment you might detect a small difference.

But with thin plastic insulated wire there's no possible danger of the resonant frequency being shifted outside an amateur band as indicated on your so-called SWR meter.

Variation in height of an antenna wire above ground (which everybody forgets about anyway) has an appreciably greater effect. If you have nitpicking tendencies then all antenna wires need pruning in situ whether they are insulated or not.

A complicated calculating formula is available. But as implied above, using it is a waste of time.

It should be understood an off-resonant antenna is just as efficient as when resonant. Only a minor readjustment of the tuner may be needed.

Don't let the old-wives and magazine article writers frighten you. Ignore such malicious rumours. ;o)

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

"Harry MacLean VE3GRO" <macve3gro@aol.com> wrote in message news:20021222204909.16072.00000196@mb-cs.aol.com...
> I remember W1FB mentioning this, but I forget where and the figures he gave. If
> you use plastic- or rubber-insulated wire for an antenna instead of bare
> copper, the antenna ends up being slightly shorter. Does anyone know or
> remember by what percent? Many thanks. Harry, VE3GRO
> Harry MacLean, VE3GRO
> 500 Riverside Drive, London, ON N6H 2R7
> (519) 473-1668

5286. Re: RFI problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 03:29:21 UTC
From: Bill M <don'tspamme-exray@caribe.net>
Message-ID: <v0d0lfb61fe41d@corp.supernews.com>
Source record: 128525

Alex wrote:
> Todays amplified computer speakers seem to pickup any little bit of rf. I
> can take care of my own with shielding and grounding but everyone else
> around me has computers. Any thoughts about antenna designs that will
> minimize rfi? The real question to debate is which antenna will work best?
>
>
QRP into a dummy load a mile away is about the only way to stay out of
amplified computer speakers. I hear guys in the Northeast receiving
WBCQ from Maine and Radio Canada on theirs.
You could probably bypass and shield everybody's speakers with some
degree of success but short of going QRT there's not much you can do at
the xmtg end.

-BM

5287. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 03:31:18 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <4svN9.467$o51.231529@news20.bellglobal.com>
Source record: 128527
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

>>| Electrons in a wire move in the direction set by the
>>| total emf which is either positive, negative, or zero,
>>| but they certainly don't move at the speed of light.

> "ON5MJ"
> > True. Speed is about 1cm/sec.

"CW"
> A bit slow. I think.

Jacques is in the right ballpark.

Of course the average velocity for an electron depends on the current and wire gauge (in other words, current density). I did the math once for a 1 amp current in a 14-ga copper wire and it worked out to something similar to Jacques' number, but I don't recall the exact answer. But it was very slow.

For those NG lurkers that may wonder why the light comes on so quickly when the light switch is thrown - while the electrons might take several minutes...

They need to keep in mind that voltage is analogous to water pressure.

Start a distant water pump and the water at the near end (far, far away from the pump) will start to flow almost immediately (assuming that the pipe is already full of water in the same way that a wire is already full of free electrons). But the particular water that was at the pump when it started pumping (perhaps marked with dye) might not arrive at the other end for many hours.

The pressure wave (voltage) moves very quickly. The actual water flow (electrons) depends on the flow rate (current).

5288. Re: RFI problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 03:33:11 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3E0683F7.E5746100@cwis.net>
Source record: 128526

Alex,
The problem isn't with the antenna, and you can't 'cure'
it by changing antennas...
'Doc

5289. Re: Fractal PhD anyone?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 03:35:33 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3E068485.B70B499@cwis.net>
Source record: 128528

Yuri,
You better watch it, he'll sue you...
'Doc

5290. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 03:51:14 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E068832.9040409@ieee.org>
Source record: 128529

Reg Edwards wrote:
> Why not erase
> it from your vocabularies, hit the 'reset' button and evolve once more from
> Genesis and the big bang. "In the begining there was light . . . . . " ?

Reg, your bible is sure different from mine. Mine says, "In the beginning,
God created the heaven and the earth." He didn't create light until the
third verse. And as a matter of fact, the early universe was opaque and
"darkness was (indeed) upon the face of the deep".
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5291. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 04:00:35 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <xTvN9.510$o51.238014@news20.bellglobal.com>
Source record: 128530

"OC_CAM's Razor"
> "In the beginning, God created the heaven and the earth."

A couple of days early...34 years ago...
http://nssdc.gsfc.nasa.gov/planetary/lunar/apollo8_xmas.html

Happy Holidays !

5292. Re: Beams for 10-12-15m only ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 04:21:00 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <v0d3nlq1qespeb@corp.supernews.com>
Source record: 128531

I use a much larger Tennadyne LPDA and other LPDAs. The Tennadyne LPDAs are well designed. However, if you live where there is lots of wind or ice, you will want to reinforce the boom at the big end (slight extra cost to have done at the factory) and use plastic struts. You also want to mount a coil balun right at the boom-to-mast connection. (One piece of coax that is connected to the boom/transmission-line at the short end, run along the boom to the boom/mast bracket, and then formed into a coil that bridges the hot-to-cold transition from the boom to the mast.) The "little" Tennadyne fits to a "T" what you have told us you wish to do. Mac N8TT

--

J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net
"Tarmo Tammaru" <t-tammaru@home.com> wrote in message news:lpecnSp3oZ7lS5ijXTWc3Q@comcast.com...
> Tennadyne makes a log periodic that goes from 18 to 33 MHz.
>
> Tam/WB2TT
> "
>
>

5293. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 04:45:52 UTC
From: Tom Nelson <nelsonca@stormnet.com>
Message-ID: <3E069500.9090408@stormnet.com>
Source record: 128532
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Make a dipole centered on your balcony and let the ends droop down to your downstairs neighbor's balcony. Use insulated wire and, of course, get your neighbor's approval. Do NOT tell your "supe" or landlord. You can use very small wire that matches the color scheme. Be prepared to experiment. SW listening in an apartment can be tough due to interference. Touch switches, aquarium heaters, computers, and a ton of other cheap electric gee-gaws will send off signals on the exact frequency to which you wish to listen! Good luck. Please report back.

Tom
KD6EVM

Candy wrote:

>I live in an appartment, urban area (down town). My new YB-400
>receives only strong stations (indoor) when I extend its built-in
>antenna, weaker stations are barely audible, and there is lot of
>noise, too. Reel antenna by Grundig which is included in the
>package, improves sensitivity a bit.
>
>Someone told me an outdoor antenna may reduce noise(?) and improve
>sensitivity.
>
>I am really radio illiterate, so all I can think off is a kind of
>small inverted-L antenna, 3.80m (12.46') long enamelled copper wire
>span on a top of a balcony ceiling which will be about 10 metres
>above a street.
>
>Will this project help ? If so, should I use a bare copper wire
>or enamelled wire ? Do I need a tuner for the antenna to cover
>11-90m bands ?
>
>If this idea for reducing noise and improving sensitivity is useles,
>please suggest something that will work. A balcony is 390x30cm.
>
>Are there any pre-built low cost outdoor stealth antennas which will
>help in my case ?
>
>Thank you very much.
>
>
>

5294. Re: Inline Wattmeter Accuracy

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 06:41:30 UTC
From: Gerry MacDonald <gerry.macdonald@globaltv.ca>
Message-ID: <ueyN9.28422$k13.708238@news0.telusplanet.net>
Source record: 128533

Please give me the name of the manufacturer that has a useable, affordable,
DC with a RL of 70 dB...

Gerry MacDonald
VE6QLT

"Richard Fry" <rfry@adams.net> wrote in message
news:a1430ee.0212221206.20b95f30@posting.google.com...
> OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote
> > Are you saying that a 50 ohm load fed by a 50 ohm coax will not
> > indicate zero reflected power?
>
> True reflected power is zero for those conditions, but an inline wattmeter
> will not read zero then. It will read whatever power its element can't
> reject from the forward power in the line.
>
> With ZERO true reflected power, an inline wattmeter element with its
typical
> directivity spec of 26dB will read about 5 watts of reflected power for
> every 100 watts of forward power.
>
> > Or are you saying there's no such
> > thing as a perfect 50 ohm load fed by a perfect 50 ohm coax
> > measured by a perfect 50 ohm wattmeter?
>
> Transmission lines and terminations can be constructed or matched to high
> return losses (70dB or more), at least over limited RF bandwidths.
> With careful design and custom calibration, directional couplers also can
> approach this performance, as well.
>
> However most standard, commercial transmission lines and reference
> mismatches/loads have better off-the-shelf performance than the
> off-the-shelf directional couplers/wattmeters we are discussing.
>
> An additional consideration is that the directional coupler should have at
> least 10dB better directivity than the return loss performance of the load
> it is used to measure. Therefore if the true VSWR of a termination is
> 1.03:1 (36dB return loss), the directional coupler needs 46dB directivity
to
> measure it with tolerable(?) error. That is 20dB beyond the spec of the
> typical inline wattmeter element.
>
> Richard Fry

5295. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 08:01:47 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0212230001.38239e10@posting.google.com>
Source record: 128534

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3E066B2F.1090300@ieee.org>...
> N2EY wrote:
> > Actually, if one is traveling as described, one has no time at all to think
> > because time is not passing.
>
> Einstein didn't seem to have any trouble thinking about it and
> describing it to the rest of us.

How fast would a 5wpm code test be the way Einstein rode the waves?

w3rv

5296. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 08:42:40 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <au6ia0upa1@slb3.atl.mindspring.net>
Source record: 128539

Cecil:

Cecil and Albert surfing together! I can see it now. Cecil waving
a sidearm and Albert waving a piece of chalk as they run a line at
a great beach break.

Hmmm... Yesterday I was walking along the beach boardwalk here in
Indialantic By-the-Sea, FL.

There were about 10 surfers on the waves.

Most were wearing wet suits, but a couple wore only board shorts.
Only one was female, she may have been wearing a bikini under her
wetsuit, or perhaps nothing, but I couldn't tell without my binoculors.

I am now wondering?

When you [and Einstein] are riding a wave along a transmission line,
are you also riding the current? Does the wave move in the same
direction as the current? Can you see the electrons as you ride
the wave?

Is it possible to ride an electron?
Did Einstein ever do this?
Is it more illuminating than riding the wave?
Did Einstein hate electrons as well as Quantum Mechanics?

I was born near the shorline and I swam in the waves of many
waters since my youth. I recently bought myself a longboard at
http://www.longboardhouse.com, and these days I'm trying to "catch
waves" here in Indialantic By-the-Sea. http://www.indialantic.com

As a boy I observed the waves always seem to come towards
the beach. I used to wonder if the waves in China went away
from the shorline instead of towards it.

As an adult, I have been lucky enough to travel the world. I have visited
beaches on the Atlantic coast of North and South America, the Atlantic
coast of Europe and Africa, the Pacific coast of North America, the Pacific
coast of China and Japan, and both ends of the Meditereanean. I duly
noted that the waves always seem to be moving towards the shorline.

My empirical observations have convinced me that waves never go out!
They always come in. Hence reflected waves must be ficticious or at
least suspect.

Waves... they are always hard to catch! Especially for us old guys!

So Cecil, just what is the relationship between current and wave?

Is it possible to determine the direction of a wave from a single
observation of only the voltage V at a single point/plane
on a transmission line?

Is it possible to determine the direction of a wave from
a single observation of both current I and voltage V at a single
point/plane on a transmission line?

Food for thought experiments.

--
Peter K1PO
Indialantic By-the-Sea, FL

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E064157.8010203@ieee.org...
> Einstein envisioned himself riding waves of light on his way to his
> theory of relativity. It's a very useful concept. When one rides the
> crest of a wave traveling at the speed of light, one has all the time
> in the world to think about it since one's wristwatch is not ticking
> at all. Let's ride the forward wave from the transmitter to the load
> in the following example and see for ourselves what happens.
>
> 100W 50 ohm XMTR--coax--+===1/2WL 450 ohm ladder-line===50 ohm resistor
>
> We emerge from the XMTR riding the wave in a 50 ohm environment.
> Our wave is 70.7V at 1.414A in phase. We might be headed for a 50
> ohm load. But we look ahead and see an impedance discontinuity. It
> is a step function from our 50 ohm environment to a 450 ohm environment.
> We are pretty savvy about such things and brace ourselves for a
> reflection of 64% of our power. We sure don't see 50 ohms. What we
> see is a bunch of interacting waves.
>
> SWR = 450/50 = 9:1, Rho = (SWR-1)/(SWR+1) = 0.8, Rho^2=0.64 or 64%
>
> As we get closer to the impedance discontinuity, we realize that we
> have already achieved steady-state conditions and a large destructive
> interference process is in progress which tells us there is an impedance
> match happening at the impedance discontinuity. Assuming that our wave
arrives
> at the impedance discontinuity with the V-I phase angles at zero degrees,
> we know the discontinuity will generate a reflected wave of 56.57V at
> zero degrees and 1.13A at 180 degrees. But we do not see such a wave
> flowing back toward us. As we get closer we see why. There is a reflected
> wave from the load flowing through the impedance discontinuity and its
> voltage is 56.57V at 180 degrees and its current is 1.13A at zero degrees.
>
> Of course, now we realize what is happening. We're smarter than the
average
> bear and know that coherent waves with equal voltages and currents and
> opposite phases will cancel each other. That's why it's so dark on this

> side of the impedance discontinuity.
>
> 56.57V at 0 degrees and 1.13A at 180 degrees added to
> 56.57V at 180 degrees and 1.13A at 0 degrees equals
> ZERO volts and amps. So what we see is the darkness of destructive
> interference. However, we know that the energy in each of those two waves
> was 64 joules/sec each so the total energy involved in the destructive
> interference is 128 joules/sec. Where does that energy go?
>
> We take the temperature of the impedance discontinuity and don't detect
> any dissipation so we can be sure that the energy has turned around and
> gone the only other direction possible, i.e. back toward the load. We
> also note that since each of those canceled waves has the voltage and
> current 180 degrees out of phase, we know the energy in those two waves
> was reflected energy. It stands to reason that if reflected energy is
> involved in destructive interference and reverses its direction of
> travel in the transmission line, it becomes re-reflected energy with the
> voltage and current in phase.
>
> Once we make it through the impedance discontinuity, everything becomes
> bright and clear. Our surviving 36 watts are joined by the reflected power
> from the load that has been re-reflected by the impedance discontinuity
(114 watts)
> and we are joined by the constructive interference resulting from the
destructive
> interference on the other side of the impedance discontinuity (128 watts).
> So let's see how much power is in our forward wave traveling toward the
load.
>
> 36W (not reflected) + 114W (re-reflected) + 128W constructive interference
>
> equals 178W. What do you know? Everything balances perfectly and we can
> proceed on to the load where 64% of our new forward wave will be
reflected.
>
> Steady-state power measurements indicate 100W forward and 0W reflected on
> the 50 ohm side of the impedance discontinuity. There's 278W of forward
> power and 178W of reflected on the 450 ohm ladder-line.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5297. Re: Practical experience on using burried radials, insulated ornot ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 08:46:10 UTC
From: 4nec2@gmx.net
Message-ID: <ee90361b.0212230046.739ffbae@posting.google.com>
Source record: 128535

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<au4v5a$5sq$1@helle.btinternet.com>...
> SHALLOW-BURIED RADIAL SYSTEMS.

A lot of theoretical thoughts. I hoped to hear from someone having
more practical experience on the subject...

> By far the greatest amount of loss occurs in the layers of soil in contact
> with and immediately surrounding a wire. That's where the transverse
> resistance of a thin layer of soil is greatest and where the greatest
> current concentration occurs.

Lets add some wild thoughts from my side. I think all agree that
current flowing through ground produces losses. When using some bare
and some insulated wires, the current, induced in the nearby ground,
will have more difficulties reaching a ground-wire, because of the
insulation. I suppose these currents will still be able to reach the
ground-wire because of capacitance effects between the wire and the
nearby ground. However that would not agree with Reg's explanation...

Arie.

5298. Re: Beams for 10-12-15m only ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 09:52:24 UTC
From: Torbjørn Morka <tmorka@online.no>
Message-ID: <3E06DCD8.8080308@online.no>
Source record: 128536

Tarmo Tammaru wrote:
> Tennadyne makes a log periodic that goes from 18 to 33 MHz.
>
> Tam/WB2TT
> "
>
>

Nice info, thanks !

T.

5299. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 12:09:48 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <5nmdnaE2sayXYJujXTWcrg@crocker.com>
Source record: 128537

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:au5rt7$7jt$1@sparta.btinternet.com...
> > I can paint you a mental picture. Assume an open circuit, one second
long
> > lossless 50 ohm transmission line. The transmitter is perfectly happy
for
> > two seconds and then starts to suffer. Sounds like reflected power
damage
> > to me.
> > --
> > cheers, CAM
> >
> ================================
>
> Dear Cecil,
>
> Piffle, copypop, rubbish, utter nonsense!
>
> Something may indeed happen. But because you and many others, it seems,
have
> the phrase "reflected power" burned into your cerebral cortex nothing
> further can be added to this interminable idiotic discussion. Why not
erase
> it from your vocabularies, hit the 'reset' button and evolve once more
from
> Genesis and the big bang. "In the begining there was light . . . . . " ?
>
> But I can't offer much hope.

i'll agree with that. 'reflected power' is probably one of the worst
phrases to hit amateur radio EVER! if everyone would only learn that
'power' is a result of current or voltage not a cause it would help. And if
they learned to think in terms of reflected currents or voltages and learn
how to keep track of them as vectors it would be much easier all around. as
many on here have seen 'power' is normally represented as a single scaler
value at a point, this hides all the complex nature of the waves that are
really doing the work. you can not work backwards from a single '100w' to
figure out the combination of forward and reflected waves that added up to
give that to you. over simplification of problems and over use of the
'steady state' assumptions in cases where they can't apply are another
common problem.

5300. Re: RFI problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 12:17:22 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <oECdnXKNOo1_Y5ujXTWc2Q@crocker.com>
Source record: 128538

to reduce rfi by changing the antenna you have to get the antenna as far away from the problem as possible. this makes a good case for higher towers! the higher the antenna the further it is from the speakers and the less interference. the only other cure on the antenna end is to reduce the field strength by doing dumb things like adding a resistor across the terminals, making the antenna smaller and less efficient, etc.

now, there are a few non-antenna related problems that can cause this problem. pickup of rf on the shield of the feedline is one of them, if you are using coax to feed the antenna try adding some ferrite chokes to the line. this helps by keeping the rf further away from the speakers instead of letting it follow the shield back into the house. adding ferrite chokes to the computer and speaker power cords can also help, adding a filtered power strip or ups to the computer can help a bit also.

"Alex" <alex.draper1@rogers.com> wrote in message
news:nNuN9.43155$F2h1.7737@news01.bloor.is.net.cable.rogers.com...
> Todays amplified computer speakers seem to pickup any little bit of rf. I
> can take care of my own with shielding and grounding but everyone else
> around me has computers. Any thoughts about antenna designs that will
> minimize rfi? The real question to debate is which antenna will work
best?
>
>

5301. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 12:45:53 UTC
From: N2EY@AOL.COM
Message-ID: <c2356669.0212230445.3bbe92f7@posting.google.com>
Source record: 128540

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote in message
news:<3E066B2F.1090300@ieee.org>...
> N2EY wrote:
> > Actually, if one is traveling as described, one has no time at all to think
> > because time is not passing.
>
> Einstein didn't seem to have any trouble thinking about it and
> describing it to the rest of us.

Einstein wasn't traveling as described in your original post.

73 de Jim, N2EY

5302. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 12:49:31 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E07061E.8050201@attbi.com>
Source record: 128541

Cecil's correct.

Change the line to one that is infinitely long and open circuited. VSWR
= Infinity but the transmitter sees 50 ohms and is infinitely happy forever.

Now make the line 30 seconds long. For the first 30 seconds the
transmitter sees 50 ohms and is happy. The VSWR = Infinity and after
another 30 seconds, 60 seconds total, the transmitter absorbs the
reflected wave and increased stress occurs. My IC746 cuts back on output
power.

I don't like the term 'virtual resistance'. At the university we used
Characteristic Impedance.

Deacon Dave, W1MCE

Reg Edwards wrote:
>>I can paint you a mental picture. Assume an open circuit, one second long
>>lossless 50 ohm transmission line. The transmitter is perfectly happy for
>>two seconds and then starts to suffer. Sounds like reflected power damage
>>to me.
>>--
>>cheers, CAM
>>
>
> ================================
>
> Dear Cecil,
>
> Piffle, copypop, rubbish, utter nonsense!
>
> Something may indeed happen. But because you and many others, it seems, have
> the phrase "reflected power" burned into your cerebral cortex nothing
> further can be added to this interminable idiotic discussion. Why not erase
> it from your vocabularies, hit the 'reset' button and evolve once more from
> Genesis and the big bang. "In the begining there was light . . . . . " ?
>
> But I can't offer much hope.
> ---
> Reg.
>
>

5303. Vs: Insulated Wire Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 13:10:11 UTC
From: "Antti J. Huhtala" <oh2dt@sral.fi>
Message-ID: <au71v3tcn1@nyytiset.pp.htv.fi>
Source record: 128542

Harry, my experience is in agreement with Yuri's but in disagreement with Reg's.
Building my first quad in 1965 I used loop dimensions given in the ARRL Handbook for _bare copper wire_. Ignorant of the difference at the time, I used plastic insulated wire. The quad didn't work at all - it had little or no
directivity and a terrible SWR throughout the band.

One week and a lot of tuning later I had shortened the loops approx. by one meter, ie. 5 %. Front-to-back was a respectable 25 dB and SWR was 1.

Reg may be right about the efficiency of non-resonant antennas - as long as they are _dipoles_ or Hertz-type antennas. Neglecting to consider wire insulation in _parasitic_ element antennas will most likely throw element resonances out of the band with disastrous results in both F/B and SWR.

Antti, OH2DT
technical editor, "Radioamat��ri"

"Harry MacLean VE3GRO" <macve3gro@aol.com> wrote
news:20021222204909.16072.00000196@mb-cs.aol.com...
> I remember W1FB mentioning this, but I forget where and the figures he gave. If
> you use plastic- or rubber-insulated wire for an antenna instead of bare
> copper, the antenna ends up being slightly shorter. Does anyone know or
> remember by what percent? Many thanks. Harry, VE3GRO
> Harry MacLean, VE3GRO
> 500 Riverside Drive, London, ON N6H 2R7
> (519) 473-1668

5304. Re: Inline Wattmeter Accuracy

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 13:52:00 UTC
From: richardharrison@webtv.net
Message-ID: <5508-3E071500-591@storefull-2317.public.lawson.webtv.net>
Source record: 128544

Richard Fry wrote:
"With ZERO true reflected power, an inline wattmeter element with its typical directivity spec of 26 dB will read about 5 watts of reflected power for every 100 watts of forward power."

First, 5 watts is 5% of a 100 watt full scale. If that`s the reflected power reading into a matched dummy load, a new element may be required or you may need to re-zero the indicator meter. It probably reads 5 watts when out of service.

26 dB of directivity is not a plain numerical power ratio of 100/5, or 20.
A power ratio of 20 in plain numerical terms is a power ratio of about 13 dB.

26 dB of directivity is a plain numerical power ratio of about 400.
Therefore, an inline wattmeter with a full-scale of 100 watts could be in error due to directivity by 100/400, or by 0.25 watts, maximum.

Best regards, Richard Harrison, KB5WZI

5305. Re: Inline Wattmeter Accuracy

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 14:02:03 UTC
From: rfry@adams.net
Message-ID: <a1430ee.0212230602.573d4962@posting.google.com>
Source record: 128543

"Gerry MacDonald" <gerry.macdonald@globaltv.ca> wrote
> Please give me the name of the manufacturer that has a useable, affordable,
> DC with a RL of 70 dB...

Getting directivity of this level (reliably) is a do-it-yourself
project. Example...

Dielectric Communications makes a series of "saddle mount" RF
directional couplers designed to fit on EIA rigid coaxial transmission
line. The probe itself samples the EM fields in the line through a
hole in the coax outer conductor. The angle and penetration of the
probe determines its output voltage and directivity, and both are
adjustable by the user. The RF sample from the probe is terminated
internally in a precision, non-reactive 50 ohm load, across which the
sampled RF is available via a Type N connector. With careful effort,
the coupler can achieve 60-70dB directivity when a precision
termination is used to terminate the EIA line on which the coupler is
mounted.

Wiltron (now Anritsu) made/makes an RF bridge with ~60dB directivity,
which I have used successfully in a process to "slug" the RF output
networks of combined-parallel broadcast television transmitters so
that operational mode changes did not skew their video response.

The challenge is to be able to attach the calibrated coupler/line
assembly to the system under test without introducing reflections and
measurement error in the process.

Richard Fry

5306. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 14:14:29 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E071A45.9040506@ieee.org>
Source record: 128545

Peter O. Brackett wrote:
> When you [and Einstein] are riding a wave along a transmission line,
> are you also riding the current? Does the wave move in the same
> direction as the current? Can you see the electrons as you ride
> the wave?

Actually, I prefer the safety of standing on the H floor and leaning
against the E wall.

> Is it possible to ride an electron?

It's possible but you cannot know where you are AND how
fast you are going. It's not very useful.

> As a boy I observed the waves always seem to come towards
> the beach.

Your observation was inaccurate, Peter. Often, from cliffs overlooking
the Pacific Ocean, I have seen small waves heading out to sea disappear
into the big waves heading in from the sea only to re-appear on the
ocean side of the big waves undisturbed. That's what happens to reflected
waves in the presence of forward waves. Until the waves encounter a
discontinuity, they don't even know each other is there.

But you don't have to wait for waves. Toss two rocks into a pond.

> I duly
> noted that the waves always seem to be moving towards the shorline.

Go to Fitzgerald's Marine Reserve just north of Half Moon Bay, CA and
on a day with waves, you will see waves moving out to sea.

> My empirical observations have convinced me that waves never go out!

How wrong you are. You obviously didn't get the correct perspective.

> They always come in. Hence reflected waves must be ficticious or at
> least suspect.

Your experience is too limited. On any day with waves, you can see them
going out to sea along the CA coastline. There is a mismatch between
the waves and the beach and some of the wave energy is reflected back
out to sea.

> Waves... they are always hard to catch! Especially for us old guys!

Actual radio newscast circa WWII. "Today a Marine was sucked under the
Boardwalk by a big Wave."

> So Cecil, just what is the relationship between current and wave?

Don't bother with voltages and currents. Try E-H fields and everything
will be clear.

> Is it possible to determine the direction of a wave from a single
> observation of only the voltage V at a single point/plane
> on a transmission line?

Is it possible to determine the direction of an ocean wave from a
single observation of only the height of the wave? Do ocean waves
exist?
--
cheers, CAM http://www.qsl.net/w5dxp

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5307. Re: Practical experience on using burried radials, insulated ornot ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 14:21:26 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E071BE6.4000905@ieee.org>
Source record: 128547

4nec2@gmx.net wrote:
> Lets add some wild thoughts from my side. I think all agree that
> current flowing through ground produces losses. When using some bare
> and some insulated wires, the current, induced in the nearby ground,
> will have more difficulties reaching a ground-wire, because of the
> insulation. I suppose these currents will still be able to reach the
> ground-wire because of capacitance effects between the wire and the
> nearby ground. However that would not agree with Reg's explanation...

It is not just capacitive effects. It is field effects. The fields
surrounding a bare wire and an insulated wire are very much alike and
either way the fields are forming a similar pattern in the lossy ground.
--
cheers, CAM http://www.qsl.net/w5dxp

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5308. Re: Vs: Insulated Wire Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 14:21:56 UTC
From: k3bu@aol.com
Message-ID: <20021223092156.06624.00000358@mb-fp.aol.com>
Source record: 128546

>
>Reg may be right about the efficiency of non-resonant antennas - as long as
>they are _dipoles_ or Hertz-type antennas. Neglecting to consider wire
>insulation in _parasitic_ element antennas will most likely throw element
>resonances out of the band with disastrous results in both F/B and SWR.
>
>Antti, OH2DT

Bingo, Amen!

Reg, G4FGQ writes:
>Don't let the old-wives and magazine article writers frighten you. Ignore
>such malicious rumours. ;o)

Reg,
have you ever built and compared say Quad with bare and insulated wire? I did, when calculated dimensions for 10m 3 el. quad using bare wire (EZNEC does not consider insulated wire inclusion) and built elements with insulated electrical wire, the Quad ended up right in the middle of CB band. It sure makes big difference when building resonant elements out of wire.

Looks to me that for now we can design the antenna in the software using bare wire, then adjust the elements by the shortening factor. This can be found out by constructing one element out of wire intended for use and comparing its measured resonant frequency to calculated one. Again, close approximation for PVC house wiring is about 5%.

Nice feature of modeling software is that allows us to determine the resonant frequency of the element when taken out of the antenna and then to match it while building the element (out of the antenna) for precise replication of the design.

Maybe "old-wives" that EXPERIENCED the stuff know more than those that "figured it out"?

73 Yuri

5309. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 14:23:36 UTC
From: rfry@adams.net
Message-ID: <a1430ee.0212230623.5e37a39@posting.google.com>
Source record: 128548

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote
>..because you and many others, it seems, have the phrase
>"reflected power" burned into your cerebral cortex nothing
>further can be added to this interminable idiotic discussion.
>Why not erase it from your vocabularies, hit the 'reset'
>button...

You can call it whatever you want, I suppose, at the risk of being misunderstood by those who use conventional terminology. Reflections DO exist, and their result (melted parts) is prima-facie evidence that they can carry substantial power.

Richard Fry

5310. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 14:28:07 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.co.uk>
Message-ID: <wRYathH31xB+EAPg@ifwtech.co.uk>
Source record: 128549

David Robbins wrote:
>'reflected power' is probably one of the worst phrases to hit amateur
>radio EVER! if everyone would only learn that 'power' is a result of
>current or voltage not a cause it would help. And if they learned to
>think in terms of reflected currents or voltages and learn how to keep
>track of them as vectors it would be much easier all around.

Agreed - that's why I'm staying well out of this!

This "reflected power" debate comes around here at least twice a year, and every single time, it's doomed to fizzle out in discontented disagreement. The printed version in QEX and CommQuart (SK) is even worse, because it's a series of one-way proclamations with no opportunity to reply for several months - that's just a total waste of trees.

Nobody ever wins, because nobody ever *can* win. That's because, as Dave and Reg both imply, the fault lies in the question itself.

As more and more of us come to realise that, we simply walk away.

Happy Holidays!

--
73 from Ian G3SEK 'In Practice' columnist for RadCom (RSGB)
Editor, 'The VHF/UHF DX Book'
http://www.ifwtech.co.uk/g3sek

5311. Re: Inline Wattmeter Accuracy

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 14:31:41 UTC
From: richardharrison@webtv.net
Message-ID: <21472-3E071E4D-535@storefull-2315.public.lawson.webtv.net>
Source record: 128552

Richard Fry wrote:
"Therefore if true VSWR of a termination is 1.03: 1 (36dB return loss) the directional coupler needs 46 dB directivity to measure it with tolerable(?) error."

Bird`s VSWR slide rule starts at a VSWR of 1.1:1, which for example is 100 watts forward and about 0.25 watts reflected. Return loss is about 26.5 dB.

This indicates you probaably could not expect accuracy in determining smaller VSWR`s using a Bird wattmeter.

Best regards, Richard Harrison, KB5WZI

5312. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 14:32:18 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E071E72.6060501@ieee.org>
Source record: 128550

David Robbins wrote:
> you can not work backwards from a single '100w' to
> figure out the combination of forward and reflected waves that added up to
> give that to you.

As a matter of fact, with the most common of ham radio configurations,
we can work backwards from a single '100w' to figure out the exact
combination of forward and reflected waves. That most common of all
ham radio configurations is a matched system where zero reflected
power flows back into the transmitter. In an ideal system, if a
match is achieved at a point, all the voltages and all the currents
are either in phase or 180 degrees out of phase. Consider:

100W XMTR---50 ohm coax---+===Some other Z0===
100W forward X watts forward
0W reflected Y watts reflected

You give me the other Z0, X, and Y and I can tell you all the voltages,
currents, and phase angles existing at the match point.
--
cheers, CAM http://www.qsl.net/w5dxp

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5313. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 14:33:29 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E071EB9.9030908@ieee.org>
Source record: 128551

N2EY wrote:
> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>
>>N2EY wrote:
>>
>>>Actually, if one is traveling as described, one has no time at all to think
>>>because time is not passing.
>>
>>Einstein didn't seem to have any trouble thinking about it and
>>describing it to the rest of us.
>
> Einstein wasn't traveling as described in your original post.

Einstein said he traveled that way. Did Einstein lie?
--
cheers, CAM http://www.qsl.net/w5dxp

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5314. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 14:46:05 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0721AD.1000507@ieee.org>
Source record: 128553

Richard Fry wrote:
> "Reg Edwards" <g4fgq.regp@btinternet.com> wrote
>>..because you and many others, it seems, have the phrase
>>"reflected power" burned into your cerebral cortex nothing
>>further can be added to this interminable idiotic discussion.
>>Why not erase it from your vocabularies, hit the 'reset'
>>button...
>
> You can call it whatever you want, I suppose, at the risk of being
> misunderstood by those who use conventional terminology. Reflections
> DO exist, and their result (melted parts) is prima-facie evidence that
> they can carry substantial power.

For instance, consider the one second long lossless open-circuit
transmission line. Key-down the transmitter for two seconds and then
switch from the transmitter to a matched dipole. We will certainly
be transmitting the same power generated by the transmitter just
delayed by two seconds in time.
--
cheers, CAM http://www.qsl.net/w5dxp

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5315. Wattmeter Math

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 14:59:00 UTC
From: rfry@adams.net
Message-ID: <a1430ee.0212230659.3bd20e70@posting.google.com>
Source record: 128554

(See embedded comments below)

"Richard Harrison" <richardharrison@webtv.net> wrote
> Richard Fry wrote:
> "With ZERO true reflected power, an inline wattmeter element with its
> typical directivity spec of 26 dB will read about 5 watts of reflected
> power for every 100 watts of forward power."
>
> First, 5 watts is 5% of a 100 watt full scale. If that`s the reflected
> power reading into a matched dummy load, a new element may be required
> or you may need to re-zero the indicator meter. It probably reads 5
> watts when out of service.

Do so at your own risk for destroying OEM accuracy.

> 26 dB of directivity is not a plain numerical power ratio of 100/5,
> or 20. A power ratio of 20 in plain numerical terms is a power ratio
> of about 13 dB.

The "wattmeter" reads a detected voltage, therefore

dB = 20*log(5/100) = 26dB

> 26 dB of directivity is a plain numerical power ratio (clip)

We have to stop here, because the directivity is specified in terms of
voltage, not power.

> of about 400.
> Therefore, an inline wattmeter with a full-scale of 100 watts could be
> in error due to directivity by 100/400, or by 0.25 watts, maximum.

No. Anyway 100/400 * 100W = 25W, not 0.25W.

Richard Fry

5316. Re: RFI problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 15:12:50 UTC
From: richardharrison@webtv.net
Message-ID: <29126-3E0727F2-567@storefull-2316.public.lawson.webtv.net>
Source record: 128556

Alex wrote:
"Any thoughts about antenna designs that will minimize rfi?"

Search on "Antennas for Communications"

Erect your conical horn in a location that excludes the susceptible receivers from its beam.

Best regards, Richard Harrison, KB5WZI

5317. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 15:15:11 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <v86cnQCr2ZAHtZqjXTWc2Q@crocker.com>
Source record: 128555

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E071E72.6060501@ieee.org...
> David Robbins wrote:
> > you can not work backwards from a single '100w' to
> > figure out the combination of forward and reflected waves that added up
to
> > give that to you.
>
> As a matter of fact, with the most common of ham radio configurations,
> we can work backwards from a single '100w' to figure out the exact
> combination of forward and reflected waves. That most common of all
> ham radio configurations is a matched system where zero reflected
> power flows back into the transmitter. In an ideal system, if a
> match is achieved at a point, all the voltages and all the currents
> are either in phase or 180 degrees out of phase. Consider:
>
> 100W XMTR---50 ohm coax---+===Some other Z0===
> 100W forward X watts forward
> 0W reflected Y watts reflected
>
> You give me the other Z0, X, and Y and I can tell you all the voltages,
> currents, and phase angles existing at the match point.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>

actually a perfectly 'matched' system is the least common ham configuration.
how often do you actually get to operate on that one frequency where you
have tuned the antenna to exactly 50 ohms(not 45 or 55), and have an exactly
50 ohm line (not 51 or 52, and completely perfect from end to end with no
connector impedance bumps)??? in commercial transmitters you can get much
closer to this ideal where you are designed for a single frequency, but for
hams a mismatch is the way of life.

if you want to analyze ideal systems please proceed, just don't try to
generalize what you think you understand to apply to real systems. Just
because in your 'ideal' system all the currents and voltages are in phase,
don't expect that to be so in a real system.

5318. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 16:00:01 UTC
From: richardharrison@webtv.net
Message-ID: <635-3E073301-69@storefull-2311.public.lawson.webtv.net>
Source record: 128557

david robbins wrote:
"if you want to analyze ideal systems please proceed---."

Analyze which flawed system? there are infinite varieties of flaws. It makes sense to analyze the ideal system, then the flaws that flaws cause.

Best regards, Richard Harrison, KB5WZI

5319. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 16:15:45 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0736B1.6040402@ieee.org>
Source record: 128558

David Robbins wrote:
> actually a perfectly 'matched' system is the least common ham configuration.

The match doesn't have to be perfect, just close enough, i.e. reduce the reflected energy seen by the transmitter to a negligible level. It doesn't have to be a perfect system level match, just a near match at a point close to the transmitter.

> how often do you actually get to operate on that one frequency where you
> have tuned the antenna to exactly 50 ohms(not 45 or 55), and have an exactly
> 50 ohm line (not 51 or 52, and completely perfect from end to end with no
> connector impedance bumps)???

Essentially every time you tune your antenna tuner for zero reflected power back into the transmitter. It's close enough to perfection for human beings.

> in commercial transmitters you can get much
> closer to this ideal where you are designed for a single frequency, but for
> hams a mismatch is the way of life.

We usually eliminate the mismatch at a match point by tuning the reflected power into the transmitter to zero. That's all that matters. I can tell you what happens at the match point. I really don't care about the rest of the system.

If no reflected power is allowed to reach the transmitter, the transmitter impedance really doesn't affect anything at the match point. And whether the load is a resistor or an antenna doesn't affect anything at the match point.

> if you want to analyze ideal systems please proceed, just don't try to
> generalize what you think you understand to apply to real systems. Just
> because in your 'ideal' system all the currents and voltages are in phase,
> don't expect that to be so in a real system.

When the reflected power back to the transmitter reads zero, the values will be close enough to being in phase for amateur work. It is the standard copout to say there's no such thing as 100 volts plus or minus zero volts. Most engineers learn not to argue with the perfection of metaphysicists. If engineers had waited for your kind of perfection, man would never have walked on the moon. Engineers know their models are flawed but they will get close enough to get the job done.
--
cheers, CAM http://www.qsl.net/w5dxp

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5320. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 16:22:18 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E07383A.1040308@ieee.org>
Source record: 128559

Richard Harrison wrote:
> david robbins wrote:
> "if you want to analyze ideal systems please proceed---."
>
> Analyze which flawed system? there are infinite varieties of flaws. It
> makes sense to analyze the ideal system, then the flaws that flaws
> cause.

We have some followers of Plato in our newsgroup. "Reality is unknowable and things are never what they appear to be." (so why bother)? Personally, I prefer Aristotle who said, "A is A". Well, he probably didn't use English but one gets the idea. He said a thing is what it is. It's not something else.
--
cheers, CAM http://www.qsl.net/w5dxp

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5321. Re: Wattmeter Math

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 16:26:50 UTC
From: richardharrison@webtv.net
Message-ID: <5508-3E07394A-607@storefull-2317.public.lawson.webtv.net>
Source record: 128561

Richard Fry wrote:
"We have to stop here because the directivity is specified in terms of voltage, not power."

dB = 10 log P2 / P1

From Ohm`s law:
dB = 20 log E2 / E1

dB = 20 log I2 / I1

etc.

dB doesn`t give a damn about the terms expressing it if the math is correct.

Best regards, Richard Harrison, KB5WZI

5322. CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 16:44:44 UTC
From: rfry@adams.net
Message-ID: <a1430ee.0212230844.47af22f2@posting.google.com>
Source record: 128560

Earlier I wrote:

"With ZERO true reflected power, an inline wattmeter element with its typical directivity spec of 26dB will read about 5 watts of reflected power for every 100 watts of forward power."

On rethinking this, that rate for reflected power is incorrect. My apologies, and my appreciation to all who restrained themselves from calling me on it.

The 26dB directivity under the above conditions would produce a reflected reading on the "wattmeter" scale of 0.25W per 100W of forward power, not 5W per 100W, as pointed out by Richard Harrison.

A "first," perhaps -- someone on this NG admitted a mistake.

But note that this wattmeter does NOT read zero when there is zero true reflected power.

Richard Fry

5323. Re: Inline Wattmeter Accuracy

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 17:01:04 UTC
From: richardharrison@webtv.net
Message-ID: <5508-3E074150-613@storefull-2317.public.lawson.webtv.net>
Source record: 128563

I wrote:
"26 dB of directivity is a plain numerical ratio of about 400."

A participant protested.

You can do the math in your head!

20 dB is a power ratio of 100.

23 dB is a power ratio of 200.

26 dB is a power ratio of 400.

Further, there are no "voltage dB`s" or "power dB`s". There are only dB gains and losses. The same dB expresses separate voltage and power ratios related to the same loss or gain. Just remember that power is proportional to the square of the applied voltage and the square is equivalent to multiplying a log by 2.

Best regards, Richard Harrison, KB5WZI

5324. Re: QSL.NET?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 17:14:07 UTC
From: fractenna@aol.com
Message-ID: <20021223121407.03249.00000553@mb-mq.aol.com>
Source record: 128562

K3TKJ posted on the antenna reflector about two months ago, warning about possible termination if donations didn't meet expenses. Perhaps someone else has more accurate info than I on this.

I believe he also runs qsl.net

73,
Chip N1IR

5325. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 17:18:29 UTC
From: richardharrison@webtv.net
Message-ID: <5508-3E074565-614@storefull-2317.public.lawson.webtv.net>
Source record: 128565

Richard Fry wrote:
"But note that this wattmeter does NOT read zero when there is zero true reflected power."

My Bird wattmeter reads so close to zero reflected power when connected to a Bird dummy load that I can`t see any difference. Maybe my slugs are extra good.

Best regards, Richard Harrison, KB5WZI

5326. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 17:41:53 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <f6ScnWRBwuif1pqjXTWc2Q@crocker.com>
Source record: 128564

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E0736B1.6040402@ieee.org...
> David Robbins wrote:
> > actually a perfectly 'matched' system is the least common ham
configuration.
>
> The match doesn't have to be perfect, just close enough, i.e. reduce the
> reflected energy seen by the transmitter to a negligible level. It doesn't
> have to be a perfect system level match, just a near match at a point
close
> to the transmitter.
>
> > how often do you actually get to operate on that one frequency where you
> > have tuned the antenna to exactly 50 ohms(not 45 or 55), and have an
exactly
> > 50 ohm line (not 51 or 52, and completely perfect from end to end with
no
> > connector impedance bumps)???
>
> Essentially every time you tune your antenna tuner for zero reflected
power
> back into the transmitter. It's close enough to perfection for human
beings.
>
> > in commercial transmitters you can get much
> > closer to this ideal where you are designed for a single frequency, but
for
> > hams a mismatch is the way of life.
>
> We usually eliminate the mismatch at a match point by tuning the reflected
> power into the transmitter to zero. That's all that matters. I can tell
you
> what happens at the match point. I really don't care about the rest of the
> system.

ah, the old 'adjust the tuner to 1:1 and everything is happy' syndrome.
this is the flaw that causes ghosts in video signals as you pointed out in a
previous example. so which way is it, do reflections matter or not? if
not, why can i ignore them in one case and not in another???

>
> If no reflected power is allowed to reach the transmitter, the transmitter
> impedance really doesn't affect anything at the match point. And whether
the
> load is a resistor or an antenna doesn't affect anything at the match

point.
>
> > if you want to analyze ideal systems please proceed, just don't try to
> > generalize what you think you understand to apply to real systems. Just
> > because in your 'ideal' system all the currents and voltages are in
phase,
> > don't expect that to be so in a real system.
>
> When the reflected power back to the transmitter reads zero, the values
> will be close enough to being in phase for amateur work. It is the
standard
> copout to say there's no such thing as 100 volts plus or minus zero volts.
> Most engineers learn not to argue with the perfection of metaphysicists.
> If engineers had waited for your kind of perfection, man would never have
> walked on the moon. Engineers know their models are flawed but they will
> get close enough to get the job done.
> --

Yes, engineers (and yes i are one) do know their models are 'flawed' (i prefer simplified or constrained) and they know those constraints and when they can and can't apply specific models. they also know that they can always apply the complete model that takes into account all the variables when necessary. what is annoying is that some writers have taken some of the simplified models and drawn conclusions from them that aren't necessarily accurate in the cases they try to apply them to. the 'conservation of power law' that you cite is one of them, as i pointed out there are some very specific types of networks and conditions that allows you to derive such a law, but that doesn't mean it can be applied in all cases. and specifically the case of a distributed system(feedlines and antennas are typical distributed systems) is dissallowed by the assumptions made to state the law. then there is the similar confusion about a resistor, the impedance presented by a resistor on the end of a piece of cable, and the characteristic impedance of a cable... while they all may have the same units, and in certain cases they can be mathimatically treated the same, you have to keep in mind which model you are using and under what conditions it is valid. for instance at one point in this discussion i was stating that in steady state conditions you couldn't tell the different between a resistor and a resistor on the end of a 1/2 wave length of cable... then you raised the point about video signals and their reflections, unfortunately video signals do not qualify as steady state as any engineer would know. the engineer would then use a different model that more accurately handled the conditions specified rather than trying to explain a case that the model being used wasn't meant to handle.

all i can say is, its been fun... every now and then i get into one of these discussions just to see what types of misconceptions are growing out there. you should come up to sci.physics.electromag (or is it sci.physics.relativity) where there is an almost identical discussion going on about intersecting light waves and the applicability of the Poynting vector. (the Poyting vector being similar to the power of a wave in the way that it is calculated from the E and B fields of the wave in a way similar

to power being computed from I and V, it looses some information about the wave and can't be just added together willy nilly to show what is happening.)

5327. Re: RFI problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 18:03:42 UTC
From: Allodoxaphobia <nobody@jonz.net>
Message-ID: <slrnb0ejvt.ruk.nobody@animas.frontier.net>
Source record: 128566

On Mon, 23 Dec 2002 02:45:39 GMT, Alex hath writ:
> Todays amplified computer speakers seem to pickup any little bit of rf. I
> can take care of my own with shielding and grounding but everyone else
> around me has computers. Any thoughts about antenna designs that will
> minimize rfi? The real question to debate is which antenna will work best?

Lots of thought-provoking ideas in this thread.
I _do_ remember a QST article from back in the 50's that
recommended a half-wave dipole buried at a depth of 5-10 feet.

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

5328. Re: Inline Wattmeter Accuracy

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 18:29:23 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <7qge0v872v6ue7lq25tikvdnc0jqlvdlfp@4ax.com>
Source record: 128567

On 23 Dec 2002 06:02:03 -0800, rfry@adams.net (Richard Fry) wrote:

>
>The challenge is to be able to attach the calibrated coupler/line
>assembly to the system under test without introducing reflections and
>measurement error in the process.
>
>Richard Fry

and from an earlier posting that heads this thread:
>>Therefore if the true VSWR of a termination is
>>1.03:1 (36dB return loss), the directional coupler needs 46dB directivity to
>>measure it with tolerable(?) error. That is 20dB beyond the spec of the
>>typical inline wattmeter element.

Hi Richard,

Returning to the Bird, and how it responds to these considerations.
The reason why standard field grade watt meters do not have better couplers, is that they have a source of greater error: their connectors.

EVERY Bird wattmeter that came across my bench for calibration suffered from connector erosion that pushed the allowable SWR specification of 1:1.05 and often worse.

There is no justification for building a more precise and directive coupler if your connectors are specified to trash the accuracy.

The Bird is the new-fangled replacement for a lamp-as-load power indicator. The meter takes less power, true, but is hardly more accurate. Richard Harrison has offered that the Bird wattmeter gives the same indication across many benches. True to the essence of its intended use, well evidenced; but again, this says nothing of accuracy.

In the parlance of Metrology there are three distinctions in reporting results: accuracy, resolution, precision. Being precise, means you can hit the same mark to within some margin of reading. Being resolved (typically expressed as having high resolution), means you can express the value of some characteristic out to 8 places such as:
1.00000001 or 0.99999999
Being accurate means knowing how much error is in the entire system.
These three terms are often mixed in discussion, each taking the meaning of another without care.

The simplest trap is found with the common DVM. The accuracy of this device may be ï¿½20% @ 1KHz and yet I am sure folks would think their reading off the speaker at 1.234V was within 1 mV of the real value. The DVM exhibits 0.1% resolution, or the ability to display 200 times more error.

Again, back to Richard Harrison's testimonial and its relation to bench activity. Much of my experience with calibration procedures and tuning instructions goes to measuring relative changes, making acceptance tests and taking few absolute readings. If any absolute power specification or declaration was made, it was typically in the form of: "Power not to exceed ... Watts."

Bench work contains very little resolution, the Bird is sufficient. At the bench, a unit is judged for its service capability, not its olympic caliber output - a peak all time best. The same goes for the class of instrumentation that monitors it.

I would venture that most commercial equipment is specified to something greater than 1dB variation across the spectrum of its production. This is reflected in a service manual adjustments going for an output of 100 to 125 W (or you note you can adjust to either). At the bench, this means one tech can tune and adjust a unit to his 5% reading of 105W; and then hand it to his buddy who adjusts it to his 5% reading of 119W and they would both be specification-on. The Bird is sufficient to this light duty too.

However, given the spec calls for an output of 100 to 125 W; then one of the techs may have opted out for a larger slug (to in fact read that greater than full scale value); a 250W slug that now casts the 125W power reading down into 50ï¿½ of full scale. Error, by specification of meter alone (5%) or 12.5W has doubled the Power determination error to 10%. That second tech, being a good one; realizes the inherent error, and the admonition not to exceed 125W and he thus derates the output to a reading of 112.5W. He can rest assured that with that reading, he is sure to fall between a true 100W and a true 125W. Through the simple change of slugs to conform to common measurements exacted by procedures, we now have the opportunity of having two techs now arrive at the same power determination at distinctly different power levels without any precise idea of what that power is (not part of their job description).

73's
Richard Clark, KB7QHC

5329. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 18:29:23 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E075603.9000605@ieee.org>
Source record: 128568

David Robbins wrote:
> ah, the old 'adjust the tuner to 1:1 and everything is happy' syndrome.
> this is the flaw that causes ghosts in video signals as you pointed out in a
> previous example. so which way is it, do reflections matter or not? if
> not, why can i ignore them in one case and not in another???

Like many other things occurring in engineering math, you can ignore
them if they are negligible or not causing a problem.
--
cheers, CAM http://www.qsl.net/w5dxp

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5330. Re: RFI problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 18:30:09 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E075631.9060503@ieee.org>
Source record: 128420

Allodoxaphobia wrote:
> Lots of thought-provoking ideas in this thread.
> I _do_ remember a QST article from back in the 50's that
> recommended a half-wave dipole buried at a depth of 5-10 feet.

In the April issue, no doubt.
--
cheers, CAM http://www.qsl.net/w5dxp

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5331. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 18:31:27 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <3EIN9.61016$uJ5.5281204@twister.southeast.rr.com>
Source record: 128419

The waves are there, but until the energy meets some resistance, like the floor, they don't build in height. BTW, my surfer buddies and I distinguish between 'ground swells' and 'wind-waves'. I don't suppose there really is much difference except that wind waves are generally short-lived and run along the surface of the ocean. A nice, rideable, ground swell usually develops from storms so far out at sea that often it is difficult to find the origin. A tsunami would be considered a ground swell too. It is interesting that most boaters out at sea don't even realize when a tsunami passes beneath them.

And, you are correct about reflected waves. Where we go to find clean waves is usually behind a point break where the wave refracts around the point, and a smooth, gradual beach where reflected waves are minimized. If you have a high speed connection here's a 20 meg video of a buddy of mine on a trip we took to Baja this summer: http://www.ibscc.org/Clip148.mpg The swell for that week was from a storm that was blowing near ZL land! This point break is famous, albeit a secret. It peels for over two miles around three different points, even though my friend only rode it for 1/2 mile.

Another interesting aspect of waves in the ocean is that several waves can merge and 'sum', creating higher waves.

Alan
WN4HOG
--
Windsurfing Club: http://www.ibscc.org
Homepage: http://pw1.netcom.com/~alannc44/qsl.htm

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message news:3E071A45.9040506@ieee.org...

>
> Is it possible to determine the direction of an ocean wave from a
> single observation of only the height of the wave? Do ocean waves
> exist?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
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5332. Re: Inline Wattmeter Accuracy

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 18:35:03 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <vmle0v0sgakn9jm7lb8hsi4vku4aalvnsa@4ax.com>
Source record: 128421

On Mon, 23 Dec 2002 07:52:00 -0600 (CST), richardharrison@webtv.net
(Richard Harrison) wrote:

>First, 5 watts is 5% of a 100 watt full scale. If that`s the reflected
>power reading into a matched dummy load, a new element may be required
>or you may need to re-zero the indicator meter. It probably reads 5
>watts when out of service.
>

Hi Richard,

This is true of any meter. The hidden killer is that it is also true
for orientation. Put a Bird up high in a vertical position and take
the reading, drop it down low and lay it horizontal for another
reading. Bingo, you probably injected another 5% error with that
simple, everyday demand made on any tech in the field.

The simple fact of the matter is no one in the field makes even 20%
accurate measures, nor is concerned heavily. I would be surprised if
the Field Service manager called an all hands muster because all of
their units were running at 80%.

73's
Richard Clark, KB7QHC

5333. Re: Hi-Q or Hamstick mobile ant ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 18:38:58 UTC
From: fmmck@aol.com
Message-ID: <20021223133858.07982.00000197@mb-mr.aol.com>
Source record: 128422

<<
NB. About Hi-Q, Charlie confirmed me he provides 4 magnets to place
his Hi-Q on a car roof top. >>

Thierry-

I just came across your messages from a week or so back, and wondered how you fared.

From my point of view, your choices should primarily be based on convenience. Yes, there are differences in performance between various antennas, but we're talking only a few DBs, maybe one S-Unit at the most between the best and the worst. I'm sure you realize you won't get half-wave dipole performance from any mobile whip on 75 meters!

I'm using the Hustler with resonators on a triple-magnet mount, on the roof of my Toyota. I have a full set of resonators that I carry in the trunk, and the mast is resonant on Six Meters even with a resonator attached. The Hustler mast folds at about 18 inches when I need to put the car in the garage. With this setup and my IC-706, I've talked from Florida to California on Forty Meters, and to Africa on Ten Meters. Your band conditions may vary.

I agree that the four-magnet mount would be better assuming the same magnet size. I have had the antenna come off under certain conditions, such as the whipping action resulting from turning a corner at too high a speed. Even better would be cutting a hole and mounting the antenna on the fender. You may not like the idea of cutting holes in your car, but the magnets leave permanent rusty spots on the roof and dents result from the antenna whippinig off!

73, Fred, K4DII

5334. Re: Wattmeter Math

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 19:14:03 UTC
From: fmmck@aol.com
Message-ID: <20021223141403.07982.00000199@mb-mr.aol.com>
Source record: 128423

<< No. Anyway 100/400 * 100W = 25W, not 0.25W. >>

Richard-

I know I should keep my nose out of this, but I can't help myself!

That shouldn't be 100W/400 * 100W, which equals 10,000W/400. It should be 100W divided by 400 (100W - 26dB). You can do it with voltage squared divided by 50 ohms, but the results will be the same.

73, Fred, K4DII

5335. Re: RFI problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 19:31:45 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <n2pe0v47ac2v8r8bbi2jjrefl0bitnrf9j@4ax.com>
Source record: 128424

On Sun, 22 Dec 2002 21:33:11 -0600, 'Doc <w5lz@cwis.net> wrote:

>
>
>Alex,
> The problem isn't with the antenna, and you can't 'cure'
>it by changing antennas...
> 'Doc
Think of the problems I'm anticipating going on 2.3 Gig and high power
for EME and fast scan Television.

Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)

5336. Re: Wattmeter Math

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 20:20:32 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E076FD3.70406@attbi.com>
Source record: 128425

The use of dB for voltage or current ratios in the following is incomplete.

dB is ALWAYS a power ratio !!

So, the complete expression for the voltage case is as follows:

db = 10 log ((E2^2/R2)/(E1^2/R1)) !!!!

Now, if, and only IF, R2 = R1 then the equation is:

dB = 10 * log(E2^2/E1^2) = 20 * log (E2/E1).

Let's get real:

dB = 20*log(100/10) does not equal 10*log{{100^2/100}/{10^2/10}}.
The incorrect first answer is 20 dB the correct answer is 10 dB.

Deacon Dave, W1MCE

Richard Harrison wrote:
> Richard Fry wrote:
> "We have to stop here because the directivity is specified in terms of
> voltage, not power."
>
> dB = 10 log P2 / P1
>
> From Ohm`s law:
> dB = 20 log E2 / E1
>
> dB = 20 log I2 / I1
>
> etc.
>
> dB doesn`t give a damn about the terms expressing it if the math is
> correct.
>
> Best regards, Richard Harrison, KB5WZI
>

5337. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 20:32:29 UTC
From: "Alexander S. Wood" <alec_wood@dont.spam.me.ntlworld.com>
Message-ID: <w_KN9.2491$H5.12137@newsfep4-gui.server.ntli.net>
Source record: 128427

"Yuri Blanarovich" <k3bu@aol.com> wrote in message
news:20021222192701.18139.00000340@mb-fc.aol.com...
> tom, KA6RUH wrote:
>
<snip>
> Just ask anyone from the old Soviet block what it means to live in "safe"
> society.
>
> 73 Safe and Merry Christmas!
>
> Yuri

Hey Yuri, you do not need to go the old soviet block to see what happens in a "safe society". Following the authorities inability to follow the rules and guidelines already laid down for firearms licensing in the UK, we had a couple of notorious incidents involving firearms here. Some nutter in the small English town of Hungerford was allowed to amass a arsenal of firearms and decided to wreak havoc amongst the local population. Then another nutter in the small Scottish town of Dunblane takes a couple of automatics to the local school and starts blazing away.

Hungerford resulted in the banning of all semi-automatic weapons (full auto was already illegal here) and Dunblane lead to the ban on all handguns. The common thread between the two is that if the existing law had been followed correctly then neither person would have held anything more dangerous than a pea shooter. The media frenzy and the gun control lobby made sure that this was overlooked however, and rather used it as an excuse to campaign successfully for new tighter laws.

Now the only people with guns are the criminals who now have even more and even bigger guns than they had before. Gun control only hurts the legitimate law-abiding gun owner, it does nothing to deter the criminal or the dishonest. You cannot legislate against nutters who will rampage with whatever they can get their hands on, what's next - ban sticks, knives, cars, gas, lighters, matches..... you never know

From the sublime to the bloody ridiculous. Two burglars break into a farmer's house. He's been burgled loads of times before. Police are no use - he's so remote he never sees one except for his annual firearms inspection. Anyway, he shoots the two burglars with a 12 gauge killing one. Unreasonable force apparently do he's been sent down - for manslaughter I think. Anyway, the other burglar is suing him for "loss of earnings" and because the courts view him to have used unreasonable force, he will win. Absolute madness. It's no wonder burglary has been on the up and up since the war in this country - I bet they would think twice if there was a possibility they'd be

shot!

http://uk.news.yahoo.com/021223/140/dhau1.html

Wishing you all a merry Xmas and a Happy New Year

Alec Wood M1BNK
Teesside UK

5338. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 20:44:48 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <v0ete2soc3dlc4@corp.supernews.com>
Source record: 128426

From you comment, quote: "true reflected power", is there some other kind of
reflected power and if there is can you please explin it?
tnx
hank wd5jfr
In Tulsa where it's still snowing and we got 4 inches in the last 2 hours
"Richard Fry" <rfry@adams.net> wrote in message
news:a1430ee.0212230844.47af22f2@posting.google.com...
> Earlier I wrote:
>
> "With ZERO true reflected power, an inline wattmeter element with its
> typical directivity spec of 26dB will read about 5 watts of reflected
> power for every 100 watts of forward power."
>
> On rethinking this, that rate for reflected power is incorrect. My
> apologies, and my appreciation to all who restrained themselves from
> calling me on it.
>
> The 26dB directivity under the above conditions would produce a
> reflected reading on the "wattmeter" scale of 0.25W per 100W of
> forward power, not 5W per 100W, as pointed out by Richard Harrison.
>
> A "first," perhaps -- someone on this NG admitted a mistake.
>
> But note that this wattmeter does NOT read zero when there is zero
> true reflected power.
>
> Richard Fry

5339. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 20:48:14 UTC
From: "Alexander S. Wood" <alec_wood@dont.spam.me.ntlworld.com>
Message-ID: <I_KN9.2492$H5.12137@newsfep4-gui.server.ntli.net>
Source record: 128428

"David Robbins" <k1ttt@arrl.net> wrote in message
news:f6ScnWRBwuif1pqjXTWc2Q@crocker.com...
>
<snip>
> ah, the old 'adjust the tuner to 1:1 and everything is happy' syndrome.
> this is the flaw that causes ghosts in video signals as you pointed out in
a
> previous example. so which way is it, do reflections matter or not? if
> not, why can i ignore them in one case and not in another???
>
> >
<snip>

Surely the definite answer to whether or not a reflection can be ignored comes by asking the question "Is it causing a problem in this application?". Engineering is about solving problems. Leave the solving of non-problems to philosophers and politicians.

Alec M1BNK
Teesside UK

5340. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 21:17:07 UTC
From: dennis@wawa.juniper.net
Message-ID: <au7ugj$141n$1@heap.juniper.net>
Source record: 128429

Peter O. Brackett <ab4bc@ix.netcom.com> wrote:
>As an adult, I have been lucky enough to travel the world. I have visited
>beaches on the Atlantic coast of North and South America, the Atlantic
>coast of Europe and Africa, the Pacific coast of North America, the Pacific
>coast of China and Japan, and both ends of the Meditereanean. I duly
>noted that the waves always seem to be moving towards the shorline.

Many times I've been to a small bay surrounded by cliffs, on the California coast between Half Moon Bay and Santa Cruz, which when there is a storm off-shore will develop standing waves which don't seem to move anywhere. How does that happen?

>Is it possible to determine the direction of a wave from
>a single observation of both current I and voltage V at a single
>point/plane on a transmission line?

Of course, if you also know the characteristic impedance of the transmission line.

The V and I of a wave passing that point on the transmission line will be related such that V/I will be equal to the (normally purely resistive) characteristic impedance of the transmission line. If the value of V/I you compute from your measured V and I is real and equal in magnitude to the characteristic impedance of the line, then the sign (i.e. the phase, either 0 degrees or 180 degrees) tells you the direction the wave is going.

If V/I has an imaginary component (i.e. their relative phase is not 0 degrees or 180 degrees), or if its magnitude is not equal to the characteristic impedance, then the only way the measurement can be consistent with waves moving at the characterstic impedance of the transmission line is if what you are measuring is the superposition of two waves, one (say V+ and I+) travelling in one direction on the line and the other (say V- and I-) travelling in the other, where V+/I+ and V-/I- are each individually equal to the characteristic impedance of the transmission line. Relating this to the measured V and I, on a 50 ohm transmission line for example, gives

V = V+ + V-
I = I+ + I-
V+/I+ = 50 (or 50 @ 0 degrees)
V-/I- = -50 (or 50 @ 180 degrees)

That is 4 independent equations, which can be solved for the 4 unknowns, so the single measurement of V and I plus the line's characteristic impedance gives you the amplitude and relative phase of the waves going in each direction.

I personally think all the confusion here comes not from waves themselves, but with the notion that there is a "reflection coefficient" at each impedance discontinuity having a magnitude which depends solely on the transmission line characteristic impedances on each side of the discontinuity. I think a better (i.e. closer to reality) way to look at it is that the reflection coefficient for a wave approaching a transmission line impedance discontinuity is a function of both the transmission line impedances and the amplitude and phase of the wave approaching the discontinuity from the other direction, with the reflection coefficient computed based on transmission line impedances alone being a special case which only applies when no wave is approaching the discontinuity from the other direction. For the current problem we would then just be able to say that the reflection coefficient at steady state for a wave approaching the junction of the 50 ohm and 450 ohm transmission lines from the 50 ohm side is 0, and from the 450 ohm side is 1 (or -1?), and we would need to introduce neither magic addition for scalar power nor mystical "destructive interference" which makes power disappear at one spot and pop out at another. Both of the latter only exist to try to make the result consistent with the "reflection coefficient" of 0.8 which is computed from the transmission line impedances alone, and the magic devices wouldn't be required if we just concluded that the computation which produced 0.8 didn't apply at a junction with waves approaching from both directions.

Dennis Ferguson

5341. Re: Vs: Insulated Wire Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 21:29:31 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <au7v7q$q5i$1@venus.btinternet.com>
Source record: 128430

Nobody bothered to mention what was the conductor diameter, the diameter over the insulation, the type of insulation, permittivity, and the diameter of the bare wire which replaced it. All essential factors in such experiments.

Or how careful lengths were measured. And were there other factors which changed when the type of wire was changed. A different SWR meter? A change in the length or impedance of feedline? It is fatal to determine antenna resonant frequencies using SWR meters. Especially when only small shifts are expected.

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

==========

"Yuri Blanarovich" <k3bu@aol.com> wrote > >
> >Reg may be right about the efficiency of non-resonant antennas - as long as
> >they are _dipoles_ or Hertz-type antennas. Neglecting to consider wire
> >insulation in _parasitic_ element antennas will most likely throw element
> >resonances out of the band with disastrous results in both F/B and SWR.
> >
> >Antti, OH2DT
>
> Bingo, Amen!
>
> Reg, G4FGQ writes:
> >Don't let the old-wives and magazine article writers frighten you. Ignore
> >such malicious rumours. ;o)
>
> Reg,
> have you ever built and compared say Quad with bare and insulated wire? I did,
> when calculated dimensions for 10m 3 el. quad using bare wire (EZNEC does not
> consider insulated wire inclusion) and built elements with insulated electrical
> wire, the Quad ended up right in the middle of CB band. It sure makes big
> difference when building resonant elements out of wire.
>

> Looks to me that for now we can design the antenna in the software using
bare
> wire, then adjust the elements by the shortening factor. This can be found
out
> by constructing one element out of wire intended for use and comparing its
> measured resonant frequency to calculated one. Again, close approximation
for
> PVC house wiring is about 5%.
>
> Nice feature of modeling software is that allows us to determine the
resonant
> frequency of the element when taken out of the antenna and then to match
it
> while building the element (out of the antenna) for precise replication of
the
> design.
>
> Maybe "old-wives" that EXPERIENCED the stuff know more than those that
"figured
> it out"?
>
> 73 Yuri

5342. Re: Insulated Wire Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 21:39:10 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <au7vpu$b01$1@knossos.btinternet.com>
Source record: 128431

> Building my first quad in 1965 I used loop dimensions given in the ARRL
> Handbook for _bare copper wire_. Ignorant of the difference at the time,
> I used plastic insulated wire. The quad didn't work at all - it had little
> or no
> directivity and a terrible SWR throughout the band.
>
> One week and a lot of tuning later I had shortened the loops approx. by
one
> meter, ie. 5 %. Front-to-back was a respectable 25 dB and SWR was 1.

==========

How do you know the apparent mistuning was due to use of plastic insulated
wire ?

Reg, G4FGQ

5343. Re: Suppressing RF on the Shield

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 22:16:03 UTC
From: "r.dring" <r.dring@ntlworld.com>
Message-ID: <0WLN9.2009$yS6.297661@newsfep1-win.server.ntli.net>
Source record: 128432

Hello Mike, You can use a bazooker, that is a length of copper tube 1/4 wave long slid over the feeder.
It is bonded to the feeder at the remote(lower) end, and insulated at the termination end where it connects to the antenna.
You did not say what frequency, if tube is too long use braid removed from coax, it can be slid over and cut to length in situ.
Regards Ray G0BXG
"Mike" <scifiguy at starband dot net> wrote in message news:k3ovvu0tkrk0bo5g73s9qh6aphngu0qo2a@4ax.com...
> I have been trying to find a low cost solution to RF on coax shield.
> Specifically, I'd like to prevent the shield from looking like a
> radial at the feedpoint of the antenna. Since I'm using LMR600 (solid
> core), coiling the coax to make a choke is not an option (too stiff).
> The cable is also too thick for any but the most expensive (and hard
> to find) large ferrite beads. Using a huge stack of ferrite cores
> would work, but the cost adds up fast. Is there any negative effect
> to simply inserting a ferrite core choke between the coax shield and
> the radial attachment point? This simple solution is curiously
> missing from the ARRL Handbook, and I'm not sure why, unless it causes
> a problem somehow.
>
> Thanks.
>
> --Mike
>
>
> ------------== Posted via Newsfeed.Com - Uncensored Usenet News ==----------
> http://www.newsfeed.com The #1 Newsgroup Service in the World!
> -----= Over 100,000 Newsgroups - Unlimited Fast Downloads - 19 Servers =-----

5344. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 22:19:59 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <j_LN9.62423$uJ5.5326872@twister.southeast.rr.com>
Source record: 128433

Dennis,

Regarding "standing waves", as a surfer/windsurfer I can tell you there are three things that could be happening: 1) a stiff offshore wind, as often happens at various points along California, will hold up the wave face slightly 2) there's a rip current travelling opposite the direction the wave (usually more common on the East Coast due to weird sand bars and channels) 3) A fast moving swell hits resistance along the bottom the actual speed slows down. The energy of a wave in water is circular. When the floor of the ocean interrupts the circular movement, the wave pitches and consequently breaks over itself.

Here's a shot my girlfriend took of me at a point break in San Simeon (yes, I trespassed on Hearst property this summer) http://www.ibscc.org/cali.htm This spot is a favorite for the reasons above. The wave 'walls' up and holds position long enough for us to play on its face without fear of getting overtaken.

If you're familiar with The Columbia River in Oregon in summer, you'll know exactly what I mean about the current flowing opposite the waves... There the river flows approx 10 miles/hour while the waves might travel 15-20 mph against it. From the shore it looks like the waves move very slowly up river

Alan
WN4HOG

--
Windsurfing Club: http://www.ibscc.org

"Dennis Ferguson" <dennis@wawa.juniper.net> wrote in message news:au7ugj$141n$1@heap.juniper.net...
> Peter O. Brackett <ab4bc@ix.netcom.com> wrote:
> >As an adult, I have been lucky enough to travel the world. I have visited
> >beaches on the Atlantic coast of North and South America, the Atlantic
> >coast of Europe and Africa, the Pacific coast of North America, the Pacific
> >coast of China and Japan, and both ends of the Meditereanean. I duly
> >noted that the waves always seem to be moving towards the shorline.
>
> Many times I've been to a small bay surrounded by cliffs, on the California
> coast between Half Moon Bay and Santa Cruz, which when there is a storm
> off-shore will develop standing waves which don't seem to move anywhere.
> How does that happen?
>

> >Is it possible to determine the direction of a wave from
> >a single observation of both current I and voltage V at a single
> >point/plane on a transmission line?
>
> Of course, if you also know the characteristic impedance of the
transmission
> line.
>
> The V and I of a wave passing that point on the transmission line will
> be related such that V/I will be equal to the (normally purely resistive)
> characteristic impedance of the transmission line. If the value of V/I
you
> compute from your measured V and I is real and equal in magnitude to the
> characteristic impedance of the line, then the sign (i.e. the phase,
either
> 0 degrees or 180 degrees) tells you the direction the wave is going.
>
> If V/I has an imaginary component (i.e. their relative phase is not 0
degrees
> or 180 degrees), or if its magnitude is not equal to the characteristic
> impedance, then the only way the measurement can be consistent with waves
> moving at the characterstic impedance of the transmission line is if what
> you are measuring is the superposition of two waves, one (say V+ and I+)
> travelling in one direction on the line and the other (say V- and I-)
> travelling in the other, where V+/I+ and V-/I- are each individually
> equal to the characteristic impedance of the transmission line. Relating
> this to the measured V and I, on a 50 ohm transmission line for example,
> gives
>
> V = V+ + V-
> I = I+ + I-
> V+/I+ = 50 (or 50 @ 0 degrees)
> V-/I- = -50 (or 50 @ 180 degrees)
>
> That is 4 independent equations, which can be solved for the 4 unknowns,
> so the single measurement of V and I plus the line's characteristic
> impedance gives you the amplitude and relative phase of the waves going
> in each direction.
>
> I personally think all the confusion here comes not from waves themselves,
> but with the notion that there is a "reflection coefficient" at each
impedance
> discontinuity having a magnitude which depends solely on the transmission
> line characteristic impedances on each side of the discontinuity. I think
a
> better (i.e. closer to reality) way to look at it is that the reflection
> coefficient for a wave approaching a transmission line impedance
discontinuity
> is a function of both the transmission line impedances and the amplitude
> and phase of the wave approaching the discontinuity from the other

direction,
> with the reflection coefficient computed based on transmission line
impedances
> alone being a special case which only applies when no wave is approaching
> the discontinuity from the other direction. For the current problem we
would
> then just be able to say that the reflection coefficient at steady state
for
> a wave approaching the junction of the 50 ohm and 450 ohm transmission
lines
> from the 50 ohm side is 0, and from the 450 ohm side is 1 (or -1?), and we
> would need to introduce neither magic addition for scalar power nor
mystical
> "destructive interference" which makes power disappear at one spot and
> pop out at another. Both of the latter only exist to try to make the
result
> consistent with the "reflection coefficient" of 0.8 which is computed
> from the transmission line impedances alone, and the magic devices
> wouldn't be required if we just concluded that the computation which
> produced 0.8 didn't apply at a junction with waves approaching from
> both directions.
>
> Dennis Ferguson

5345. Re: FM Reception

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 22:25:15 UTC
From: "r.dring" <r.dring@ntlworld.com>
Message-ID: <G2MN9.2047$yS6.300531@newsfep1-win.server.ntli.net>
Source record: 128434

Do you have any walls that line up with the wanted stations or are
broadside on to them.
I have seen either yagis, or co-phased dipoles, stuck to walls or doors.They
were made out of alumium cooking foil or burglar alarm aluminium tape that
you stick on windows.
After you have the thing working you wallpaper over it
"Bill" <wgtp1@rcn.com> wrote in message
news:atq576$72k$1@bob.news.rcn.net...
> I live in a high rise co-op just outside NYC & am having a hard time
getting
> FM recption any ideas?...I face east away from the city.....Thanx
>
>
>
>

5346. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 22:46:10 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E079232.9010403@ieee.org>
Source record: 128435

Alexander S. Wood wrote:
> Now the only people with guns are the criminals who now have even more and
> even bigger guns than they had before.

Well, if one is a criminal anyway, might as well break the law with a full automatic rifle rather than a six-shooter revolver. I've been told there are no more Bobbies on bicycles patrolling the streets because they are too afraid of the criminals. If an armed Bobbie is afraid of the criminals, what about an unarmed citizen? It appears that gun prohibition is working in England just about as well as alcohol prohibition worked here in the USA.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5347. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 23:20:09 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <wSMN9.7$Eh.3640@newsfeed.slurp.net>
Source record: 128436

RE: Below

My usage was to differentiate the true, or real power from inaccurate measurements of it -- which measurements often are accepted as the true value.

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote
> From you comment, quote: "true reflected power", is there
> some other kind of reflected power and if there is can you
> please explin it?

5348. Re: Inline Wattmeter Accuracy

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 23:33:38 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <93NN9.12$Eh.6214@newsfeed.slurp.net>
Source record: 128437

"Richard Clark" <kb7qhc@attbi.com> wrote
> Returning to the Bird, and how it responds to these considerations.
> The reason why standard field grade watt meters do not have better
> couplers, is that they have a source of greater error: their
> connectors. (etc)

Except that Bird makes high-power directional wattmeters with element assemblies built on EIA rigid line sections. At least THOSE would not need to be that limited by their connector performance.

Richard Fry

5349. Re: AC PF & SWR ??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 23:45:08 UTC
From: jder8745@aol.com
Message-ID: <20021223184508.01846.00000264@mb-fq.aol.com>
Source record: 128438

...I read here...

"Can V and I get out of phase on a line and if so what is cause and consequence and how do you know?"
============

If one is talking about the traveling V and and I waves as opposed to the standing V and I, there will indeed be a non unity power factor (phase angle > 0) if the charateristic impedance of the line has an imaginary conponent, i.e., is not real.

For RF lines the Zo is so close to being real that V and I will indeed be in phase and the p.f. is .999999999...

73 de Jack, K9CUN

5350. Re: Reflected Pwr at Tx

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-23 23:55:07 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E07A21B.5070705@attbi.com>
Source record: 128439

Well a 3:1 VSWR produces a decrease in received signal of about -1.25 dB. This is non noticeable in all but weak signal work. So for HF a 3:1 VSWR is a non issue relative to two way path loss [ability to communicate]. So I don't have to do anything regarding path loss.

Now a 3:1 VSWR is excessive for my IC-746 and it will initiate a reduction in output power to protect the 746 from damage. So, if I want full output from the 746 I have to do something to reduce the feedpoint VSWR.

Also, a 3:1 VSWR on 80 CW with my tuner and balanced line to a center fed doublet will cause my tuner to arc over at power levels above 800 watts output. That's not very kind to my 3-500's. So, I have to do something to protect my 3-500's.

Based on my history, a 25% reflected power is a non issue for communications purposes; but it causes a systems problem regarding wear and tear on my station equipment.

I thank Mr. McCoy for the design of the Ultimate Transmatch made by Murch Electronics that I use to achieve a conjugate match for my 746 and/or amplifier and center fed doublet. It is the 'SOMETHING" I use to solve any VSWR 'problems' [sorry, reflected power problems] I may have.

I do not have a 'reflected power' problem on any frequency between 13.5 and 33 MHz. My antenna has almost 6 dBd gain across all frequencies in that range and exhibits a maximum VSWR of 1.6:1 across all frequencies in that range. The nominal VSWR is 1.3:1 to 1.4:1.

Deacon Dave, W1MCE [for almost 50 years]
==========

Alexander S. Wood wrote:
> "David Robbins" <k1ttt@arrl.net> wrote in message
> news:f6ScnWRBwuif1pqjXTWc2Q@crocker.com...
>
snip
>
> Surely the definite answer to whether or not a reflection can be ignored
> comes by asking the question "Is it causing a problem in this application?".
> Engineering is about solving problems. Leave the solving of non-problems to
> philosophers and politicians.
>
> Alec M1BNK
> Teesside UK
>

>

5351. Re: MFJ Apt. 2meter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 01:12:19 UTC
From: Richard Velez <RickieV@hotmail.com>
Message-ID: <au8c6u$5friu$1@ID-89515.news.dfncis.de>
Source record: 128440

J-Pole is the way to go. I'm using a HTX-202 handheld with a j-pole ant outside my windows and I'm hitting repeaters that are about 25 miles away. If I had it on the roof, I might do better.

But, a J-Pole is cheap and awesome in service.

Rickie

"Barry Keippel" <bkeippel@excel.net> wrote in message news:v0a524f453n2c6@corp.supernews.com...
> Does anyone know anything about MFJ's apartment antenna? It says it attaches
> to window sills and covers 10m to 40m plus 2 and 6 meters by changing coils.
> What it doesn't tell you is what kind of gain this thing has and what kind
> of pattern it has. Does anyone have this antenna or know how good it works?
> KA9MAT Barry
>
>

5352. Re: RFI problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 01:24:57 UTC
From: Dan/W4NTI <w4nti@NOSPAMmindspring.com>
Message-ID: <au8d11pqt1@slb9.atl.mindspring.net>
Source record: 128441

I found the only way to cure the problem is to move into a neighborhood that has no computers...hi.

The speakers sold are trash. For some reason I have some that DO NOT GET BLASTED. And I run them right in the shack on my puter. The name on them is JUSTer Multimedia...AC691N is the model number. Got them years ago on a Prokek computer.

Two years later we bought another Protek for the wife. Her speakers get blasted all to pieces. She just turns them off.

No problem until the neighbor across the way got a puter...you guessed it...blasted the speakers.. I tried it all...bypass, beads, moving wires. etc. I finally switched speakers with him and for 2 years it was no sweat. He then decided to sell his house. So I bought it to keep another computer out of my RF field....grin. I did buy the house tho.
"Alex" <alex.draper1@rogers.com> wrote in message
news:nNuN9.43155$F2h1.7737@news01.bloor.is.net.cable.rogers.com...
> Todays amplified computer speakers seem to pickup any little bit of rf. I
> can take care of my own with shielding and grounding but everyone else
> around me has computers. Any thoughts about antenna designs that will
> minimize rfi? The real question to debate is which antenna will work
best?
>
>

5353. Re: Wattmeter Math

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 01:34:42 UTC
From: JohnB <john.g8ozh@freeuk.co.uk>
Message-ID: <1040693589.44943.0@doris.uk.clara.net>
Source record: 128442

Eh?
"Dave Shrader" <david.shrader@attbi.com> wrote in message
news:3E076FD3.70406@attbi.com...
> The use of dB for voltage or current ratios in the following is
incomplete.
>
> dB is ALWAYS a power ratio !!
>
> So, the complete expression for the voltage case is as follows:
>
> db = 10 log ((E2^2/R2)/(E1^2/R1)) !!!!
>
> Now, if, and only IF, R2 = R1 then the equation is:
>
> dB = 10 * log(E2^2/E1^2) = 20 * log (E2/E1).
>
> Let's get real:
>
> dB = 20*log(100/10) does not equal 10*log{{100^2/100}/{10^2/10}}.
> The incorrect first answer is 20 dB the correct answer is 10 dB.
>
> Deacon Dave, W1MCE
>
>
>
> Richard Harrison wrote:
> > Richard Fry wrote:
> > "We have to stop here because the directivity is specified in terms of
> > voltage, not power."
> >
> > dB = 10 log P2 / P1
> >
> > From Ohm`s law:
> > dB = 20 log E2 / E1
> >
> > dB = 20 log I2 / I1
> >
> > etc.
> >
> > dB doesn`t give a damn about the terms expressing it if the math is
> > correct.
> >
> > Best regards, Richard Harrison, KB5WZI
> >

>

5354. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 02:06:06 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <kkZN9.76509$0v3.175@news.bellsouth.net>
Source record: 128460

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E079232.9010403@ieee.org...
> Alexander S. Wood wrote:
> > Now the only people with guns are the criminals who now have even more
and
> > even bigger guns than they had before.
>
> Well, if one is a criminal anyway, might as well break the law with a full
> automatic rifle rather than a six-shooter revolver. I've been told there
are
> no more Bobbies on bicycles patrolling the streets because they are too
> afraid of the criminals. If an armed Bobbie is afraid of the criminals,
what
> about an unarmed citizen? It appears that gun prohibition is working in
> England just about as well as alcohol prohibition worked here in the USA.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
And as good as gun prohibition would work in the USA-NA.

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

5355. Re: MFJ Apt. 2meter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 02:10:07 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <okZN9.76512$0v3.69922@news.bellsouth.net>
Source record: 128461

"Richard Velez" <RickieV@hotmail.com> wrote in message
news:au8c6u$5friu$1@ID-89515.news.dfncis.de...
> J-Pole is the way to go. I'm using a HTX-202 handheld with a j-pole ant
> outside my windows and I'm hitting repeaters that are about 25 miles away.
> If I had it on the roof, I might do better.
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> But, a J-Pole is cheap and awesome in service.
>
> Rickie
>
> "Barry Keippel" <bkeippel@excel.net> wrote in message
> news:v0a524f453n2c6@corp.supernews.com...
> > Does anyone know anything about MFJ's apartment antenna? It says it
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> > to window sills and covers 10m to 40m plus 2 and 6 meters by changing
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> > What it doesn't tell you is what kind of gain this thing has and what
kind
> > of pattern it has. Does anyone have this antenna or know how good it
> works?
> > KA9MAT Barry
> >
I use a twinlead J-Pole at about 30 feet, in a pvc pipe atop the TV antenna.
Hit repeaters 60 miles or so away. of course, I'm using a 25 watt rig.

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

5356. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 02:14:41 UTC
From: dennis@wawa.juniper.net
Message-ID: <au8fuh$23l6$1@heap.juniper.net>
Source record: 128443

OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>Einstein envisioned himself riding waves of light on his way to his
>theory of relativity. It's a very useful concept. When one rides the
>crest of a wave traveling at the speed of light, one has all the time
>in the world to think about it since one's wristwatch is not ticking
>at all.

I recall Einstein thinking about riding on trains a lot, but I
don't recall where he thinks about riding on light. In any case,
if you managed to do this you certainly wouldn't be carrying a
lot of mass along with you to think with, since the general theory
says that to do that with mass you'd need to apply infinite
energy, and infinite energy isn't available even in theory.

> Let's ride the forward wave from the transmitter to the load
>in the following example and see for ourselves what happens.
>
>100W 50 ohm XMTR--coax--+===1/2WL 450 ohm ladder-line===50 ohm resistor
>
>We emerge from the XMTR riding the wave in a 50 ohm environment.
>Our wave is 70.7V at 1.414A in phase. We might be headed for a 50
>ohm load. But we look ahead and see an impedance discontinuity. It
>is a step function from our 50 ohm environment to a 450 ohm environment.
>We are pretty savvy about such things and brace ourselves for a
>reflection of 64% of our power. We sure don't see 50 ohms. What we
>see is a bunch of interacting waves.
>
>SWR = 450/50 = 9:1, Rho = (SWR-1)/(SWR+1) = 0.8, Rho^2=0.64 or 64%
>
>As we get closer to the impedance discontinuity, we realize that we
>have already achieved steady-state conditions and a large destructive
>interference process is in progress which tells us there is an impedance
>match happening at the impedance discontinuity.

I don't see how you could know any of this from your point of view on
the wave.

First, you are already approaching the impedance discontinuity at the
speed of light so I don't know how you could "see" it ahead. At the
speed of light there is no way to get information about what is ahead
of you any sooner than you, yourself, will get there. All you'll be
able to observe from the 50 ohm side of the impedance discontinuity
is the 50 ohm wave you are riding on and, perhaps, whatever energy
is headed in the other direction on the transmission line at the point
you are at.

For the other direction, however, you suggest you can see "a destructive interference process" going on over there. I'd like to know exactly what is it this looks like? How did you recognize it? As far as I can tell this process involves no net energy, and because of this it cannot be observed. That is, "a destructive interference process" is indistinguishable from nothing at all, so I think it is a lot simpler to just refer to it as "nothing at all".

So what you are really seeing from your wave on the 50 ohm side of the discontinuity is the 50 ohm wave you are riding in the forward direction, and nothing at all going in the other direction. You ride along, blissfully ignorant of what is to come until, bang, you zip past the discontinuity and suddenly find yourself riding a 450 ohm wave, with another 450 ohm wave going past you in the other direction, but with all the energy your wave had on the other side of the discontinuity making it to this side. You couldn't tell anything before you got there, though after the fact you can observe that something happened to the impedance, but that 100% of the energy in your wave made it across the impedance boundary and 0% got reflected.

Note, however, that the 64% number appears no where in your observations. There is just no 64% number involved anywhere you can see, whatever happened here had nothing to do with 64% of anything at all. Now at this point you might be tempted to complain that, since you observed the transmission impedance on the 50 ohm side and can see it now on the 450 ohm side, that 64% "should have been" involved somewhere even if you couldn't see it. I don't think this is relavent to much either, however, since you wouldn't be aware of even the numbers from which to compute 64% if you'd picked another wave to ride.

In particular, if the wave you were riding were instead the reverse-travelling wave on the 450 ohm line, you'd see even less. On the way towards the 50 ohm junction you'd be able to see the 450 ohm wave you were riding, and a bigger wave going in the other direction, until you get to the impedance discontinuity where, bang, 100% of the energy in your wave turns around and heads back where it came from and 0% makes it past the discontinuity. So, on this wave, not only do we find that the 64% can't be observed anywhere but that, since none of our energy made it past the discontinuity, we can't possibly know what was on the other side so we can't even compute that 64% "should have been" involved. All we know is that 100% of our energy was reflected and 0% made it past.

Now I'll just point out that your unobservable, mythical "destructive interference process" is just as dubious as Steve's magical vector addition of scalar powers, and that both of these are being introduced for precisely one purpose: to somehow make the results consistent with the 64% number, or the +/- 0.8 reflection coefficients, you compute for the impedance discontinuity based on the transmission line characteristic impedances alone. If you didn't attempt to make use of the +/- 0.8 number (which can't be observed anywhere

in the end result, the end result has a reflection coefficient of
0 in one direction and -1 in the other) in the first place neither
of you would need to introduce these odd devices, that do nothing
to help actually solve the problem, to show that 0.8 is there even
though you can't see it.

So to eliminate the need for either of these extra devices used
to work 64% into there (and in doing so to apply Occam's Razor), I
think the simplest view is that the reflection coefficient for
one side of an impedance discontinuity is always a function of the
two respective characteristic transmission line impedances *and* the
relative amplitude and phase of any wave approaching the discontinuity
from the other side. That is, you can't compute a reflection coefficient
unless you know all of these things. This means that the reflection
coefficient you compute based solely on the impedances is actually
a special case that only applies when you know the wave approaching
the discontinuity from the other side has zero amplitude, and
applies not at all in any other case, like the 50/450 ohm discontinuity
in your case where you have waves approaching in both directions.

Now that we know that the reflection coefficient is not +/- 0.8
for the impedance discontinuity in your problem, we won't compute
0.8 but instead can just compute what the reflection coefficients
really are for each direction. In this case `rho' is 0 in the
forward direction on the 50 ohm line and is -1 in the reverse direction
on the 450 ohm line, and the lack of any detectable waves on the
reverse direction on the 50 ohm line is due to the fact that, with
no reflection of the 50 ohm forward wave and no transmission of
the 450 ohm reverse wave, no waves ever make it to the reverse
direction on the 50 ohm transmission line in the first place. With
no waves over there in the first place you then don't need to make up
wierd mechanisms or odd math to explain where the waves went, and life
is simple.

Dennis Ferguson

5357. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 02:54:14 UTC
From: tdonaly@aol.com
Message-ID: <20021223215414.01825.00000155@mb-fx.aol.com>
Source record: 128444

Dennis Ferguson wrote,
>
>OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>Einstein envisioned himself riding waves of light on his way to his
>>theory of relativity. It's a very useful concept. When one rides the
>>crest of a wave traveling at the speed of light, one has all the time
>>in the world to think about it since one's wristwatch is not ticking
>>at all.
>
>I recall Einstein thinking about riding on trains a lot, but I
>don't recall where he thinks about riding on light. In any case,
>if you managed to do this you certainly wouldn't be carrying a
>lot of mass along with you to think with, since the general theory
>says that to do that with mass you'd need to apply infinite
>energy, and infinite energy isn't available even in theory.
>
>> Let's ride the forward wave from the transmitter to the load
>>in the following example and see for ourselves what happens.
>>
>>100W 50 ohm XMTR--coax--+===1/2WL 450 ohm ladder-line===50 ohm resistor
>>
>>We emerge from the XMTR riding the wave in a 50 ohm environment.
>
(The rest deleted.)

Now I know why they invented mathematics.
73,
Tom Donaly, KA6RUH

5358. Insulated Antenna Wires and Californian Grapes.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 02:56:45 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <au8idc$ir6$1@sparta.btinternet.com>
Source record: 128445

The efffect of an insulated covering of an antenna wire is to increase its capacitance per unit length. It has no effect on inductance per unit length. So the result is a decrease in propagation velocity along the wire relative to that of light. As with any other transmission line, as Terman probably agrees, the velocity decreases according to the square root of the increase in capacitance. There are no other significant effects.

The problem is to determine the increase in capacitance over that of a bare wire due to an insulating marerial of given thickness of given permittivity. Clearly the capacitance of the bare wire to its surroundings must be taken into account and this can be estimated from a sensible model. Models will vary. As I have been unable to re-discover my ancient notes I have spent the last three hours going back to square one fortified by 3/4's of a bottle of Californian medium white whine from Ernest & Gallo's celebrated cellars, dated 2001.

Let's take as an example the North American most popular antenna - a 40m band 1/2-wave dipole at a height of 1/4-wavelength above ground. This may be considered as a worst-case model.

After much ball-point and paper tt turns out that the ratio of antenna capacitance, with and without wire insulation, is given by -

K*Ln(4*H/d) divided by -

K*Ln(4*H/D) + Ln(D/d),

where H = antenna height above ground,

d = wire diameter,

D = diameter over wire insulation,

K = permittivity of insulating material,

Logs to base e.

For PVC, permittivity is in the same ballpark as 4.

Let H = 33 feet, Wire diameter = 18swg, Diameter over wire insulation = twice wire diameter, Insulation = PVC.

RESULT: To maintain the same dipole resonant frequency after insulating the wire, cut off 10 inches from the ends. which is less than the value of the "end effect" which people take notice of only because of the importance attached to it in the handbooks.

If an insulated wire is replaced, as would normally be done, by a bare wire of greater (copper) diameter the difference in resonant lengths would be

even smaller.

With enamel insulated wire (for weather protection - it really works!) the
resonant length is completely unaffected.

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

5359. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 03:24:18 UTC
From: Zoran Brlecic <WA7AA@attbi.com>
Message-ID: <3E07D355.9010508@attbi.com>
Source record: 128446

OC_CAM's Razor wrote:
> It appears that gun prohibition is working in
> England just about as well as alcohol prohibition worked here in the USA.

But not the narcotics prohibition? That one works like a charm...

WA7AA

5360. Re: Inexpensive 1/4 wave magmounts?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 03:44:20 UTC
From: emergencyradioserv@yahoo.com
Message-ID: <46060eb3.0212231944.688b31b@posting.google.com>
Source record: 128447

'Doc <w5lz@cwis.net> wrote in message news:<3E06560D.71524751@cwis.net>...
> Bob,
> Sounds like your 'crime watch' group is going well
> beyond it's 'normal' duties. "Short range comms" implies
> mobility, and that implies that the 'watchers' are going
> looking for 'crime'. I seriously doubt if your local
> police department would advocate or condone such, since
> it is the police department's job to do that. 'Crime
> watchers' just report suspicious activity, they don't
> go looking for it.
> 'Doc

Nothing could be further from the truth! They do have "window watcher" members in this group but in fact, most law enforcement sanctioned crime watch groups recommend that their patrols use two-way radios. Whether or not cell phone service is available (its not reliable in this rural area), it is always useful to have comms for the patrols. This group is mobile and is patrolling neighborhoods to "OBSERVE AND REPORT" suspicious and criminal activity to the police. The patrols even have amber rotating beacon light on the roof of the vehicle to identify themselves as the watch patrol. (They also patrol on foot an bike using HTs)

You have a very narrow view of what crime watch groups do. They DO go out looking for it in neighborhoods. In fact, its been proven that having patrols looking for activity actually helps to deter criminal activity. They just don't engage suspects or pretend to have police powers. Believe me, law enforcement appreciates the extra sets of eyes - especially if they are mobile!

BTW, the local law enforcement officer that is the liaison to the group wants to install the crime watch freq into the police vehicles' radios so they can communicate directly with the patrol on scene. So I guess you could call that a condoned activity, eh?

Think this group is unique?

http://www.citizencorps.gov/watch.html
http://www.gmrsweb.com/gmrsnw.html
http://www.poconorecord.com/2002/local/exd38279.htm
http://www.securityworld.com/community/crimewatch.html
http://www.volunteersolutions.org/volunteer/agency/one_50196.html
http://www.ycwa.org/nine/patneed.htm
http://www.oag.state.ny.us/crime/neighborhood_watch/patrols_strategies.html
http://www.ci.edmonds.wa.us/PoliceWeb/watch.html

... and a hundred other resources on google.com

Bob

5361. Re: MFJ Apt. 2meter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 04:02:57 UTC
From: Bob Miller <bxmillerSpamNot@texas.net>
Message-ID: <mdoHPuVaYoSK0xB0CXGFn2XZC4y5@4ax.com>
Source record: 128448

"Barry Keippel" <bkeippel@excel.net> wrote:

>Does anyone know anything about MFJ's apartment antenna? It says it attaches
>to window sills and covers 10m to 40m plus 2 and 6 meters by changing coils.
>What it doesn't tell you is what kind of gain this thing has and what kind
>of pattern it has. Does anyone have this antenna or know how good it works?
>KA9MAT Barry
>

It would be easier to just get a separate 2 meter antenna. If the repeaters are within 20 or 30 miles, one effective option is to get a mobile whip in a magnetic mount, and stick the mount to any indoor metal surface. I've used one on a metal serving platter. Works great.

The mfj antennna, by the way, is patterned after the B&W AP-10a, which I've used in an apartment for hf contacts -- stick it in the window, unroll the counterpoise wire, and it actually gets out fairly decently on the higher hf bands.

Bob
k5qwg

5362. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 04:08:51 UTC
From: k3bu@aol.com
Message-ID: <20021223230851.18125.00000537@mb-fc.aol.com>
Source record: 128449

>Now the only people with guns are the criminals who now have even more and
>even bigger guns than they had before. Gun control only hurts the legitimate
>law-abiding gun owner, it does nothing to deter the criminal or the
>dishonest. You cannot legislate against nutters who will rampage with
>whatever they can get their hands on, what's next - ban sticks, knives,
>cars, gas, lighters, matches..... you never know
>
>Alec Wood M1BNK
>Teesside UK
>

That's nothing, look at this insanity right here in NJ (liberals in action):

TRENTON, N.J. (Dec. 23) - New Jersey on Monday became the first state to enact ''smart gun'' legislation that would eventually require new handguns to contain technology that allows only their owners to fire them.

However, the bill signed into law by Gov. James E. McGreevey will not go into effect immediately because the technology is still under development. It could be years and cost millions before the technology becomes a reality.

''This is common-sense legislation. There are safety regulations on cars, on toys. It's clearly time we have safety regulations on handguns,'' McGreevey said.

Under the law, smart-gun technology will be required in all new handguns sold three years after the state attorney general determines a smart gun prototype is safe and commercially available. Weapons used by law enforcement officers would be exempt until a separate decision on whether the requirement should apply to them.

The New Jersey Institute of Technology is developing a smart gun prototype that would use sensors on the pistol grip to identify a user.

The owner would have his or her grip programmed at a gun shop or police range by practice-firing the weapon. A microchip in the weapon would remember the grip and determine in an instant whether the authorized user was holding the weapon. If not, the gun would not fire.

NJIT researchers said a viable prototype can be developed in about two years but would require $4 million to $5 million in additional funding, which has yet to be approved.

''What we have is a demonstration concept,'' said Donald Sebastian of NJIT. ''It is not yet a proven technology.''

Gun manufacturer Smith & Wesson was awarded a $1.7 million federal grant last year to develop the technology and has spent $5 million on development since 1993.

Opponents argue that it makes little sense to legislate a requirement about a technology that does not yet exist. They have also raised questions about its reliability.

''No technology is foolproof,'' said Nancy Ross, spokeswoman for the Association of New Jersey Rifle and Pistol Clubs. ''Anyone who has a computer knows how many times it crashes.''

Similar bills have been introduced in Congress and in other states, including New York, Ohio and Tennessee.

5363. Re: Vs: Insulated Wire Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 04:23:41 UTC
From: k3bu@aol.com
Message-ID: <20021223232341.18125.00000538@mb-fc.aol.com>
Source record: 128450

>Nobody bothered to mention what was the conductor diameter, the diameter
>over the insulation, the type of insulation, permittivity, and the diameter
>of the bare wire which replaced it. All essential factors in such
>experiments.
>
>Or how careful lengths were measured. And were there other factors which
>changed when the type of wire was changed. A different SWR meter? A change
>in the length or impedance of feedline? It is fatal to determine antenna
>resonant frequencies using SWR meters. Especially when only small shifts
>are expected.
>---
>==========
>Regards from Reg G4FGQ

Hey Reg, you sound like some Fractal professor, or W8JI who when wrong, tries to dance out of it.
Try to build at least 10m dipole, first using calculated length of bare #12 wire, and then the same length using say PVC insulated #12 house wire. Choice of instruments is yours. You will find that "insulated" antenna will be about 4 - 5 % lower in resonant frequency.
I use also SWR meters to determine resonant frequency and am stil alive to tell about it, ain't that fatal :-)
You can use RF bridge, MFJ analyzer, SWR bridge, you name it, results will be the same.
BUILD IT - SEE IT

73 Yuri

5364. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 04:25:30 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E07E1BA.4010400@ieee.org>
Source record: 128451

Dennis Ferguson wrote:
> For the other direction, however, you suggest you can see "a destructive
> interference process" going on over there. I'd like to know exactly
> what is it this looks like? How did you recognize it? As far as I can
> tell this process involves no net energy, and because of this it cannot
> be observed. That is, "a destructive interference process" is
> indistinguishable from nothing at all, so I think it is a lot simpler to
> just refer to it as "nothing at all".

That's just it. We are expecting to see some brightness from the reflections from the impedance discontinuity. But all we see is darkness. We don't see the brightness until we pass the impedance discontinuity.

> If you didn't attempt to
> make use of the +/- 0.8 number (which can't be observed anywhere
> in the end result, the end result has a reflection coefficient of
> 0 in one direction and -1 in the other) in the first place neither
> of you would need to introduce these odd devices, that do nothing
> to help actually solve the problem, to show that 0.8 is there even
> though you can't see it.

So you would rather imagine a metaphysical virtual reflection coefficient that doesn't exist in reality??? That's really an improvement over the actual physical reflection coefficient????? Everything can be explained without a belief in the supernatural. Everything can be explained with the actual physical reflection coefficient.

> So to eliminate the need for either of these extra devices used
> to work 64% into there (and in doing so to apply Occam's Razor), I
> think the simplest view is that the reflection coefficient for
> one side of an impedance discontinuity is always a function of the
> two respective characteristic transmission line impedances *and* the
> relative amplitude and phase of any wave approaching the discontinuity
> from the other side.

Too bad that virtual reflection coefficient is an effect rather than a cause and cannot be the cause of anything. You too, have been seduced by the steady-state model.

> That is, you can't compute a reflection coefficient
> unless you know all of these things. This means that the reflection
> coefficient you compute based solely on the impedances is actually
> a special case that only applies when you know the wave approaching
> the discontinuity from the other side has zero amplitude, and
> applies not at all in any other case, like the 50/450 ohm discontinuity
> in your case where you have waves approaching in both directions.

The actual physical reflection coefficient is the only one capable of
causing anything. Everything else is an effect.

> Now that we know that the reflection coefficient is not +/- 0.8
> for the impedance discontinuity in your problem, we won't compute
> 0.8 but instead can just compute what the reflection coefficients
> really are for each direction.

But your virtual reflection coefficients are not really there. They are
only virtual and cannot cause anything. You have been seduced.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5365. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 04:27:39 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E07E23B.3000802@ieee.org>
Source record: 128452

Zoran Brlecic wrote:

> OC_CAM's Razor wrote:
>> It appears that gun prohibition is working in
>> England just about as well as alcohol prohibition worked here in the USA.
>
> But not the narcotics prohibition? That one works like a charm...

It does? Where?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

5366. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 05:33:35 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <PkSN9.486613$NH2.33653@sccrnsc01>
Source record: 128453

Wait a minute mister criminal, my gun is temporarily off line.

"Yuri Blanarovich" <k3bu@aol.com> wrote in message
news:20021223230851.18125.00000537@mb-fc.aol.com...
>> ''No technology is foolproof,'' said Nancy Ross, spokeswoman for the
> Association of New Jersey Rifle and Pistol Clubs. ''Anyone who has a
computer
> knows how many times it crashes.''

5367. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 05:40:55 UTC
From: fmmck@aol.com
Message-ID: <20021224004055.11931.00000187@mb-fy.aol.com>
Source record: 128454

<< My Bird wattmeter reads so close to zero reflected power when connected to a Bird dummy load that I can`t see any difference. Maybe my slugs are extra good. >>

Richard-

I believe the 26 dB that was mentioned earlier, was a "worst case" value.

Another thing to consider is the detector diode's non-linearity for small signals. Below a certain power level, the value of the voltage sample will fall off more rapidly than the actual power present.

Your Bird meter might indicate some reflected power if a lower-power slug were used. However, you would have a hard time determining if it was due to the slug's sensitivity to opposite-direction power or to actual reflected power.

73, Fred, K4DII

5368. Re: QSL.NET?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 06:32:56 UTC
From: William Ewald <wgewald@att.net>
Message-ID: <540g0v8r5jt6p9ggp27higld3mv2reopnu@4ax.com>
Source record: 128455

On Sat, 21 Dec 2002 10:47:23 -0500, "Peter O. Brackett"
<ab4bc@ix.netcom.com> wrote:

> If you ever
>looked at all those useless web sites on their servers taking up disk space
>and
>bandwidth for no good return.

www.n1ir.com?

5369. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 06:46:02 UTC
From: richardharrison@webtv.net
Message-ID: <18093-3E0802AA-274@storefull-2313.public.lawson.webtv.net>
Source record: 128456

Fred, K4DII wrote:
"I believe that the 26 dB that was mentioned earlier was a "worst case" value."

Yes.

The point is that Richard Fry is creating a diversion from his mistake with decibels by making a false impression with an assertion that: "But note that this wattmeter does NOT read zero when there is zero true reflected power."

Fact is that balance is reasonably good in the Bird wattmeter. 26 dB is a power ratio of 400 to 1.

Certainly nothing is perfect, but 1/4% reverse response is not bad. Even this "worst case" response would be hard to read on a meter.

Best regards, Richard Harrison, KB5WZI

5370. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 08:13:41 UTC
From: Zoran Brlecic <WA7AA@attbi.com>
Message-ID: <3E081709.1050706@attbi.com>
Source record: 128457

OC_CAM's Razor wrote:

>>> It appears that gun prohibition is working in
>>> England just about as well as alcohol prohibition worked here in the
>>> USA.
>>
>>
>> But not the narcotics prohibition? That one works like a charm...
>
>
> It does? Where?

In the heads of the politicians. Yes, $60 billion a year on the "war on drugs" buys many a vote from the gullible.

5371. Vs: Insulated Wire Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 09:27:49 UTC
From: "Antti J. Huhtala" <oh2dt@sral.fi>
Message-ID: <au99a5$r0v$1@nyytiset.pp.htv.fi>
Source record: 128458

"Reg Edwards" <g4fgq.regp@btinternet.com> kirjoitti viestiss&#65533;
news:au7vpu$b01$1@knossos.btinternet.com...
> > Building my first quad in 1965 I used loop dimensions given in the ARRL
> > Handbook for _bare copper wire_. Ignorant of the difference at the time,
> > I used plastic insulated wire. The quad didn't work at all - it had
little
> > or no
> > directivity and a terrible SWR throughout the band.
> >
> > One week and a lot of tuning later I had shortened the loops approx. by
> one
> > meter, ie. 5 %. Front-to-back was a respectable 25 dB and SWR was 1.
>
> ============================
>
> How do you know the apparent mistuning was due to use of plastic insulated
> wire ?
> ---
> Reg, G4FGQ
>
Sorry Reg, I don't have 100 % scientific proof for it. However, that's what
I was left with after trying to analyse all other factors that might
contribute.
Let me get back to to you about this a little later. Now I've got to go and
see some relatives of mine.

Happy holidays to you and Yuri (and others who may read this)

Antti, OH2DT

5372. Re: Inexpensive 1/4 wave magmounts?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 12:41:38 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <5CYN9.1925$oW.485309@news20.bellglobal.com>
Source record: 128459

"Bob"
> I'm looking for some inexpensive 1/4 wave magmount
> antennas for a VHF freq (151 MHz). I'll even consider
> a cheap mount-only that I can add a whip to.

Radio Shack sells a BNC-connector window mount (not magnetic). It is intended to hold a rubber duckie antenna (or any small BNC mount antenna). It is a bent bit of metal that wraps around the top of the window and has a cable about three feet long. The antenna (not included) plugs into the BNC connector.

They would not be suitable for cars with power windows and tight fitting glass and weather stripping (potential for cracked glass). They also wouldn't work if the side window glass was deeply recessed as compared to the roof.

They were on clearance sale here in Canada and seem to be sold out. I was in FL recently and they seemed to be a current item. I don't recall the price, but probably around US$10.

5373. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 14:42:26 UTC
From: k1bqt@aol.com
Message-ID: <20021224094226.27370.00000250@mb-bk.aol.com>
Source record: 128462

>Gun manufacturer Smith & Wesson was awarded a $1.7 million federal grant last year to develop the technology and has spent $5 million on development since 1993.<

Talk about divide and conquer!

Well, it's Christmas....time to forget all this hamtenna wranglin' and get into a festive spirit. Think I'll light up a big old fatboy, toss a couple shots of the Captain in my nog, and wipe a little Hoppe's on the twelve-gauge. Nothin' like a little Reindeer steak to round off a case of the muchies! From Terry, me, and everyone here at Hollow Point Lodge on snowy Medum's Pond, have a fantastic holiday!

Rick K1BQT

5374. WTB:Cheap dual band mobile

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 14:56:21 UTC
From: FM <radiovintage@hotmail.com>
Message-ID: <pA_N9.3721$ka5.445737@newsread1.prod.itd.earthlink.net>
Source record: 128464
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

I am looking for a dual bander 2/440 for mobile use.Looks are not important
but price is.Please state price and condition.
Thanks,73

5375. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 14:56:24 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <dA_N9.1151$Eh.130700@newsfeed.slurp.net>
Source record: 128463

"Richard Harrison" <richardharrison@webtv.net> wrote

>Richard Fry is creating a diversion from his mistake with
>decibels by making a false impression with an assertion
>that: "But note that this wattmeter does NOT read zero
>when there is zero true reflected power."

>Certainly nothing is perfect, but 1/4% reverse response is
>not bad. Even this "worst case" response would be hard
>to read on a meter.

The only diversion here is toward an understanding that more accurate means of measuring EM fields in transmission lines than provided by "in-line directional wattmeters" DOES exist.

Whether or not that level of accuracy is appropriate for radio amateurs is another matter.

Richard Fry

5376. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 15:36:46 UTC
From: n2ey@aol.com
Message-ID: <20021224103646.03091.00000337@mb-cc.aol.com>
Source record: 128465

In article <3E071EB9.9030908@ieee.org>, OC_CAM's Razor <Cecil.A.Moore@ieee.org>
writes:

>N2EY wrote:
>> OC_CAM's Razor <Cecil.A.Moore@ieee.org> wrote:
>>
>>>N2EY wrote:
>>>
>>>>Actually, if one is traveling as described, one has no time at all to
>think
>>>>because time is not passing.
>>>
>>>Einstein didn't seem to have any trouble thinking about it and
>>>describing it to the rest of us.
>>
>> Einstein wasn't traveling as described in your original post.
>
>Einstein said he traveled that way.

Where did Einstein say he "rides the crest of a wave traveling at the speed of
light" ?

> Did Einstein lie?

Maybe. More probably, he was just pulling your leg, Cecil.

73 de Jim, N2EY

5377. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 15:53:29 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0882F9.5010506@ieee.org>
Source record: 128466

N2EY wrote:
> OC_CAM's Razor <Cecil.A.Moore@ieee.org> writes:
> Where did Einstein say he "rides the crest of a wave traveling at the speed of
> light" ?

That's how the Discovery Channel said he envisioned what might happen
to things traveling at the speed of light when they encounter things
at rest. A lot of us have surfed on water waves so envisioning surfing
on an electromagnetic wave can be an interesting and enlightening thought
experiment.

> More probably, he was just pulling your leg, Cecil.

I know he was pulling our legs when he said, "God doesn't roll dice."
Was it Schrï¿½dinger who said, "Not only does God roll dice, but
He rolls them in the dark."?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5378. Re: Insulated Antenna Wires and Californian Grapes.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 16:03:43 UTC
From: "J. Keith Carter" <j.keith.carter@sympatico.ca>
Message-ID: <3E08855F.57A27B92@sympatico.ca>
Source record: 128467

L. B. Cebic W4RLN has a very interesting paper on his site re insulated wires when modeled with NEC-4. (which I don't have). However he does furnish data and curves to qualify his exercise. But I will say from practical experience in the northern latitudes, when a snow storm comes up like last evening, precipitation static would have wiped out my sked on 160 had I not had insulated wire. (the military and commercial people found this out long ago) Of course my DSP NR helped as well. But when it comes to resonant wires, in my 53 years of putting them up, even with modeling I have yet to get one right the first time. Wire antennas are cut and try. Keith, VE3JKC.

Reg Edwards wrote:

> The efffect of an insulated covering of an antenna wire is to increase its
> capacitance per unit length. It has no effect on inductance per unit
> length. So the result is a decrease in propagation velocity along the wire
> relative to that of light. As with any other transmission line, as Terman
> probably agrees, the velocity decreases according to the square root of the
> increase in capacitance. There are no other significant effects.
>
> The problem is to determine the increase in capacitance over that of a bare
> wire due to an insulating marerial of given thickness of given permittivity.
> Clearly the capacitance of the bare wire to its surroundings must be taken
> into account and this can be estimated from a sensible model. Models will
> vary. As I have been unable to re-discover my ancient notes I have spent the
> last three hours going back to square one fortified by 3/4's of a bottle of
> Californian medium white whine from Ernest & Gallo's celebrated cellars,
> dated 2001.
>
> Let's take as an example the North American most popular antenna - a 40m
> band 1/2-wave dipole at a height of 1/4-wavelength above ground. This may be
> considered as a worst-case model.
>
> After much ball-point and paper tt turns out that the ratio of antenna
> capacitance, with and without wire insulation, is given by -
>
> K*Ln(4*H/d) divided by -
>
> K*Ln(4*H/D) + Ln(D/d),
>
> where H = antenna height above ground,
>
> d = wire diameter,
>
> D = diameter over wire insulation,
>

> K = permittivity of insulating material,
>
> Logs to base e.
>
> For PVC, permittivity is in the same ballpark as 4.
>
> Let H = 33 feet, Wire diameter = 18swg, Diameter over wire insulation =
> twice wire diameter, Insulation = PVC.
>
> RESULT: To maintain the same dipole resonant frequency after insulating the
> wire, cut off 10 inches from the ends. which is less than the value of the
> "end effect" which people take notice of only because of the importance
> attached to it in the handbooks.
>
> If an insulated wire is replaced, as would normally be done, by a bare wire
> of greater (copper) diameter the difference in resonant lengths would be
> even smaller.
>
> With enamel insulated wire (for weather protection - it really works!) the
> resonant length is completely unaffected.
> ---
> ==========
> Regards from Reg G4FGQ
> For Free Radio Design Software
> Go to http://www.g4fgq.com
> ==========

5379. Re: Yagi out of antenna bussiness?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 16:09:37 UTC
From: Herbert Khaury <Herbert@tiptoe.tp>
Message-ID: <vUydnY-hz8vaG5WjXTWcrg@comcast.com>
Source record: 128468

"Yuri Blanarovich" <k3bu@aol.com> wrote in message
news:20021221132121.21652.00000288@mb-fi.aol.com...

Eggsealant!

Could have averted a tragedy: http://www.humptydumpty.com/

5380. Re: Fractal guns story

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 16:30:38 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <aua23c$74g$1@slb6.atl.mindspring.net>
Source record: 128469

Rick, Yuri, et al:

Happy holidays from the Brackett's here "on-the-beach" at Indialantic
By-the-Sea, FL.

We got lot's of guns here, but no snow.

Now where did I put my surfboard when I came back yesterday?

Best wishes for the New Year to all,
--
Peter K1PO
Indialantic By-the-Sea, FL

"Rick Littlefield" <k1bqt@aol.com> wrote in message
news:20021224094226.27370.00000250@mb-bk.aol.com...
> >Gun manufacturer Smith & Wesson was awarded a $1.7 million federal grant
last
> year to develop the technology and has spent $5 million on development
since
> 1993.<
>
> Talk about divide and conquer!
>
> Well, it's Christmas....time to forget all this hamtenna wranglin' and get
into
> a festive spirit. Think I'll light up a big old fatboy, toss a couple
shots of
> the Captain in my nog, and wipe a little Hoppe's on the twelve-gauge.
Nothin'
> like a little Reindeer steak to round off a case of the muchies! From
Terry,
> me, and everyone here at Hollow Point Lodge on snowy Medum's Pond, have a
> fantastic holiday!
>
> Rick K1BQT

5381. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 16:34:56 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <C00O9.1167$Eh.148494@newsfeed.slurp.net>
Source record: 128470
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

"J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote
>>
> For those NG lurkers that may wonder why the light comes on so
> quickly when the light switch is thrown - while the electrons might
> take several minutes...
> They need to keep in mind that voltage is analogous to water pressure.
> The pressure wave (voltage) moves very quickly. The actual water flow
> (electrons) depends on the flow rate (current).

That will not explain why the light turns on quickly. It takes voltage AND current (ie, power) to light a light bulb or do any other "work."

If the bulb had to wait several minutes for the current to arrive, it would be dark until then.

Richard Fry

5382. Anyone using a Butternut vertical in the SD area?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 17:09:55 UTC
From: jkeller <jkeller@cox.net>
Message-ID: <Dx0O9.156992$6k.2729729@news1.west.cox.net>
Source record: 128471

I'm thinking of getting one very soon, but I'd like to take a look at it in person first. Can't seem to be able to find a decent picture of one on the internet including the Bencher site.

Thanks, Jim
WB6YXY
Oceanside

5383. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 18:05:02 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <8i6h0vk4pcrj87m18ivchmnmj73m10c6da@4ax.com>
Source record: 128472

On Tue, 24 Dec 2002 09:53:29 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>N2EY wrote:
>> OC_CAM's Razor <Cecil.A.Moore@ieee.org> writes:
>> Where did Einstein say he "rides the crest of a wave traveling at the speed of
>> light" ?
>
>That's how the Discovery Channel said he envisioned what might happen
snip
>
>> More probably, he was just pulling your leg, Cecil.
>
>I know he was pulling our legs when he said, "God doesn't roll dice."

Hi Cecil,

I thought your sources were particularly slim. You misquoted Einstein
twice in the space of two quotes (or attributions, rather).

Einstein did not come up with the idea you propose (and which you show
ill-understanding of - even at the Discovery Channel grade).

Jim was right about there being no time at the speed of light, this
was an observation Einstein repeated from two other researchers who
already described this effect years before. For a closer reading, I
would suggest once again, you should avoid Physics coverage from
derivative works (especially bench level engineering or technical
books); you rarely get these topics right when you lean on these weak
sources.

There were two men who pre-date Einstein in this regard of travel at
the speed of light: Poincarï¿½ persuaded Einstein to contemplate
Lorentz's work on what are called Lorentz Transformations. What you
are quoting is not Einstein, it is Lorentz and his work. Einstein did
not do the work, he merely reported it. You did neither the work, nor
did you follow exactly what Einstein said either. The work,
Lorentzian transforms, are quite simple employing common high school
Algebra I concepts.

Lorentz showed some interesting facts about the "physical world" at
the speed of light (there being no such thing, is equivalent to this
so-called thought experiment). Riding such a crest would present you
with the forward and backward dimensions collapsed to zero. You
cannot see ahead, you cannot see behind. At the speed of light, there
is no distance between the source and the load. Riding such a crest

would present you with a flat dimension (in quadrature to apparent motion) that is infinite in expanse. Riding such a crest would present you with the collapse of time to zero as well, At the speed of light, there is no time interval, everything is simultaneous. At the speed of light, any physical entity would have had to had the energy of an infinite cosmos required to boost it to that speed.

73's
Richard Clark, KB7QHC

5384. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 18:26:53 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E08A6ED.40701@ieee.org>
Source record: 128473

Richard Clark wrote:
> Jim was right about there being no time at the speed of light, ...

That didn't keep Einstein or me from envisioning such in our minds.
I'm feel sorry for you if your thought patterns are so limited.

> What you
> are quoting is not Einstein, it is Lorentz and his work. Einstein did
> not do the work, he merely reported it. You did neither the work, nor
> did you follow exactly what Einstein said either.

There's that copout word, "exactly", again. I dare say you are not
quoting anyone "exactly" either. I'm pretty sure that Lorentz didn't
write in English. And I think I learned about Lorentz's transformations
about 50 years ago. I think they explain the universal red shift better
than does any Doppler Effect.

> Lorentz showed some interesting facts about the "physical world" at
> the speed of light (there being no such thing, is equivalent to this
> so-called thought experiment). Riding such a crest would present you
> with the forward and backward dimensions collapsed to zero.

Not if I do it in my mind. You see, it is a *thought* experiment.
Einstein didn't have to travel at the speed of light to envision himself
traveling at the speed of light. Neither do you or I.

> At
> the speed of light, any physical entity would have had to had the
> energy of an infinite cosmos required to boost it to that speed.

You haven't told me anything I didn't already know. Yet you have not
stopped me from riding those waves in my mind. Good luck on that quest.

Maybe you should try it sometime, Richard. It will literally open your
eyes and mind. It might help if you use a photon surfboard to stand on.
--
cheers, CAM http://www.qsl.net/w5dxp

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5385. Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 18:40:29 UTC
From: cprstn54zz@att.net
Message-ID: <3e0888e7.64710812@news-server.optonline.net>
Source record: 128474

I want to put up one light inverted-V dipole-type antenna when camping
that will handle 40M and 80M QRP.

Options so far considered include traps, loading coils and a fan
arrangement.

Since I need to guy the pole anyway, How about running a half-wave 80M
perpendicular a 40M half-wave dipole, with both connected to the same
feedpoint, fed with twinlead?

I have tried to model this on EZNEC, but could not figure out how to
get the split source feature to work with a 4-wire junction.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

5386. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 18:47:48 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <i9ah0v4kg5toejfm7spbptdclifjvp2s7j@4ax.com>
Source record: 128475

On Tue, 24 Dec 2002 12:26:53 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>> What you
>> are quoting is not Einstein, it is Lorentz and his work. Einstein did
>> not do the work, he merely reported it. You did neither the work, nor
>> did you follow exactly what Einstein said either.
>
>There's that copout word, "exactly", again.

Hi Cecil,

Well.... It stands to reason that I cannot apply the word "correctly"
to your quotes either if you get your knickers so easily bunched up.

Tell us about copouts and editors, Cecil. Don't let it get you down,
Buckaroo; it all look so much better in print. ;-)

73's
Richard Clark, KB7QHC

5387. FT-920 AND SB-220 ?!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 18:51:55 UTC
From: "news.verizon.net" <sam.krusnsberg@verizon.net>
Message-ID: <f12O9.102776$4W1.75768@nwrddc02.gnilink.net>
Source record: 128476

How should the 920 and 220 be connected together ? should I use an extermal antenna tuner between the 920 and 220 and not use the internal auto tuner in the 920 ? also what type of coax and length between the two ? Thanks, Sam KG4HEB, callingdx@yahoo.com

5388. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 19:23:44 UTC
From: richardharrison@webtv.net
Message-ID: <17571-3E08B440-750@storefull-2312.public.lawson.webtv.net>
Source record: 128482

Richard Fry wrote:
"---more accurate means of measuring EM fields in transmission
lines than provided by "in-line directional wattmeters" DOES exist."

What practical alternative exists for radio amateurs?

The amateur is often changing bands and frequencies. The old amateur
method to determine power was to measure power input to the final
amplifier and estimate the power radiated.

Use an r-f bridge to find the resistance of the antenna load at a
particular point in the feed system. Then measure the r-f amps at that
point. The power can be calculated from I squared R. The FCC mandates
this method for AM broadcasters. The power can be continuously monitored
as a function of the r-f amps this way.

An amateur would have to find a feedpoint resistance for each
transmitted frequency.

What more accurate means of measuring E-M fields in an amateur`s
transmission line is practical?

Best regards, Richard Harrison, KB5WZI

5389. Re: FT-920 AND SB-220 ?!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 19:29:12 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <pPWcnRLIodxsKZWjXTWcog@comcast.com>
Source record: 128477

You do not need any kind of antenna tuner. You might need an adaptor on the T/R relay. Can't remember off the top of my head, but I think the Heathkit 220 open circuit relay control voltage is a lot more than 12V. Use almost any coax you want; any reasonable length of RG58 is OK.

Tam/WB2TT
"news.verizon.net" <sam.krusnsberg@verizon.net> wrote in message news:f12O9.102776$4W1.75768@nwrddc02.gnilink.net...
> How should the 920 and 220 be connected together ? should I use an extermal
> antenna tuner between the 920 and 220 and not use the internal auto tuner in
> the 920 ? also what type of coax and length between the two ? Thanks, Sam
> KG4HEB, callingdx@yahoo.com
>
>

5390. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 19:33:02 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E08B66E.4060303@ieee.org>
Source record: 128479

Ken wrote:
> Since I need to guy the pole anyway, How about running a half-wave 80M
> perpendicular a 40M half-wave dipole, with both connected to the same
> feedpoint, fed with twinlead?

If you are going to feed it with twinlead, why not put up an 80m
dipole and feed it with 1/2WL of twinlead on 80m and 3/4WL of twinlead
on 40m? - no tuner required.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5391. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 19:33:03 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <auacpf$3dh$1@helle.btinternet.com>
Source record: 128478

> The only diversion here is toward an understanding that more accurate
means
> of measuring EM fields in transmission lines than provided by "in-line
> directional wattmeters" DOES exist.
>
> Whether or not that level of accuracy is appropriate for radio amateurs is
> another matter.
>
> Richard Fry
>
==========

All radio amateurs and 99% of professionals, when it comes to measurements severely suffer from delusions of accuracy.

This results from gross neglect of the study of elementary statistics in their very early education.

Any measurement which appears to confirm an old wives' tale is recorded as a success, even published in learned articles, magazines and newsgroups. All measurements to the contrary are discarded as errors and conveniently forgotten about.

Not that it matters very much - radio is by far the most inexact of all the sciences - not that it deserves that name.

Fortunately for the fraternity, any bloody thing will work! And it's great fun, eh?

Reg, G4FGQ

5392. MORE WINE!! Re: Insulated Antenna Wires and Californian Grapes.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 19:35:54 UTC
From: Murray Neece <radioranch@qth.com>
Message-ID: <3E08B719.E1CEF4E2@qth.com>
Source record: 128480
Body handling: Binary attachment payload not displayed: radioranch.vcf

Lets have some more wine and build another antenna, this is GREAT...Seasons Greeting to all. 73 Murray K5MDM

Reg Edwards wrote:

> The efffect of an insulated covering of an antenna wire is to increase its
> capacitance per unit length. It has no effect on inductance per unit
> length. So the result is a decrease in propagation velocity along the wire
> relative to that of light. As with any other transmission line, as Terman
> probably agrees, the velocity decreases according to the square root of the
> increase in capacitance. There are no other significant effects.
>
> The problem is to determine the increase in capacitance over that of a bare
> wire due to an insulating marerial of given thickness of given permittivity.
> Clearly the capacitance of the bare wire to its surroundings must be taken
> into account and this can be estimated from a sensible model. Models will
> vary. As I have been unable to re-discover my ancient notes I have spent the
> last three hours going back to square one fortified by 3/4's of a bottle of
> Californian medium white whine from Ernest & Gallo's celebrated cellars,
> dated 2001.
>
> Let's take as an example the North American most popular antenna - a 40m
> band 1/2-wave dipole at a height of 1/4-wavelength above ground. This may be
> considered as a worst-case model.
>
> After much ball-point and paper tt turns out that the ratio of antenna
> capacitance, with and without wire insulation, is given by -
>
> K*Ln(4*H/d) divided by -
>
> K*Ln(4*H/D) + Ln(D/d),
>
> where H = antenna height above ground,
>
> d = wire diameter,
>
> D = diameter over wire insulation,
>
> K = permittivity of insulating material,
>
> Logs to base e.
>
> For PVC, permittivity is in the same ballpark as 4.
>

> Let H = 33 feet, Wire diameter = 18swg, Diameter over wire insulation =
> twice wire diameter, Insulation = PVC.
>
> RESULT: To maintain the same dipole resonant frequency after insulating the
> wire, cut off 10 inches from the ends. which is less than the value of the
> "end effect" which people take notice of only because of the importance
> attached to it in the handbooks.
>
> If an insulated wire is replaced, as would normally be done, by a bare wire
> of greater (copper) diameter the difference in resonant lengths would be
> even smaller.
>
> With enamel insulated wire (for weather protection - it really works!) the
> resonant length is completely unaffected.
> ---
> ==========
> Regards from Reg G4FGQ
> For Free Radio Design Software
> Go to http://www.g4fgq.com
> ==========

[One or more binary attachments are retained only in the source text.]

5393. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 19:42:44 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E08B8B4.9020003@ieee.org>
Source record: 128481

Richard Clark wrote:
> Tell us about copouts and editors, Cecil.

Here's the exact cut and pasted email from QEX:

"You can post it to your Web site now but that may affect
our decision whether to publish it in print."

I assume that is standard practice among magazines. After
all, why should they choose to publish something that
has already been published previously elsewhere? They
also warn against submitting the same potential article
to more than one magazine at a time.
--
cheers, CAM http://www.qsl.net/w5dxp

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5394. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 19:48:09 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E08B9F9.8050801@ieee.org>
Source record: 128483

Reg Edwards wrote:
> All radio amateurs and 99% of professionals, when it comes to measurements
> severely suffer from delusions of accuracy.

Maybe, maybe not. If I am happy with plus or minus 10% accuracy on
the value of components, why should I not also be happy with 10%
accuracy on my measurements.
--
cheers, CAM http://www.qsl.net/w5dxp

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5395. Re: How do couplers in SWR meters work?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 19:51:34 UTC
From: Ed Senior <eseniors@earthlink.net>
Message-ID: <aV2O9.5047$b97.492277@newsread2.prod.itd.earthlink.net>
Source record: 128484
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

This water analogy may be getting a bit strained; but with water, this is no big mystery.

Assuming a valve is open at the far end, water will start to flow out as soon as the pressure wave gets down there. (Pipeline is assumed to be full when you start, natch.) You don't have to wait several minutes for that flow to occur--unless we're talking about the California Aquaduct or something. Of course, the specific water that flows immediately from the far end is the water that's already down there. "New" water from the sending end will take much longer to arrive.

You are free to substitute electrons for water in all this, at your own risk.

"Richard Fry" <rfry@adams.net> wrote in message
news:C00O9.1167$Eh.148494@newsfeed.slurp.net...
>
> That will not explain why the light turns on quickly. It takes voltage
AND
> current (ie, power) to light a light bulb or do any other "work."
>
> If the bulb had to wait several minutes for the current to arrive, it
would
> be dark until then.
>
> Richard Fry
>
> "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca> wrote
> >>
> > For those NG lurkers that may wonder why the light comes on so
> > quickly when the light switch is thrown - while the electrons might
> > take several minutes...
> > They need to keep in mind that voltage is analogous to water pressure.
> > The pressure wave (voltage) moves very quickly. The actual water flow
> > (electrons) depends on the flow rate (current).
> ----------
>
>

5396. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 19:52:46 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E08BAD2.9070202@attbi.com>
Source record: 128485

Isn't the problem confined to the following?

If I ride the wave at the speed of light and look forward, there is no
forward so I can see only behind me: ergo, I see the back of my head
[without mirrors]. Hmmmm funny stuff here.

DD, W1MCE

OC_CAM's Razor wrote:
> Richard Clark wrote:
>
>> Jim was right about there being no time at the speed of light, ...
>
>
> That didn't keep Einstein or me from envisioning such in our minds.
> I'm feel sorry for you if your thought patterns are so limited.
>
>> What you
>> are quoting is not Einstein, it is Lorentz and his work. Einstein did
>> not do the work, he merely reported it. You did neither the work, nor
>> did you follow exactly what Einstein said either.
>
>
> There's that copout word, "exactly", again. I dare say you are not
> quoting anyone "exactly" either. I'm pretty sure that Lorentz didn't
> write in English. And I think I learned about Lorentz's transformations
> about 50 years ago. I think they explain the universal red shift better
> than does any Doppler Effect.
>
>> Lorentz showed some interesting facts about the "physical world" at
>> the speed of light (there being no such thing, is equivalent to this
>> so-called thought experiment). Riding such a crest would present you
>> with the forward and backward dimensions collapsed to zero.
>
>
> Not if I do it in my mind. You see, it is a *thought* experiment.
> Einstein didn't have to travel at the speed of light to envision himself
> traveling at the speed of light. Neither do you or I.
>
>> At
>> the speed of light, any physical entity would have had to had the
>> energy of an infinite cosmos required to boost it to that speed.
>
>
> You haven't told me anything I didn't already know. Yet you have not

> stopped me from riding those waves in my mind. Good luck on that quest.
>
> Maybe you should try it sometime, Richard. It will literally open your
> eyes and mind. It might help if you use a photon surfboard to stand on.

5397. Re: MORE WINE!! Re: Insulated Antenna Wires and Californian Grapes.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 20:10:28 UTC
From: tdonaly@aol.com
Message-ID: <20021224151028.10374.00000198@mb-fa.aol.com>
Source record: 128486

Hi Murray,
Good idea. I've got a vintage '65 Ripple around here someplace that
should be just the thing.
73,
Tom Donaly, KA6RUH

Murray wrote,
>
>Lets have some more wine and build another antenna, this is GREAT...Seasons
>Greeting to all. 73 Murray K5MDM
>
>Reg Edwards wrote:
>
>> The efffect of an insulated covering of an antenna wire is to increase its
>> capacitance per unit length. It has no effect on inductance per unit
>> length. So the result is a decrease in propagation velocity along the wire
>> relative to that of light. As with any other transmission line, as Terman
>> probably agrees, the velocity decreases according to the square root of the
>> increase in capacitance. There are no other significant effects.
>>
>> The problem is to determine the increase in capacitance over that of a bare
>> wire due to an insulating marerial of given thickness of given
>permittivity.
>> Clearly the capacitance of the bare wire to its surroundings must be taken
>> into account and this can be estimated from a sensible model. Models will
>> vary. As I have been unable to re-discover my ancient notes I have spent
>the
>> last three hours going back to square one fortified by 3/4's of a bottle of
>> Californian medium white whine from Ernest & Gallo's celebrated cellars,
>> dated 2001.
>>
>> Let's take as an example the North American most popular antenna - a 40m
>> band 1/2-wave dipole at a height of 1/4-wavelength above ground. This may
>be
>> considered as a worst-case model.
>>
>> After much ball-point and paper tt turns out that the ratio of antenna
>> capacitance, with and without wire insulation, is given by -
>>
>> K*Ln(4*H/d) divided by -
>>
>> K*Ln(4*H/D) + Ln(D/d),
>>
>> where H = antenna height above ground,

>>
>> d = wire diameter,
>>
>> D = diameter over wire insulation,
>>
>> K = permittivity of insulating material,
>>
>> Logs to base e.
>>
>> For PVC, permittivity is in the same ballpark as 4.
>>
>> Let H = 33 feet, Wire diameter = 18swg, Diameter over wire insulation =
>> twice wire diameter, Insulation = PVC.
>>
>> RESULT: To maintain the same dipole resonant frequency after insulating
>the
>> wire, cut off 10 inches from the ends. which is less than the value of the
>> "end effect" which people take notice of only because of the importance
>> attached to it in the handbooks.
>>
>> If an insulated wire is replaced, as would normally be done, by a bare wire
>> of greater (copper) diameter the difference in resonant lengths would be
>> even smaller.
>>
>> With enamel insulated wire (for weather protection - it really works!) the
>> resonant length is completely unaffected.
>> ---
>> ==========
>> Regards from Reg G4FGQ
>> For Free Radio Design Software
>> Go to http://www.g4fgq.com
>> ==========
>
>--

5398. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 20:40:27 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E08C63B.4000306@ieee.org>
Source record: 128487

Dave Shrader wrote:
> Isn't the problem confined to the following?
>
> If I ride the wave at the speed of light and look forward, there is no
> forward so I can see only behind me: ergo, I see the back of my head
> [without mirrors]. Hmmmm funny stuff here.

The problem is not the speed of light. The problem is the depth (or lack thereof) of human thought. Are you familiar with modeling large ships floating on water by using smaller scale ships floating on glycerin or oil?

What I am doing in my thought experiment is slowing things down to human speed. It's somewhat like flying above a tsunami wave in a jet airplane, matching its speed. We are looking ahead and see the shoreline of an island directly in the path of the tsunami. The results are predictable.

In my thought experiment, we have a simulated EM wave traveling toward an impedance discontinuity. The wave model predicts what is going to happen. If we meet any waves traveling the other direction, they will pass us unchanged. In fact, the only thing that can change a wave in a lossless transmission line is a real impedance discontinuity accompanied by reflections and merging of waves traveling in the same direction. A virtual reflection coefficient is the *result* of a virtual impedance. A virtual impedance is the *result* of a particular V/I ratio. The particular V/I ratio is the *result* of reflections and interference of component waves around a *real* impedance discontinuity. The reflections and interference are the *result* of a real impedance discontinuity plus coherent source wave energy flowing into the impedance discontinuity often from opposite directions.

A virtual reflection coefficient is the final end result of the process and NOT the cause of anything except arguments on r.r.a.a from people who have been seduced by the steady-state model. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5399. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 20:51:42 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <r9hh0vc9bbjcfs81mtneplc2jso7u6skim@4ax.com>
Source record: 128488

On Tue, 24 Dec 2002 13:42:44 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Richard Clark wrote:
>> Tell us about copouts and editors, Cecil.
>
>Here's the exact cut and pasted email from QEX:
>
>"You can post it to your Web site now but that may affect
>our decision whether to publish it in print."
>
>I assume that is standard practice among magazines. After
>all, why should they choose to publish something that
>has already been published previously elsewhere? They
>also warn against submitting the same potential article
>to more than one magazine at a time.

Hi Cecil,

Naive too I see. You've offered exclusive rights to a vanity rag for
the sake of -maybe- seeing your name in print? Tacit admission on
your part that there is no one else interested. Months from now? Too
coy by half. I suppose this takes the pressure off of the IEEE
editors on how to approach your ground-breaking work. ;-)
Or did you save some of your proof for yet another article?

Not too odd, that last notion. You've admittedly been giving us half
the story for months now. You must be aiming to do a series - good
luck.

73's
Richard Clark, KB7QHC

5400. Re: FT-920 AND SB-220 ?!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 21:38:30 UTC
From: W6DKN <w6dkn-nospam-@qsl.net>
Message-ID: <8m4O9.5562$BP.340@fe01>
Source record: 128489

"news.verizon.net" <sam.krusnsberg@verizon.net> wrote in message
news:f12O9.102776$4W1.75768@nwrddc02.gnilink.net...
> How should the 920 and 220 be connected together ? should I use an
extermal
> antenna tuner between the 920 and 220 and not use the internal auto tuner
in
> the 920 ?

You shouldn't need to use a tuner between the rig and amp if the amp input
is tuned properly. But you should probably use an external keying relay to
protect the rig from the amps' keying voltage/current.

> also what type of coax and length between the two ? Thanks, Sam

Type - 50 ohm
Length - Long enough to reach from the rig to the amp.

> KG4HEB, callingdx@yahoo.com
>

73 de W6DKN

5401. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 21:43:04 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E08D4E8.1050204@ieee.org>
Source record: 128490

Richard Clark wrote:
> Naive too I see. You've offered exclusive rights to a vanity rag for
> the sake of -maybe- seeing your name in print?

They don't have exclusive rights unless they decide to print it.
If they don't print it, I will go elsewhere.

> Tacit admission on your part that there is no one else interested.

Worldradio has published everything I have submitted to them. But
this might be a little too technical for their publication as it
relies on the EM wave model, the superposition principle, and the
conservation of energy principle.

> Months from now? Too
> coy by half. I suppose this takes the pressure off of the IEEE
> editors on how to approach your ground-breaking work. ;-)

It is not ground-breaking work, Richard. I was taught this stuff
at Texas A&M almost half a century ago by a host of knowledgeable
EE professors. It is apparently knowledge that has been replaced by
seductive shortcuts and lost during the last 50 years. I am just
trying to re-introduce my fellow hams to those ancient concepts and
principles. I'm sure the IEEE wouldn't be interested in stuff
I learned at Texas A&M in the 1950's.
--
cheers, CAM http://www.qsl.net/w5dxp

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5402. Re: Anyone using a Butternut vertical in the SD area?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 22:25:48 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <M95O9.157301$6k.2819631@news1.west.cox.net>
Source record: 128491

Hi Jim -- they have one at HRO -- partially assembled so you can see the
traps etc. Call first to see if it still on display --- 858-560-4900
You will have to imagine the height depending on which model you are after.
Traps are big big

Some links you may have missed:

http://members.aol.com/greg6fzh/lizzard.htm

http://members.aol.com/greg6fzh/verthf5v.htm

http://www.wsplc.com/pages/pdf/butternut.pdf

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"jkeller" <jkeller@cox.net> wrote in message
news:Dx0O9.156992$6k.2729729@news1.west.cox.net...
> I'm thinking of getting one very soon, but I'd like to take a look at it
in
> person first. Can't seem to be able to find a decent picture of one on
the
> internet including the Bencher site.
>
>
> Thanks, Jim
> WB6YXY
> Oceanside
>
>

5403. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 22:49:48 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <auaoab$r4d$1@knossos.btinternet.com>
Source record: 128492

Cecil wrote -

If I am happy with plus or minus 10% accuracy on
> the value of components, why should I not also be happy with 10%
> accuracy on my measurements?

==========

Cecil, I'm sorry to say your question illustrates my earlier point about the general lack of schooling on the subject of statistics.

Multiple errors have a nasty habit of statistically accumulating.

Apparently you are unaware of all the other many sources of error in a measuring set-up.

Do you recall your so-called 450-ohm ladder line which (you think!) actually has an impedance of 390 ohms. That makes a mess of your analysis of switched variable-length ladder-line tuners.

What you don't know is the Zo of lines used by all the other people who have attempted (unsuccessfully?) to reproduce your findings.

All you know, found purely by chance, is that YOUR set-up works.

As a side issue, the Zo of the line used in the G5RV has never been specified not even by the great man himself. All he ever said was that it should be 1/2-wavelength long somewhere in the 20m band. It's not surprising the performance of the G5RV has been a matter of dispute amongst waffling old wives and Ph.D's for many years.

Yes, I know we're only amateurs. ;o) ;o)

The Assessment and Summation of Measurement Errors is a vital subject at the very root of all Engineering disciplines and Sciences.

Or (forgive an old English phrase) am I teaching my grandmother to suck eggs?

Cec, let us all have a very pleasant Xmas and, if we can get rid of the two B's, a peaceful 2003.

Yours, Reg.

5404. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-24 23:16:20 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E08EAC4.306@ieee.org>
Source record: 128493

Reg Edwards wrote:
> Do you recall your so-called 450-ohm ladder line which (you think!) actually
> has an impedance of 390 ohms. That makes a mess of your analysis of switched
> variable-length ladder-line tuners.

Why? It works essentially the same with 300 ohm ladder-line as with
450 ohm ladder-line as with 600 ohm open-wire feedline.
--
cheers, CAM http://www.qsl.net/w5dxp

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5405. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 00:10:57 UTC
From: cprstn54zz@att.net
Message-ID: <3e08f700.92895453@news-server.optonline.net>
Source record: 128494

On Tue, 24 Dec 2002 13:33:02 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:
>If you are going to feed it with twinlead, why not put up an 80m
>dipole and feed it with 1/2WL of twinlead on 80m and 3/4WL of twinlead
>on 40m? - no tuner required.

EZNEC shows infinite SWR with 7.040MHz on an 80M dipole. . .

My SWR meter doesn't go that high. Also, I am concerned that I will
fry my radio.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

5406. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 00:44:31 UTC
From: Bill M <don'tspamme-exray@caribe.net>
Message-ID: <v0hvo1ed5s5m67@corp.supernews.com>
Source record: 128495

Ken wrote:
> On Tue, 24 Dec 2002 13:33:02 -0600, OC_CAM's Razor
> <Cecil.A.Moore@ieee.org> wrote:
>
>>If you are going to feed it with twinlead, why not put up an 80m
>>dipole and feed it with 1/2WL of twinlead on 80m and 3/4WL of twinlead
>>on 40m? - no tuner required.
>
>
> EZNEC shows infinite SWR with 7.040MHz on an 80M dipole. . .
>
> My SWR meter doesn't go that high. Also, I am concerned that I will
> fry my radio.
>
> Ken KC2JDY

3/4 wave will 'invert' the high impedance to something lower...right
down to 1:1 if you trim the feedline accurately.
-BM

5407. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 01:43:24 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E090D3C.6060600@ieee.org>
Source record: 128496

Ken wrote:
> On Tue, 24 Dec 2002 13:33:02 -0600, OC_CAM's Razor
> <Cecil.A.Moore@ieee.org> wrote:
>
>>If you are going to feed it with twinlead, why not put up an 80m
>>dipole and feed it with 1/2WL of twinlead on 80m and 3/4WL of twinlead
>>on 40m? - no tuner required.
>
> EZNEC shows infinite SWR with 7.040MHz on an 80M dipole. . .

Nope, it doesn't. With a 130ft dipole on 7.2MHz it shows SWR = 11.2:1
on the 450 ohm ladder-line and 1.25:1 on the coax. On 3.8MHz, it shows
6.6:1 on the 450 ohm ladder-line and 1.4:1 on the coax. Like I said,
no tuner needed. I know. I run that 130ft dipole on 75m and 40m with
no antenna tuner. My transmitter is perfectly happy.

> My SWR meter doesn't go that high. Also, I am concerned that I will
> fry my radio.

Do you know how to use the transmission line option in EZNEC?
If so, adjust the feedline length on 80m for a match. Then adjust
the feedline length on 40m for a match. On my dipole, the lengths
are 110ft and 92ft.
--
cheers, CAM http://www.qsl.net/w5dxp

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5408. Reflections....on the holiday

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 03:11:53 UTC
From: "J. Harvey" <JM002.Harvey_ANTI*SPAM_@Sympatico.ca>
Message-ID: <ZI9O9.3097$oW.579936@news20.bellglobal.com>
Source record: 128497

To all the regulars, periodic posters and silent lurkers of r.r.a.a:

Have a very Merry Christmas !

Jeff Harvey
VE1BLL / VE3
Ottawa

5409. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 06:13:08 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212242213.4f1d529e@posting.google.com>
Source record: 128498

cprstn54zz@att.net (Ken) wrote in message
news:<3e0888e7.64710812@news-server.optonline.net>...
> I want to put up one light inverted-V dipole-type antenna when camping
> that will handle 40M and 80M QRP.
>
> Options so far considered include traps, loading coils and a fan
> arrangement.

Last one wins as far as efficiency.
>
> Since I need to guy the pole anyway, How about running a half-wave 80M
> perpendicular a 40M half-wave dipole, with both connected to the same
> feedpoint, fed with twinlead?

If you plan on working 80 and 40 only, I would feed with coax. Will be
less loss than if you use a tuner and twinlead. You could use Cecils
ladder line method, but you will have to switch feedline lengths to
change bands. You would not have to do this with the coax, and also
the coax can lay on the ground, and also get wet. For qrp, I'd go with
the coax. Will be less trouble, and very low loss if you use decent
coax. Even rg-58 is fairly low loss for those two bands. Rg-8 or 213
would be very low loss. I use the same exact setup for portable use on
those bands if I string up dipoles. "80/40 dipoles parallel, fed with
coax". Whatever you do, if you run QRP, I would avoid using a tuner if
at all possible.
Won't need one for coax fed dipoles, or Cecils ladder line method. I
think the coax is easier to deal with though.
MK

5410. How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 06:26:12 UTC
From: Bob Cameron <bob.cameron.remove@optusnet.com.au>
Message-ID: <52jbua.hrh.ln@p400bob.lse.com.au>
Source record: 128499

Hi All

Silly question time.

For quite some time I have believed that for an antenna to work well it needs to be resonant at the operating freq. Ie no reactance at the feedpoint.

My question is how important is that really? If (for example) I start off with a quarter wave groundplane (feedpoint 37 ohms resistive) and test its "perfomance" (VSWR approx 1.5:1), then alter its length so that the conjugate impedence is 50r and test again, what "difference" is noted?

A measurement in dB would be useful?

I guess I should ask whether it changes from antenna type to antenna type? Eg quad vs dipole vs yagi etc etc.

Cheers

Bob (VK2YQA)

5411. FS: Kantronics KPC3 Plus Manual

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 10:00:08 UTC
From: "Benjamin, KB9LFZ" <KB9LFZ@arrl.net>
Message-ID: <3e097e52$1_6@news.teranews.com>
Source record: 128500
Cross-posted to: rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment

Hello All!

Have here a Kantronics KPC3 Plus manaul upfor grabs.

Good Condition for the exception of some kind of stain on bottom
right side.. about the size of a 50cent piece.

Just asking $5 and whatever it costs to get it shipped to the
address your provide.

Email me with your interest and we'll go from there.

Respectfully,
~Benjamin
de KB9LFZ {arrl.net}

5412. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 10:32:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <v0j2a3igh9fv60@corp.supernews.com>
Source record: 128501

Look up "Crossed dipoles" in the EZNEC manual index.

Roy Lewallen, W7EL

Ken wrote:
> I want to put up one light inverted-V dipole-type antenna when camping
> that will handle 40M and 80M QRP.
>
> Options so far considered include traps, loading coils and a fan
> arrangement.
>
> Since I need to guy the pole anyway, How about running a half-wave 80M
> perpendicular a 40M half-wave dipole, with both connected to the same
> feedpoint, fed with twinlead?
>
> I have tried to model this on EZNEC, but could not figure out how to
> get the split source feature to work with a 4-wire junction.
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)

5413. Re: Vs: Insulated Wire Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 10:56:33 UTC
From: KC1DI <elbc2@gwi.net>
Message-ID: <qc3j0v87l4ve15fqjc62un4f6k2kparjo0@4ax.com>
Source record: 128502

Ditto , My experience exactly -- if building a close 1W loop resonate
loop with insulated wire you will need to shorten the element length
by approximately 5% I use the formula 955/Freq Mhz = Feet and it
comes very close for the driven element.
73 Dave kc1di
PS. 1005/ FMhz= ft (reflector)

Your milage may vary depending upon wire size and type of insulation
used. but this will get you close.

On Mon, 23 Dec 2002 15:10:11 +0200, "Antti J. Huhtala" <oh2dt@sral.fi>
wrote:

>Harry, my experience is in agreement with Yuri's but in disagreement with
>Reg's.
>Building my first quad in 1965 I used loop dimensions given in the ARRL
>Handbook for _bare copper wire_. Ignorant of the difference at the time,
>I used plastic insulated wire. The quad didn't work at all - it had little
>or no
>directivity and a terrible SWR throughout the band.
>
>One week and a lot of tuning later I had shortened the loops approx. by one
>meter, ie. 5 %. Front-to-back was a respectable 25 dB and SWR was 1.
>
>Reg may be right about the efficiency of non-resonant antennas - as long as
>they are _dipoles_ or Hertz-type antennas. Neglecting to consider wire
>insulation in _parasitic_ element antennas will most likely throw element
>resonances out of the band with disastrous results in both F/B and SWR.
>
>Antti, OH2DT
>technical editor, "Radioamatï¿½ï¿½ri"
>
>"Harry MacLean VE3GRO" <macve3gro@aol.com> wrote
>news:20021222204909.16072.00000196@mb-cs.aol.com...
>> I remember W1FB mentioning this, but I forget where and the figures he
>gave. If
>> you use plastic- or rubber-insulated wire for an antenna instead of bare
>> copper, the antenna ends up being slightly shorter. Does anyone know or
>> remember by what percent? Many thanks. Harry, VE3GRO
>> Harry MacLean, VE3GRO
>> 500 Riverside Drive, London, ON N6H 2R7
>> (519) 473-1668
>

5414. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 11:49:33 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212250349.3a93d02c@posting.google.com>
Source record: 128503

Bob Cameron <bob.cameron.remove@optusnet.com.au> wrote in message
news:<52jbua.hrh.ln@p400bob.lse.com.au>...
> Hi All
>
> Silly question time.
>
> For quite some time I have believed that for an antenna to work well it
> needs to be resonant at the operating freq. Ie no reactance at the
> feedpoint.

No, it doesn't matter too much on the length. What matters is how
efficiently you can feed power to it. The difference on paper of a
full 1/2 wave dipole, and a half sized dipole are small. Maybe .3 db.
But in the real world, the smaller antenna will generally be down a
good bit due to losses in feeding the low impedance-high reactance
load. For most people using tuners and ladder line in such a case,
most of the loss is in the tuner coil.

>
> My question is how important is that really? If (for example) I start off
> with a quarter wave groundplane (feedpoint 37 ohms resistive) and test its
> "perfomance" (VSWR approx 1.5:1), then alter its length so that the
> conjugate impedence is 50r and test again, what "difference" is noted?

Depends where the increase in impedance came from. You could add
ground losses, and increase the feedpoint impedance and lose
performance. Or you could simply fold the radials down at a 45 degree
angle and see little if any difference if the ground losses stayed the
same. Maybe even a small increase due to acting more like a 1/2 wave
vertical.

> I guess I should ask whether it changes from antenna type to antenna type?
> Eg quad vs dipole vs yagi etc etc.

Not really. It's not the size, it's the efficiency or lack of it in
feeding. But saying that, I'd still prefer a full sized antenna over a
small one , all other things being equal. Even efficiency in itself
can be deceptive. Many times it's the least efficient antenna that
wins to a certain path at a certain time due to a optimum takeoff
angle for that path/time. I've seen my mobile antenna beat a 35 ft
high full size dipole on 40m at night to a path of about 900 miles.
And it did it over and over again. Wasn't a fluke. The mobile was just
putting it's power at just the right lower angles, where the dipole
wasted much power at higher angles that were not being used.
MK

5415. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 12:45:05 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E09A810.5050208@attbi.com>
Source record: 128504

Bob, your base assumption regarding antenna resonance is in error.

Basically any conductor of reasonable length will be an effective antenna. The issue is not resonance but coupling the RF to the antenna.

I use an approximate 200 for center fed doublet with 600 ohm tuned feeders for 80/75, 40 and 30 meters.

In your example the 1/4 wave ground plane would give a low angle of radiation. Increasing it's length will change the angle of radiation. It would go above the horizon. You may need a tuning network at the antenna or at your radio to couple energy into the antenna.

Put 100 watts into a 1/4 WL and get low angle radiation. Put 100 watts into a 3/8 WL and higher angle of radiation. Put 100 watts into a 1/2 WL vertical and get low angle radiation. As the length gets larger than 1/2 WL, resonant or non resonant, the antenna pattern develops lobes, gain over a dipole, at some angle.

But it does not have to be resonant.

Deacon Dave, W1MCE
Manager, Strategic Product design, electronic, retired

Bob Cameron wrote:
> Hi All
>
> Silly question time.
>
> For quite some time I have believed that for an antenna to work well it
> needs to be resonant at the operating freq. Ie no reactance at the
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> "perfomance" (VSWR approx 1.5:1), then alter its length so that the
> conjugate impedence is 50r and test again, what "difference" is noted?
>
> A measurement in dB would be useful?
>
> I guess I should ask whether it changes from antenna type to antenna type?
> Eg quad vs dipole vs yagi etc etc.
>
> Cheers
>
> Bob (VK2YQA)

>
>
>

5416. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 13:46:52 UTC
From: cprstn54zz@att.net
Message-ID: <3e09b4a8.141447015@news-server.optonline.net>
Source record: 128505

On Tue, 24 Dec 2002 13:33:02 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:
>If you are going to feed it with twinlead, why not put up an 80m
>dipole and feed it with 1/2WL of twinlead on 80m and 3/4WL of twinlead
>on 40m? - no tuner required.

The appeal of this method vs. the fan+coax is that twinlead is lighter
than coax and only one dipole is needed.

Your feedline lengths for twinlead (300 ohm) seem to be the same as
for ladder (450 ohm). Is this correct?

On your web page you show some of the adjustable ladder stubs being
loops. What about the main length? Does it have to run straight and
be high in the air? Or can it lie on the ground snake-like (without
crossing or loops coming close to each other)?

Ken KC2JDY

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

5417. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 14:22:42 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E09BF32.6070009@ieee.org>
Source record: 128506

Bob Cameron wrote:
> For quite some time I have believed that for an antenna to work well it
> needs to be resonant at the operating freq. Ie no reactance at the
> feedpoint.

That's an old wives' tale, Bob. An Extended Double Zepp is not
resonant at the operating frequency and has gain over a
resonant dipole.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5418. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 14:31:01 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <B1jO9.95088$0v3.15510@news.bellsouth.net>
Source record: 128507

I had been wondering this myself.

I measured and cut a dipole for 3.75 cps(wish we still used cps) with a vf of .95.

Borrowed an analyser, it says lowest swr is at 3.49 Mhz/1.3, z=63 ohms, L=2.84 microHenries and C=717 pf.

The freq it was cut for 3.75 Mhz, swr=4.6, z=21, l-.925 microhenries and c=1990 pf.

Wire is multi-stranded copper clad RadioShack Antenns wire,feed with 50-ohm coax (used at this time for receive only, working on restoring a Tempo One I was given with 2 more as parts). The feed system will be changed when I get ready to use the radio..

So why would the SWR and impedance be better at a lower freq then it was cut for?
--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

"Bob Cameron" <bob.cameron.remove@optusnet.com.au> wrote in message news:52jbua.hrh.ln@p400bob.lse.com.au...
>
> Hi All
>
> Silly question time.
>
> For quite some time I have believed that for an antenna to work well it
> needs to be resonant at the operating freq. Ie no reactance at the
> feedpoint.
>
> My question is how important is that really? If (for example) I start off
> with a quarter wave groundplane (feedpoint 37 ohms resistive) and test its
> "perfomance" (VSWR approx 1.5:1), then alter its length so that the
> conjugate impedence is 50r and test again, what "difference" is noted?
>
> A measurement in dB would be useful?
>
> I guess I should ask whether it changes from antenna type to antenna type?
> Eg quad vs dipole vs yagi etc etc.
>

> Cheers
>
> Bob (VK2YQA)
>
>
>

5419. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 14:38:09 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E09C2D1.4060007@ieee.org>
Source record: 128508

Ken wrote:
> The appeal of this method vs. the fan+coax is that twinlead is lighter
> than coax and only one dipole is needed.
>
> Your feedline lengths for twinlead (300 ohm) seem to be the same as
> for ladder (450 ohm). Is this correct?

It depends on the velocity factor, the higher the VF, the longer the feedline. And you probably won't find a length that is exactly resonant on your favorite 75m frequency while at the same time is exactly anti-resonant on your favorite 40m frequency. Adjusting the feedline length is one method for tuning out reactance so it doesn't matter if the dipole is resonant on a particular frequency or not. I use my 130 ft dipole on all 75m and 40m frequencies without a tuner.

> On your web page you show some of the adjustable ladder stubs being
> loops. What about the main length? Does it have to run straight and
> be high in the air? Or can it lie on the ground snake-like (without
> crossing or loops coming close to each other)?

With my 130 ft dipole, the main length is about 80 ft and there is about 6 ft of overhead in my switcher. The ladder-line length selector is variable from zero to 31 ft so I can vary the overall length of my ladder-line from 86 ft to 117 ft in one foot increments. That allows me to cover all frequencies on all HF bands without a tuner with the possible exception of 3.5-3.6 MHz.

Don't put ladder-line or twinlead on the ground. It can be coiled snake like or hung accordion style but needs to be kept about six inches away from anything conductive including itself and the ground.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5420. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 14:48:00 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E09C520.4060008@ieee.org>
Source record: 128509

Chuck/KE4ETH wrote:
> So why would the SWR and impedance be better at a lower freq then it was cut
> for?

There are lots of variables. Make your measurements in free space
and see what changes. :-) An antenna can be resonant without
having a 50 ohm feedpoint resistance and its resonant resistance
will vary with height above ground. Virtually every wire dipole
is a "cut and try" rather than a "cut and dried" experience.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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5421. Test Message - Ignore

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 15:43:32 UTC
From: Pat Whelton <pwhelton@earthlinkNOSPAM.net>
Message-ID: <EmkO9.5074$ka5.602122@newsread1.prod.itd.earthlink.net>
Source record: 128510

```
Test message .... Happy Holidays ....
```

5422. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 16:08:12 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <v0jlvc8gp4k72@corp.supernews.com>
Source record: 128511

That antenna has to be a sight to behold!

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Chuck/KE4ETH" <chuck_hawks@hotmailNOSPAMORAMA.com> wrote in message
news:B1jO9.95088$0v3.15510@news.bellsouth.net...
> I had been wondering this myself.
>
> I measured and cut a dipole for 3.75 cps(wish we still used cps) with a vf
> of .95.

5423. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 16:32:53 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3e09ddb9$0$29641$ba620e4c@news.skynet.be>
Source record: 128512

Hi Chuck,

Can you translate cps. Coz' it doesn't mean anything to people like me who have sucked metric milk from the botle while ago.

73 de ON5MJ - Jacques.

5424. Vs: Insulated Wire Question

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 17:17:46 UTC
From: "Antti J. Huhtala" <oh2dt@sral.fi>
Message-ID: <aucp77$1j0$1@nyytiset.pp.htv.fi>
Source record: 128513

Reg, as promised I'm getting back to this:

Whether the apparent mistuning was *entirely* due to use of plastic insulated wire, I don't know. There were other factors, too. If my memory serves me correctly, the ARRL Handbook dimensions were for a single band quad, and the quad I built was a "spider"-type (no-boom) 3-band quad for 20-15-10 m.
Also, Handbook's dimensions may have been for a spacing of 0.125 WL btw. radiator and reflector while I chose to use 0.1 WL spacing for good match to 60-ohm coax we used.
The quad was atop an 8-store house, but not very high above the (tile) roof. The nearest cement floor was ca. 7.5 meters (or 24.6 ft) below.

Therefore, there were factors lowering loop resonances other than just wire insulation. Which factor contributed how much, I didn't try to find out.
This experience gave me a lesson though: *always* tune your quads - unless you replicate somebody elses design with *exactly* same dimensions and materials.
The fact remains that I had to shorten the loops by 5 %, and I'm convinced that wire insulation played a major part in the process. Other antennas I've built support this notion - but then you know what Kipling said...

73, Antti, OH2DT

"Antti J. Huhtala" wrote:

> > One week and a lot of tuning later I had shortened the loops approx. by
> one
> > meter, ie. 5 %. Front-to-back was a respectable 25 dB and SWR was 1.
>
"Reg Edwards" <g4fgq.regp@btinternet.com> wrote

> ============================
>
> How do you know the apparent mistuning was due to use of plastic insulated
> wire ?
> ---
> Reg, G4FGQ
>
>

5425. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 17:37:36 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E09EC9D.7000309@attbi.com>
Source record: 128514

My gosh chuck. You have an antenna cut for 80,000,000 meters!!!

I believe you meant kcps NOT cps!! [For us ol' timers it used to be cps not Hz].

Your lowest VSWR does not occur at resonance!! If the antenna is resonant there is no inductive or capacitive term!! An antenna does not have to be resonant or does not have to have a load impedance of 50 ohms to be an effective antenna!!

The "normal equations" are estimates because the effect of local earth/ground conditions and nearby objects such as trees and power lines seriously affect the antenna performance. If your antenna is in free space, [close to 2000 feet altitude with nothing within a 2000 foot circle] the equations will be close.

The term you list as "vf" at 95% is more correctly the effect of length to diameter ratio which directly contributes to the self inductance of the antenna wire. A non-parasitic antenna does not care about wire insulation. A parasitic antenna, such as a Yagi-Uda or a quad, does care because the insulation is in the excitation path for the parasitic elements and makes the path a dual capacitor [one with free space dielectric and the second with the insulation dielectric].

So, what do you have?? Answer, an antenna that is close to what you want and close enough to start trimming or stretching as required.

Deacon Dave, W1MCE [for almost 50 years]
Manager, Strategic Product Design, Electronic, retired
Textron Systems

Chuck/KE4ETH wrote:
> I had been wondering this myself.
>
> I measured and cut a dipole for 3.75 cps(wish we still used cps) with a vf
> of .95.
>
> Borrowed an analyser, it says lowest swr is at 3.49 Mhz/1.3, z=63 ohms,
> L=2.84 microHenries and C=717 pf.
>
> The freq it was cut for 3.75 Mhz, swr=4.6, z=21, l-.925 microhenries and
> c=1990 pf.
>
> Wire is multi-stranded copper clad RadioShack Antenns wire,feed with 50-ohm
> coax (used at this time for receive only, working on restoring a Tempo One I
> was given with 2 more as parts). The feed system will be changed when I get

> ready to use the radio..
>
>
> So why would the SWR and impedance be better at a lower freq then it was cut
> for?
> --
> 73,
> Chuck
> KE4ETH
> USA-NA
> Remove the obvious from Email.
>
>
>
> "Bob Cameron" <bob.cameron.remove@optusnet.com.au> wrote in message
> news:52jbua.hrh.ln@p400bob.lse.com.au...
>
>>Hi All
>>
>>Silly question time.
>>
>>For quite some time I have believed that for an antenna to work well it
>>needs to be resonant at the operating freq. Ie no reactance at the
>>feedpoint.
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>>My question is how important is that really? If (for example) I start off
>>with a quarter wave groundplane (feedpoint 37 ohms resistive) and test its
>>"perfomance" (VSWR approx 1.5:1), then alter its length so that the
>>conjugate impedence is 50r and test again, what "difference" is noted?
>>
>>A measurement in dB would be useful?
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>>I guess I should ask whether it changes from antenna type to antenna type?
>>Eg quad vs dipole vs yagi etc etc.
>>
>>Cheers
>>
>>Bob (VK2YQA)
>>
>>
>>
>
>
>
>

5426. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 18:15:31 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <qvoO9.95610$0v3.53473@news.bellsouth.net>
Source record: 128375

Thanks to all that replied. It does answer my question and yes, I meant 3750 kcps (KHz). Fat fingers missed pushing the M or K.

Yea, I need to trim and when I get ready for transmitting I plan on replacing the coax with twinlead and a tuner.

Have a good holiday and a good New Year.

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

"Chuck/KE4ETH" <chuck_hawks@hotmailNOSPAMORAMA.com> wrote in message news:B1jO9.95088$0v3.15510@news.bellsouth.net...
> I had been wondering this myself.
>
> I measured and cut a dipole for 3.75 cps(wish we still used cps) with a vf
> of .95.
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> Borrowed an analyser, it says lowest swr is at 3.49 Mhz/1.3, z=63 ohms,
> L=2.84 microHenries and C=717 pf.
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> Wire is multi-stranded copper clad RadioShack Antenns wire,feed with 50-ohm
> coax (used at this time for receive only, working on restoring a Tempo One I
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> ready to use the radio..
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>
> So why would the SWR and impedance be better at a lower freq then it was cut
> for?
> --
> 73,
> Chuck
> KE4ETH
> USA-NA

> Remove the obvious from Email.
>
>
>
> "Bob Cameron" <bob.cameron.remove@optusnet.com.au> wrote in message
> news:52jbua.hrh.ln@p400bob.lse.com.au...
> >
> > Hi All
> >
> > Silly question time.
> >
> > For quite some time I have believed that for an antenna to work well it
> > needs to be resonant at the operating freq. Ie no reactance at the
> > feedpoint.
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> > with a quarter wave groundplane (feedpoint 37 ohms resistive) and test
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> > Eg quad vs dipole vs yagi etc etc.
> >
> > Cheers
> >
> > Bob (VK2YQA)
> >
> >
> >
>
>
>

5427. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 18:58:17 UTC
From: n2ey@aol.com
Message-ID: <20021225135817.03091.00000355@mb-cc.aol.com>
Source record: 128517

In article <3E08B8B4.9020003@ieee.org>, OC_CAM's Razor <Cecil.A.Moore@ieee.org>
writes:

>Richard Clark wrote:
>> Tell us about copouts and editors, Cecil.
>
>Here's the exact cut and pasted email from QEX:
>
>"You can post it to your Web site now but that may affect
>our decision whether to publish it in print."

Makes perfect sense to me. Why should QEX publish something that is available
free on the 'net? They might as well just publish the link.
>
>I assume that is standard practice among magazines. After
>all, why should they choose to publish something that
>has already been published previously elsewhere?

Exactly!

>They
>also warn against submitting the same potential article
>to more than one magazine at a time.

Why not? What if you get multiple acceptances?

73 de Jim, N2EY

5428. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 18:58:18 UTC
From: n2ey@aol.com
Message-ID: <20021225135818.03091.00000356@mb-cc.aol.com>
Source record: 128515

In article <3E0882F9.5010506@ieee.org>, OC_CAM's Razor <Cecil.A.Moore@ieee.org>
writes:

>N2EY wrote:
>> OC_CAM's Razor <Cecil.A.Moore@ieee.org> writes:
>> Where did Einstein say he "rides the crest of a wave traveling at the speed
>of
>> light" ?
>
>That's how the Discovery Channel said he envisioned what might happen
>to things traveling at the speed of light when they encounter things
>at rest.

So Einstein never said he actually traveled that way. Thanks for admitting your
misquote, Cecil.

>A lot of us have surfed on water waves so envisioning surfing
>on an electromagnetic wave can be an interesting and enlightening thought
>experiment.

Maybe. Envisioning something and actually doing it are very different things.

>> More probably, he was just pulling your leg, Cecil.
>
>I know he was pulling our legs when he said, "God doesn't roll dice."

How do you know? Maybe God doesn't roll dice. I don;t pretend to know the
answer to that one.

>Was it Schrï¿½dinger who said, "Not only does God roll dice, but
>He rolls them in the dark."?

Actually, I heard it was a description of a discussion of a thought experiment
involving Schrï¿½dinger's cat riding a surfboard on the crest of a wave made of
anti-photons. At least that's what somebody told me they recalled from a TV
show.

73 de Jim, N2EY

>
>

5429. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 18:58:19 UTC
From: n2ey@aol.com
Message-ID: <20021225135819.03091.00000357@mb-cc.aol.com>
Source record: 128516

In article <3E066B2F.1090300@ieee.org>, OC_CAM's Razor <Cecil.A.Moore@ieee.org>
writes:

>N2EY wrote:
>> Actually, if one is traveling as described, one has no time at all to think
>> because time is not passing.
>
>Einstein didn't seem to have any trouble thinking about it and
>describing it to the rest of us.

Thinking about doing a thing and describing it is VERY different from actually
doing the thing.

73 de Jim, N2EY

5430. Vs: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 19:05:46 UTC
From: "Antti J. Huhtala" <oh2dt@sral.fi>
Message-ID: <aucvhm$4sb$1@nyytiset.pp.htv.fi>
Source record: 128518

"Dave Shrader" <david.shrader@attbi.com> wrote in
news:3E09EC9D.7000309@attbi.com...
> My gosh chuck. You have an antenna cut for 80,000,000 meters!!!
>
> I believe you meant kcps NOT cps!! [For us ol' timers it used to be cps
> not Hz].
>
I believe he meant Mcps or Mc/s but that's beside the point.

> Your lowest VSWR does not occur at resonance!! <clip>

Would you care to elaborate on that, Dave? I seem to have believed that lowest (V)SWR _does_ occur at resonance. Any reactance due to non-resonant length tends to increase (V)SWR in a feedline.

It is, however, easy to confuse basic facts by measuring SWR at the *low* end of the line. In the words of someone who decades ago wrote in QST on measuring SWR: "A bridge can only measure what it sees." Usually we measure - not the resonance of an antenna - but the impedance at the "shack end" of the line which includes the transformer action of the line. Bridge imperfections add to the confusion - with the result that the antenna seems to be resonant somewhere else than the frequency it was cut for.

Otherwise I tend to agree with Dave.

73, Antti, OH2DT [for 40+ years]

5431. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 19:15:38 UTC
From: BICisfag <ll@jj.com>
Message-ID: <3E0A03D9.E3C8F097@jj.com>
Source record: 128369

Wait a minute. You have a 130' dipole and feed it with
2 seperate 450 ohm runs 110' and 92' and its resonant?

Whats on the end of the 450 that runs into the house?

OC_CAM's Razor wrote:

> Ken wrote:
> > On Tue, 24 Dec 2002 13:33:02 -0600, OC_CAM's Razor
> > <Cecil.A.Moore@ieee.org> wrote:
> >
> >>If you are going to feed it with twinlead, why not put up an 80m
> >>dipole and feed it with 1/2WL of twinlead on 80m and 3/4WL of twinlead
> >>on 40m? - no tuner required.
> >
> > EZNEC shows infinite SWR with 7.040MHz on an 80M dipole. . .
>
> Nope, it doesn't. With a 130ft dipole on 7.2MHz it shows SWR = 11.2:1
> on the 450 ohm ladder-line and 1.25:1 on the coax. On 3.8MHz, it shows
> 6.6:1 on the 450 ohm ladder-line and 1.4:1 on the coax. Like I said,
> no tuner needed. I know. I run that 130ft dipole on 75m and 40m with
> no antenna tuner. My transmitter is perfectly happy.
>
> > My SWR meter doesn't go that high. Also, I am concerned that I will
> > fry my radio.
>
> Do you know how to use the transmission line option in EZNEC?
> If so, adjust the feedline length on 80m for a match. Then adjust
> the feedline length on 40m for a match. On my dipole, the lengths
> are 110ft and 92ft.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
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> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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5432. 40m dipole on 15 meters???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 19:19:22 UTC
From: BICisfag <ll@jj.com>
Message-ID: <3E0A04BA.2393E6AC@jj.com>
Source record: 128370

My 40 m dipole seems to work as good as anything I have
on RX on 15 m.
It is coax fed but my 989 MFJ tuner won't tune the damn
thing very good at all.
Whats up with that. I thought it was a 3rd harmonic and should
tune easily.

5433. CAM? 80/40 m

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 19:34:24 UTC
From: BICisfag <ll@jj.com>
Message-ID: <3E0A0840.D3FFD1F4@jj.com>
Source record: 128371

I have a seperate 80 and 40 m dipole.
I think I want to do a ladder line job to
make a combo 80/40 m dipole similiar to
what you did. (40 m dipole is too close to
where I'm going to have a beam)
80 m dipole is 125' long.
Can I solder 2 seperate lengths of 450 ohm to
80 m dipole (each 450 ohm length cut for 80 and
40), have a 1:1 BALUN on each of the 450 runs,
then coax into the house.
Then continue to use the antenna switch in the to
switch between runs.
Will this be about as efficient as what I have now?
Both are fed with coax now.
Can I lay the ladder line directly on the asphalt roof?

Will it be as broadband as what I have?

5434. Antenna Tuners & Active Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 20:04:59 UTC
From: n5kzw@arrl.net
Message-ID: <3e0a0d34.238792294@news.ev1.net>
Source record: 128372

My father-in-law (W9OIB) is in an assisted living facility. He likes to listen to what's going on on the bands even if he can't transmit. (I have him set up with an indoor random-wire antenna and there is a skilled nursing facilities with all sorts of monitoring equipment right above his apartment.)

He does not get very good reception, and I was thinking that the MFJ Active Antenna would improve his reception. My concern is that he tends to push the buttons on the front panel of his TS-450AT more or less at random and I worry that the small signal genertated by the antenna tuner might let the smoke out of the active components in the antenna. We have disconnected his microphone and key so he shouldn't be able to generate any signal stronger than that generated by the antenna tuner.

Can anyone out there offer any experience or advice?

Thanks,
Ed - N5KZW

5435. Re: 40m dipole on 15 meters???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 20:21:10 UTC
From: Allodoxaphobia <nobody@jonz.net>
Message-ID: <slrnb0k4pl.g1k.nobody@animas.frontier.net>
Source record: 128373

On Wed, 25 Dec 2002 11:19:22 -0800, BICisfag hath writ:
> My 40 m dipole seems to work as good as anything I have
> on RX on 15 m.
> It is coax fed but my 989 MFJ tuner won't tune the damn
> thing very good at all.
> Whats up with that. I thought it was a 3rd harmonic and should
> tune easily.

Shouldn't need to tune it. I was quite happy in my novice days
using just a 40M Inverted Vee for both 40M and 15M.
Later -- with an Advanced Class ticket -- I completed 15M WAS SSB
with the same piece of wire.
Try it w/o any steenkin' tuner.

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

5436. Re: Antenna Tuners & Active Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 21:20:12 UTC
From: "Dee D. Flint" <deehays@qix.net>
Message-ID: <gipO9.10174$4j5.5917769@newssvr28.news.prodigy.com>
Source record: 128374

There is also a transmit button on the front of the transceiver for those folks that don't like to use semi-breakin or full-breakin for CW. If he presses that, he will get a full strength signal output depending on the setting for the output power.

It might be best to buy him a good quality shortwave receiver only.

Dee Flint, N8UZE

"Ed Bailen" <n5kzw@arrl.net> wrote in message news:3e0a0d34.238792294@news.ev1.net...
> My father-in-law (W9OIB) is in an assisted living facility. He likes
> to listen to what's going on on the bands even if he can't transmit.
> (I have him set up with an indoor random-wire antenna and there is a
> skilled nursing facilities with all sorts of monitoring equipment
> right above his apartment.)
>
> He does not get very good reception, and I was thinking that the MFJ
> Active Antenna would improve his reception. My concern is that he
> tends to push the buttons on the front panel of his TS-450AT more or
> less at random and I worry that the small signal genertated by the
> antenna tuner might let the smoke out of the active components in the
> antenna. We have disconnected his microphone and key so he shouldn't
> be able to generate any signal stronger than that generated by the
> antenna tuner.
>
> Can anyone out there offer any experience or advice?
>
> Thanks,
> Ed - N5KZW

5437. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 21:24:19 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0A2203.8040404@ieee.org>
Source record: 128376

N2EY wrote:
> Thinking about doing a thing and describing it is VERY different from actually
> doing the thing.

That's nice but nobody said anything about actually doing it
anywhere except in one's mind.
--
cheers, CAM http://www.qsl.net/w5dxp

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5438. Re: Vs: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 21:28:19 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0A22F3.80109@ieee.org>
Source record: 128377

Antti J. Huhtala wrote:
> Would you care to elaborate on that, Dave? I seem to have believed that
> lowest (V)SWR _does_ occur at resonance. Any reactance due to non-resonant
> length tends to increase (V)SWR in a feedline.

Measured at the transmitter, I have seen the lowest 50 ohm SWR occur
where some reactance exists and the 50 ohm SWR be slightly higher at
the purely resistive point. It seems to happen under conditions where
the resistance is changing faster than the reactance.
--
cheers, CAM http://www.qsl.net/w5dxp

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5439. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 21:32:31 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0A23EF.6020605@ieee.org>
Source record: 128378

BICisfag wrote:
> Wait a minute. You have a 130' dipole and feed it with
> 2 seperate 450 ohm runs 110' and 92' and its resonant?

I hope I didn't say that. :-) I feed it with 92' on 40m
and add 18' for 75m for a total of 92'+18'=110' on 75m.

> Whats on the end of the 450 that runs into the house?

A 1:1 choke into 50 ohm coax. Have you taken a look at
it on my web page?
--
cheers, CAM http://www.qsl.net/w5dxp

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5440. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 21:35:00 UTC
From: whagen6@cs.com
Message-ID: <20021225163500.18487.00000265@mb-ft.news.cs.com>
Source record: 128379

a non-resonant antenna has reactance, which creates standing waves on the transmission line, and thus lots of energy is then stored in the capacity and inductance, which creates the standing waves. once this energy is built up, it then passes to the antenna and radiates. In a perfect world of no resistance in the line, all the energy would then be radiated, especially if the line is properly coupled to the transmitter. However, there is resistance in the line, and therefore the more energy the is stored there, the higher the voltage of the stored energy, thus the higher the current of the stored energy as it oscillates between the reactances of the line, and with a higher current there is a larger amount of energy loss due to increased resistive heating. This is lost energy and not radiated. Thus, a resonant antenna and a line matched to its impedance will be the most efficient, and non resonant antenna will be less efficient due to increased swr on a line, unless the line is matched to the impedence of the antenna and properly coupled to the transmitter.

5441. Re: CAM? 80/40 m

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 21:41:56 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0A2624.9080801@ieee.org>
Source record: 128380

BICisfag wrote:
> Can I solder 2 seperate lengths of 450 ohm to
> 80 m dipole (each 450 ohm length cut for 80 and
> 40), have a 1:1 BALUN on each of the 450 runs,
> then coax into the house.

You have the wrong idea. Ladder-line is added to the
92' 40m run to get the 110' 75m run.

> Then continue to use the antenna switch in the to
> switch between runs.

Use your switch to switch in the extra length of ladder-line,
not separate runs of ladder-line.

> Will this be about as efficient as what I have now?
> Both are fed with coax now.

You probably won't be able to tell the difference in efficiency
but the ladder-line without a tuner will be more efficient than
coax with a tuner.

> Can I lay the ladder line directly on the asphalt roof?

Not a good idea. Ladder-line should be kept about six inches
away from anything that has any conductivity. There may be
metal directly under the asphalt.

> Will it be as broadband as what I have?

My resolution is one foot increments so I don't worry about bandwidth.
Compare the bandwidths on my web page to yours now.
--
cheers, CAM http://www.qsl.net/w5dxp

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5442. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 21:46:47 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <bHpO9.504629$QZ.75324@sccrnsc02>
Source record: 128381

```
CPS = Cycles Per Second = Hertz
"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message
news:3e09ddb9$0$29641$ba620e4c@news.skynet.be...
> Hi Chuck,
>
> Can you translate cps. Coz' it doesn't mean anything to people like me who
> have sucked metric milk from the botle while ago.
>
> 73 de ON5MJ - Jacques.
>
>
```

5443. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 21:54:57 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0A2931.3050905@ieee.org>
Source record: 128382

William F. Hagen wrote:
> Thus, a resonant antenna and a line matched to
> its impedance will be the most efficient, and non resonant antenna will be less
> efficient due to increased swr on a line, unless the line is matched to the
> impedence of the antenna and properly coupled to the transmitter.

You left out feedline losses. Losses with open-wire 600 ohm transmission line
may be less with a "high" SWR than losses with coax in a matched system.

For instance, consider 100 ft of RG-58 feeding a 50 ohm dipole on 10m.
The loss will be about 2.7 dB. The loss in 100 ft of open-wire line with
an SWR of 10:1 on 10m is considerably less than 1 dB. You just cannot say
that "a resonant antenna and a line matched to its impedance will be the
most efficient".
--
cheers, CAM http://www.qsl.net/w5dxp

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5444. Vs: Vs: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 22:01:22 UTC
From: "Antti J. Huhtala" <oh2dt@sral.fi>
Message-ID: <aud9qu$9kj$1@nyytiset.pp.htv.fi>
Source record: 128383

I admit that, CAM. However, the usual case is the half-wave dipole or
derivations thereof, and reactance changes much more rapidly than
resistance, as a function of frequency. In _very_ small antennas, for
example, curious things may indeed happen.

Thank you for your remarks

Antti, OH2DT

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E0A22F3.80109@ieee.org...
> Antti J. Huhtala wrote:
> > Would you care to elaborate on that, Dave? I seem to have believed that
> > lowest (V)SWR _does_ occur at resonance. Any reactance due to
non-resonant
> > length tends to increase (V)SWR in a feedline.
>
> Measured at the transmitter, I have seen the lowest 50 ohm SWR occur
> where some reactance exists and the 50 ohm SWR be slightly higher at
> the purely resistive point. It seems to happen under conditions where
> the resistance is changing faster than the reactance.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
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5445. WAS award and ARRL membership??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 22:29:41 UTC
From: BICisfag <ll@jj.com>
Message-ID: <3E0A3155.9E43C3FF@jj.com>
Source record: 128385

Do you have to be a ARRL member to be able to get a
WAS award?

5446. Re: Vs: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 22:29:49 UTC
From: ryeburn@sfu.caz
Message-ID: <ryeburn-2512021429490001@bni030qny8kc.bc.hsia.telus.net>
Source record: 128384

In article <3E0A22F3.80109@ieee.org>, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

> Antti J. Huhtala wrote:
> > Would you care to elaborate on that, Dave? I seem to have believed that
> > lowest (V)SWR _does_ occur at resonance. Any reactance due to non-resonant
> > length tends to increase (V)SWR in a feedline.
>
> Measured at the transmitter, I have seen the lowest 50 ohm SWR occur
> where some reactance exists and the 50 ohm SWR be slightly higher at
> the purely resistive point. It seems to happen under conditions where
> the resistance is changing faster than the reactance.

You would even observe this at the antenna terminals, as opposed to at the transmitter end of the transmission line. Suppose you have a half-wave centre-fed dipole at a certain frequency. Its reactance is zero at that frequency and its resistance is a slowly increasing function of frequency, passing through say 60 ohms (making an assumption about its height above ground) at that frequency but a little less than 60 ohms below that frequency and a little more above that frequency. Meanwhile the rectance goes capacitive below the resonant frequency and inductive above it. To a first approximation both the resistance and the reactance change linearly with frequency, near the resonant frequency.

Make up some numbers consistent with the above comments. Take a Smith chart and plot the impedance as a function of frequency. You will see that as a result of the slowly changing resistive component, the graph is *not quite* tangent to the relevant circle and thus the minimum SWR occurs slightly off of the resonant frequency.

Of course in practice the effect is very small, but it is there.

David, ex-W8EZE, and still a geometrer at heart though retired from the SFU Math Department

--
David or Jo Anne Ryeburn
ryeburn@sfu.caz
To send e-mail, remove the letter "z" from this address.

5447. Re: RFI problems

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 23:11:34 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <nfek0vgggjk379v4fcu0jav2s37splia2g@4ax.com>
Source record: 128386

On Mon, 23 Dec 2002 19:24:57 -0600, "Dan/W4NTI"
<w4nti@NOSPAMmindspring.com> wrote:

>I found the only way to cure the problem is to move into a neighborhood that
>has no computers...hi.
>
>The speakers sold are trash. For some reason I have some that DO NOT GET
>BLASTED. And I run them right in the shack on my puter. The name on them
>is JUSTer Multimedia...AC691N is the model number. Got them years ago on a
>Prokek computer.

Two of the computers here in the shack have plain old radio shack
speakers, one of which has an additional base speaker. A third
computer has an amplifer and two speakers in the same cabinet. (the
kind that set under a monitor). None of the three pick up any
interferrence on any band 160 meter through 440 Mhz. I can fire up an
HT at 5 watts right next to the computers, or speakers and still have
no interferrence. However the computers make it a bit difficult to
hear any thing on 147.00 when the HT is close to them.

BTW, I run the legal limit on 160 through 10 meters, 100 watts on 6,
50 on 2-meters, and 35 on the 440 band.

Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)
>
>Two years later we bought another Protek for the wife. Her speakers get
>blasted all to pieces. She just turns them off.
>
>No problem until the neighbor across the way got a puter...you guessed
>it...blasted the speakers.. I tried it all...bypass, beads, moving wires.
>etc. I finally switched speakers with him and for 2 years it was no sweat.
>He then decided to sell his house. So I bought it to keep another computer
>out of my RF field....grin. I did buy the house tho.
>"Alex" <alex.draper1@rogers.com> wrote in message
>news:nNuN9.43155$F2h1.7737@news01.bloor.is.net.cable.rogers.com...
>> Todays amplified computer speakers seem to pickup any little bit of rf. I
>> can take care of my own with shielding and grounding but everyone else
>> around me has computers. Any thoughts about antenna designs that will
>> minimize rfi? The real question to debate is which antenna will work
>best?
>>
>>
>

5448. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-25 23:27:16 UTC
From: jder8745@aol.com
Message-ID: <20021225182716.01830.00000222@mb-fq.aol.com>
Source record: 128387

Howdy, All

Some of the best antennas are NOT resonant. The 5/8 lambda vertical immediately comes to mind.

As a mobile antenna it has gain over a 1/4 lambda vertical which can be said to be resonant.

Put two of them together to get a 1.25 lambda doublet and you have an antenna which is not resonant and has gain over a 1/2 lambda dipole or a full wave doublet.

In short an antenna does not have to be resonant to do the job and some of the best antenna designs are not resonant.

73 de Jack, K9CUN

5449. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 00:52:50 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0A52E2.1080102@ieee.org>
Source record: 128388

JDer8745 wrote:
> Put two of them together to get a 1.25 lambda doublet and you have an antenna
> which is not resonant and has gain over a 1/2 lambda dipole or a full wave
> doublet.

Also known as an Extended Double Zepp.
--
cheers, CAM http://www.qsl.net/w5dxp

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5450. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 01:01:00 UTC
From: whagen6@cs.com
Message-ID: <20021225200100.15436.00000301@mb-ci.news.cs.com>
Source record: 128389

yes you are absoltely right, thanks for pointing out what I left out. My arguement assumes only one type of line being compared with a resonant vs non-resonant antenna.
Because the resistance is so much higher in the 100 foot long 600 ohm line, the 10/1 swr loss is less because the current is less compared to the resonant 50 ohm system.
The system with the 50 ohm dipole, and 600 ohm line, the dipole being 50 ohms I assume is because it is resonant, thus having no reactance, wouldnt that be more efficient than say where the line was still 100 feet of 600 ohm line, and the dipole was not resonant, which would increase the swr due to increased reactance, or could the off resonant antenna be cut so the sum of resistance and reactance = 600 ohms, and be more efficient than the resonant 50 ohm dipole? Also, using a stacked dipole, which at resonance could be 600 ohms, wouldnt that be the most efficient system with the 600 ohm line?
And, here is a question that I dont have an answer to, maybe you can help me here, if the antenna is resonant and at 50 ohms, so no reactance, and one uses a halfwave length of 600 ohm line, so that the antenna impedence of 50 ohms is seen at the other end of the 600 ohm line, is there a swr of greater than 1/1 on the line?

Is it far to state that, a resonant antenna is always more efficient than a non-resonant antenna when the transmission line of the same impedence is used for both, or not fair to state because a transmission line can be found to match the impedance of the non-resonant antenna, and with proper coupling to the transmitter, will be more efficient? And, if the length is kept the same, the line that matches the non-resonant antenna would then have a higher swr with the resonant antenna, and would be more lossy, however if the length is not kept the same, then some length would transform the impedance to the impedance of the transmitter, and if it is true that there is no swr on a line length that transforms the impedance from the antenna impedance to the transmitter impedance, then wouldnt both a resonant and non resonant antenna have the same efficiency?

5451. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 01:40:41 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E0A5DDC.7010301@attbi.com>
Source record: 128390

A 130 foot dipole is resonant on 3.6 MHz [1/2 wavelength], 7.2 MHZ [1 wavelength], 10.8 MHz [3/2 wavelength], 14.4 MHz [2 wavelengths], etc as long as it is an integral multiple of 1/2 WL it is resonant. It is a low impedance load on the 1st, 3rd, 5th and all odd multiples of 1/2 wavelength and high impedance on the even multiples of a full wavelength.

Antenna resonance is ANTENNA RESONANCE and is determined by the characteristics of the ANTENNA!! [Feed system is excluded].

A quick calculation, not rigorous, indicates that the antenna system is resonant and operating with a feedpoint VSWR of about 3:1 or a little higher on 3.6 MHz. Most rigs will easily achieve a match. [The unused transmission line [92 feet] introduces a shunt capacitive reactance across the load of between 160 and 200 ohms]. For 7.2 MHz the 110 foot line is 1 WL and reflects a high resistance on 7.2 MHz while the 92 foot line converts the high feedpoint resistance to a lower value. A quick non rigorous calculation indicates a feedpoint VSWR of 2.2:1 to 3:1 on 7.2 MHZ.

For those who are LOW VSWR addicts this is terrible!! But, it is a resonant antenna with a stub feed system that should work!!

Would I use it?? No! Too complex. I prefer a simple center fed doublet with tuned feeders.

Deacon Dave, W1MCE

BICisfag wrote:
> Wait a minute. You have a 130' dipole and feed it with
> 2 seperate 450 ohm runs 110' and 92' and its resonant?
>
> Whats on the end of the 450 that runs into the house?
>
>
>
> OC_CAM's Razor wrote:
>
>
>>Ken wrote:
>>
>>>On Tue, 24 Dec 2002 13:33:02 -0600, OC_CAM's Razor
>>><Cecil.A.Moore@ieee.org> wrote:
>>>
>>>
>>>>If you are going to feed it with twinlead, why not put up an 80m
>>>>dipole and feed it with 1/2WL of twinlead on 80m and 3/4WL of twinlead

>>>>on 40m? - no tuner required.
>>>
>>>EZNEC shows infinite SWR with 7.040MHz on an 80M dipole. . .
>>
>>Nope, it doesn't. With a 130ft dipole on 7.2MHz it shows SWR = 11.2:1
>>on the 450 ohm ladder-line and 1.25:1 on the coax. On 3.8MHz, it shows
>>6.6:1 on the 450 ohm ladder-line and 1.4:1 on the coax. Like I said,
>>no tuner needed. I know. I run that 130ft dipole on 75m and 40m with
>>no antenna tuner. My transmitter is perfectly happy.
>>
>>
>>>My SWR meter doesn't go that high. Also, I am concerned that I will
>>>fry my radio.
>>
>>Do you know how to use the transmission line option in EZNEC?
>>If so, adjust the feedline length on 80m for a match. Then adjust
>>the feedline length on 40m for a match. On my dipole, the lengths
>>are 110ft and 92ft.
>>--
>>cheers, CAM http://www.qsl.net/w5dxp
>>
>>>>-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
>>http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
>>-----== Over 80,000 Newsgroups - 16 Different Servers! =-----
>
>

5452. Vs: Vs: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 01:57:12 UTC
From: "Antti J. Huhtala" <oh2dt@sral.fi>
Message-ID: <audnl3fls1@nyytiset.pp.htv.fi>
Source record: 128392

OK, thanks, David. Always glad to learn something.

In my antenna & feedline programs I've used the following formulas for
getting at SWR:

ro = (Zl - Zc)/(Zl+Zc) ; for complex reflection coefficient ro

where Zl = complex load impedance (antenna) and Zc = complex characteristic
impedance of feedline.

From this

SWR = (1+ro)/(1-ro) ; where ro is the complex reflection
coefficient

The formulas become somewhat more cumbersome if impedances are written in
the usual (R+jX) form, and almost formidable if complex divisions are
written "out". A computer is just the thing for doing that.
Anyway, on the basis of the above, SWR will always increase if reactance is
added to a resistive (resonant) feedpoint impedance PROVIDED that the
resistive part remains the same. If it doesn't, a small shift in minimum SWR
will result.
The shift is, like you say, small, and does not explain why a dipole cut for
3.75 MHz should show a resonance at 3.49 MHz. Other factors are at play here
but they were already treated earlier.

73, Antti, OH2DT

"David or Jo Anne Ryeburn" <ryeburn@sfu.caz> wrote in message
news:ryeburn-2512021429490001@bni030qny8kc.bc.hsia.telus.net...
>
> You would even observe this at the antenna terminals, as opposed to at the
> transmitter end of the transmission line. Suppose you have a half-wave
> centre-fed dipole at a certain frequency. Its reactance is zero at that
> frequency and its resistance is a slowly increasing function of frequency,
> passing through say 60 ohms (making an assumption about its height above
> ground) at that frequency but a little less than 60 ohms below that
> frequency and a little more above that frequency. Meanwhile the rectance
> goes capacitive below the resonant frequency and inductive above it. To a
> first approximation both the resistance and the reactance change linearly
> with frequency, near the resonant frequency.
>
> Make up some numbers consistent with the above comments. Take a Smith
> chart and plot the impedance as a function of frequency. You will see that
> as a result of the slowly changing resistive component, the graph is *not
> quite* tangent to the relevant circle and thus the minimum SWR occurs
> slightly off of the resonant frequency.

>
> Of course in practice the effect is very small, but it is there.
>
> David, ex-W8EZE, and still a geometrer at heart though retired from the
> SFU Math Department
>
> --
> David or Jo Anne Ryeburn
> ryeburn@sfu.caz
> To send e-mail, remove the letter "z" from this address.

5453. Re: Vs: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 01:57:16 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E0A61BF.6040807@attbi.com>
Source record: 128391

Antii,

A center fed antenna one wavelength long is RESONANT but exhibits a radiation resistance of several thousand ohms and a VSWR, in a 50 ohm system, of > 40:1.

Resonance occurs EVERY 1/2 WL!! and is independent of VSWR.

As 'Hams' we think in terms of 1/2 WL antennas. But resonance is by definition that case when the radiation resistance is: Rr = R + j0. R can be any real [mathmatically real] value from 0.00001 to 100,000 ohms or any credible value.

My 20 meter mobile antenna has a radiation resistance of 18 ohms at 14.2 MHz. That is a true VSWR of 2.77:1. But at 14.05 MHz it shows a VSWR of 1.3:1. The additional capacitive reactance caused by the short antenna increases the apparent load impedance to something closer to what the transmission line wants to see.

Deacon Dave, W1MCE

Antti J. Huhtala wrote:
> "Dave Shrader" <david.shrader@attbi.com> wrote in
> news:3E09EC9D.7000309@attbi.com...
>
>>My gosh chuck. You have an antenna cut for 80,000,000 meters!!!
>>
>>I believe you meant kcps NOT cps!! [For us ol' timers it used to be cps
>>not Hz].
>>
>
> I believe he meant Mcps or Mc/s but that's beside the point.
>
>
>>Your lowest VSWR does not occur at resonance!! <clip>
>
>
> Would you care to elaborate on that, Dave? I seem to have believed that
> lowest (V)SWR _does_ occur at resonance. Any reactance due to non-resonant
> length tends to increase (V)SWR in a feedline.
>
> It is, however, easy to confuse basic facts by measuring SWR at the *low*
> end of the line. In the words of someone who decades ago wrote in QST on
> measuring SWR: "A bridge can only measure what it sees." Usually we
> measure - not the resonance of an antenna - but the impedance at the "shack
> end" of the line which includes the transformer action of the line.

> Bridge imperfections add to the confusion - with the result that the antenna
> seems to be resonant somewhere else than the frequency it was cut for.
>
> Otherwise I tend to agree with Dave.
>
> 73, Antti, OH2DT [for 40+ years]
>
>

5454. New simple LC filter design program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 02:08:13 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <audoad$6tv$1@knossos.btinternet.com>
Source record: 128393

PROGRAM "LPF_HPF.exe"

Most filters consist of one or more cascaded, simple, 3-component, T or Pi sections and are used in a multitude of applications where pass-band ripple, frequencies of infinite attenuation in the stop-band, exact impedances matches, etc., are not of consequence.

This easy to use program calculates component values of high-pass, low-pass, T and Pi, basic filter sections. Internal filter loss is neglected. Operating inconveniences which may be present in more complicated programs can be avoided.

Filter response vs frequency is in terms of dB insertion loss between Ro terminations for 1 to 5 cascaded sections. Frequency range is from audio to VHF.

Download in a few seconds program LPF_HPF.exe from website below and run immediately.

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

5455. Re: 40m dipole on 15 meters???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 02:16:44 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E0A664F.6030508@attbi.com>
Source record: 128394

It should if ...

1) it is resonant at or below 7.1 MHz
2) it is relatively free of surrounding obstructions trees etc.
3) it is relatively high
4) it is truly cut for 7.1 MHz or lower, not pruned to work on your
favorite frequency
5) the antenna load impedance is no longer ~50 ohms on 21 MHz it
increases to something in the 100 ohm range.
6) etc.

Conclusion: a 7.2 MHz antenna has a high feedpoint impedance with
significant reactance at 21.3 MHz. EZNEC calculates a VSWR of 7:1 at
21.45 MHz for a 7.2 MHz dipole.

So, a 7.0 to 7.1 MHz dipole will show a VSWR of 2:1 or greater in a 50
ohm system when operated at 21 MHz. A 7.2 MHz dipole shows a high VSWR
in a 50 ohm system because resonance is now 21.6 MHz.

Deacon Dave, W1MCE

BICisfag wrote:
> My 40 m dipole seems to work as good as anything I have
> on RX on 15 m.
> It is coax fed but my 989 MFJ tuner won't tune the damn
> thing very good at all.
> Whats up with that. I thought it was a 3rd harmonic and should
> tune easily.
>

5456. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 02:22:36 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E0A67AF.5010506@attbi.com>
Source record: 128395

Later posts clarified the feed system. This is not an accurate presentation.

Deacon Dave,

Dave Shrader wrote:
> A 130 foot dipole is resonant on 3.6 MHz [1/2 wavelength], 7.2 MHZ [1
> wavelength], 10.8 MHz [3/2 wavelength], 14.4 MHz [2 wavelengths], etc as
> long as it is an integral multiple of 1/2 WL it is resonant. It is a low
> impedance load on the 1st, 3rd, 5th and all odd multiples of 1/2
> wavelength and high impedance on the even multiples of a full wavelength.
>
> Antenna resonance is ANTENNA RESONANCE and is determined by the
> characteristics of the ANTENNA!! [Feed system is excluded].
>
> A quick calculation, not rigorous, indicates that the antenna system is
> resonant and operating with a feedpoint VSWR of about 3:1 or a little
> higher on 3.6 MHz. Most rigs will easily achieve a match. [The unused
> transmission line [92 feet] introduces a shunt capacitive reactance
> across the load of between 160 and 200 ohms]. For 7.2 MHz the 110 foot
> line is 1 WL and reflects a high resistance on 7.2 MHz while the 92 foot
> line converts the high feedpoint resistance to a lower value. A quick
> non rigorous calculation indicates a feedpoint VSWR of 2.2:1 to 3:1 on
> 7.2 MHZ.
>
> For those who are LOW VSWR addicts this is terrible!! But, it is a
> resonant antenna with a stub feed system that should work!!
>
> Would I use it?? No! Too complex. I prefer a simple center fed doublet
> with tuned feeders.
>
> Deacon Dave, W1MCE
>
>
> BICisfag wrote:
>
>> Wait a minute. You have a 130' dipole and feed it with
>> 2 seperate 450 ohm runs 110' and 92' and its resonant?
>>
>> Whats on the end of the 450 that runs into the house?
>>
>>
>>
>> OC_CAM's Razor wrote:
>>
>>

>>> Ken wrote:
>>>
>>>> On Tue, 24 Dec 2002 13:33:02 -0600, OC_CAM's Razor
>>>> <Cecil.A.Moore@ieee.org> wrote:
>>>>
>>>>
>>>>> If you are going to feed it with twinlead, why not put up an 80m
>>>>> dipole and feed it with 1/2WL of twinlead on 80m and 3/4WL of twinlead
>>>>> on 40m? - no tuner required.
>>>>
>>>>
>>>> EZNEC shows infinite SWR with 7.040MHz on an 80M dipole. . .
>>>
>>>
>>> Nope, it doesn't. With a 130ft dipole on 7.2MHz it shows SWR = 11.2:1
>>> on the 450 ohm ladder-line and 1.25:1 on the coax. On 3.8MHz, it shows
>>> 6.6:1 on the 450 ohm ladder-line and 1.4:1 on the coax. Like I said,
>>> no tuner needed. I know. I run that 130ft dipole on 75m and 40m with
>>> no antenna tuner. My transmitter is perfectly happy.
>>>
>>>
>>>> My SWR meter doesn't go that high. Also, I am concerned that I will
>>>> fry my radio.
>>>
>>>
>>> Do you know how to use the transmission line option in EZNEC?
>>> If so, adjust the feedline length on 80m for a match. Then adjust
>>> the feedline length on 40m for a match. On my dipole, the lengths
>>> are 110ft and 92ft.
>>> --
>>> cheers, CAM http://www.qsl.net/w5dxp
>>>
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>>
>>
>>
>

5457. Re: 40m dipole on 15 meters???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 02:53:42 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3E0A6BDA.CF359EA7@verizon.net>
Source record: 128397

Dave Shrader wrote:

> It should if ...
>
> 1) it is resonant at or below 7.1 MHz
> 2) it is relatively free of surrounding obstructions trees etc.
> 3) it is relatively high
> 4) it is truly cut for 7.1 MHz or lower, not pruned to work on your
> favorite frequency
> 5) the antenna load impedance is no longer ~50 ohms on 21 MHz it
> increases to something in the 100 ohm range.
> 6) etc.
>
> Conclusion: a 7.2 MHz antenna has a high feedpoint impedance with
> significant reactance at 21.3 MHz. EZNEC calculates a VSWR of 7:1 at
> 21.45 MHz for a 7.2 MHz dipole.
>
> So, a 7.0 to 7.1 MHz dipole will show a VSWR of 2:1 or greater in a 50
> ohm system when operated at 21 MHz. A 7.2 MHz dipole shows a high VSWR
> in a 50 ohm system because resonance is now 21.6 MHz.
>
> Deacon Dave, W1MCE
>
> BICisfag wrote:
> > My 40 m dipole seems to work as good as anything I have
> > on RX on 15 m.
> > It is coax fed but my 989 MFJ tuner won't tune the damn
> > thing very good at all.
> > Whats up with that. I thought it was a 3rd harmonic and should
> > tune easily.
> >

All you need to do is attach a 6-10" stub at the 11' points either side of center and then trim them for best VSWR where you desire it on 15M.
Because the stubs are at a low Z, or hi current point on 40M, there will appear invisible.

Dale W4OP

5458. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 02:54:20 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E0A6F1F.7040902@attbi.com>
Source record: 128398

Let's begin by defining EFFICIENCY.

Efficiency is the ratio of power output [radiated] to the power put into the system [out of transmitter].

There are numerous places where power is lost in an antenna system. Among these are:

1) the connectors carrying the RF have both ohmic and insertion losses.
2) the components of any antenna tuner
3) the attenuation factor of the transmission line
4) The VSWR and line construction
5) the insertion loss of any balun/unums
6) the loss resistance in the antenna
7) the losses in any traps or loading coils in the antenna
8) ground losses

At HF and VHF the normal 'Ham' connectors [PL 259/SO 239, Type N, etc] have minimal impact [typically less than 0.1 dB].

Antenna tuners, if used, typically have 0.2 +/- dB loss

3) and 4) have a major role in efficiency. Open wire parallel lines have extremely low attenuation factors. Coax lines have a loss factor that depends on electrical length and VSWR and this is higher than open wire lines.

Baluns and Unums have typically less than 0.1 dB loss.

Loss resistance in the antenna needs a little discussion. The antenna, resonant or non resonant, is composed of three resistive terms where power is dissipated. The first is the radiation resistance. This is the good stuff. We want this as high as can be reasonably achieved. The second term is the ac [rf] current loss resistance. This is higher than the dc resistance and is caused by 'skin effect'. An antenna using #12 wire will have a lower loss resistance than an antenna using #16 wire. Finally we have the end loss resistance across insulators etc to ground.

Ground losses, very real, would be constant in your analysis.

Notice that the reactance[s] are not included in this discussion. Reactances do not radiate or dissipate power.

So, an efficiency comparison of resonant and non resonant antenna systems is based on losses not on whether the antenna is resonant or not.

Efficiency is the ratio of power output to power input.

Deacon Dave, W1MCE

William F. Hagen wrote:
> yes you are absoltely right, thanks for pointing out what I left out. My
> arguement assumes only one type of line being compared with a resonant vs
> non-resonant antenna.
> Because the resistance is so much higher in the 100 foot long 600 ohm line, the
> 10/1 swr loss is less because the current is less compared to the resonant 50
> ohm system.
> The system with the 50 ohm dipole, and 600 ohm line, the dipole being 50 ohms I
> assume is because it is resonant, thus having no reactance, wouldnt that be
> more efficient than say where the line was still 100 feet of 600 ohm line, and
> the dipole was not resonant, which would increase the swr due to increased
> reactance, or could the off resonant antenna be cut so the sum of resistance
> and reactance = 600 ohms, and be more efficient than the resonant 50 ohm
> dipole? Also, using a stacked dipole, which at resonance could be 600 ohms,
> wouldnt that be the most efficient system with the 600 ohm line?
> And, here is a question that I dont have an answer to, maybe you can help me
> here, if the antenna is resonant and at 50 ohms, so no reactance, and one uses
> a halfwave length of 600 ohm line, so that the antenna impedence of 50 ohms is
> seen at the other end of the 600 ohm line, is there a swr of greater than 1/1
> on the line?
>
> Is it far to state that, a resonant antenna is always more efficient than a
> non-resonant antenna when the transmission line of the same impedence is used
> for both, or not fair to state because a transmission line can be found to
> match the impedance of the non-resonant antenna, and with proper coupling to
> the transmitter, will be more efficient? And, if the length is kept the same,
> the line that matches the non-resonant antenna would then have a higher swr
> with the resonant antenna, and would be more lossy, however if the length is
> not kept the same, then some length would transform the impedance to the
> impedance of the transmitter, and if it is true that there is no swr on a line
> length that transforms the impedance from the antenna impedance to the
> transmitter impedance, then wouldnt both a resonant and non resonant antenna
> have the same efficiency?

5459. Vs: Vs: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 03:05:58 UTC
From: "Antti J. Huhtala" <oh2dt@sral.fi>
Message-ID: <audrm1gub1@nyytiset.pp.htv.fi>
Source record: 128399

"Antti J. Huhtala" <oh2dt@sral.fi> wrote in message
news:audnl3fls1@nyytiset.pp.htv.fi...
>
> SWR = (1+ro)/(1-ro) ; where ro is the complex reflection
> coefficient
>
Sorry everybody, I forgot to use absolute value symbols in this latter
formula. It should be written:

SWR = (1+|ro|)/(1-|ro|)

Antti, OH2DT

5460. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 03:21:42 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0A75C6.4080502@ieee.org>
Source record: 128400

William F. Hagen wrote:
> And, here is a question that I dont have an answer to, maybe you can help me
> here, if the antenna is resonant and at 50 ohms, so no reactance, and one uses
> a halfwave length of 600 ohm line, so that the antenna impedence of 50 ohms is
> seen at the other end of the 600 ohm line, is there a swr of greater than 1/1
> on the line?

Of course, the SWR on the 600 ohm line with a 50 ohm antenna will be 600/50=
12:1 which, on coax is relatively lossy but 12:1 on open-wire feedline is
usually acceptable.

> Is it fair to state that, a resonant antenna is always more efficient than a
> non-resonant antenna when the transmission line of the same impedence is used
> for both, or not fair to state because a transmission line can be found to
> match the impedance of the non-resonant antenna, and with proper coupling to
> the transmitter, will be more efficient?

You've got to take everything into account. For instance, assume a resonant
folded dipole has a feedpoint resistance of 300 ohms. Using 50 ohm coax,
the SWR on the coax would be 6:1. Compare that to a non-resonant dipole
that has an SWR of 4:1. The non-resonant dipole will radiate more power
than the resonant folded dipole.
--
cheers, CAM http://www.qsl.net/w5dxp

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5461. Re: Vs: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 03:30:46 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0A77E6.5040401@ieee.org>
Source record: 128401

Dave Shrader wrote:
> A center fed antenna one wavelength long is RESONANT but exhibits a
> radiation resistance of several thousand ohms and a VSWR, in a 50 ohm
> system, of > 40:1.

Back in the dark ages when I went to school at Texas A&M, we called
that the point of anti-resonance just to distinguish it from the
lower resistance resonant point.
--
cheers, CAM http://www.qsl.net/w5dxp

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5462. Re: Vs: Vs: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 03:36:15 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0A792F.9070806@ieee.org>
Source record: 128403

Antti J. Huhtala wrote:
> Sorry everybody, I forgot to use absolute value symbols in this latter
> formula. It should be written:
>
> SWR = (1+|ro|)/(1-|ro|)

While you're at it, make that "rho", the 17th letter of the
Greek alphabet.
--
cheers, CAM http://www.qsl.net/w5dxp

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5463. Re: WAS award and ARRL membership??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 03:36:29 UTC
From: Jimnn7k@reno.rmci.net
Message-ID: <JHuO9.14354$BP.5671@fe01>
Source record: 128402

You HAVE TO be a member (if u.s.station, believe the rest of world is exempt) to get the award.
You Don't , however to have CONTINIOUSLY have been a member, while collecting those states! Jim NN7K, 6 meter QRP WAS # 724 (only took about 19 years on that go!)

"BICisfag" <ll@jj.com> wrote in message news:3E0A3155.9E43C3FF@jj.com...
> Do you have to be a ARRL member to be able to get a
> WAS award?
>

5464. Re: WAS award and ARRL membership??

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 03:45:09 UTC
From: "Dee D. Flint" <deehays@qix.net>
Message-ID: <9XuO9.10199$4j5.5942836@newssvr28.news.prodigy.com>
Source record: 128396

"BICisfag" <ll@jj.com> wrote in message news:3E0A3155.9E43C3FF@jj.com...
> Do you have to be a ARRL member to be able to get a
> WAS award?
>

Check the info on the ARRL website.

www.arrl.org

Dee Flint, N8UZE

5465. Re: Riding the Waves

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 03:45:11 UTC
From: Jimnn7k@reno.rmci.net
Message-ID: <UPuO9.14410$BP.8458@fe01>
Source record: 128404

and, Steve Hawking does similar (what else can he do? his body doesn't work) in his views of astrophysics! and, both to their credit, have been rarely (if ever) disproven !!

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message news:3E0A2203.8040404@ieee.org...
> N2EY wrote:
> > Thinking about doing a thing and describing it is VERY different from actually
> > doing the thing.
>
> That's nice but nobody said anything about actually doing it
> anywhere except in one's mind.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5466. Vs: Vs: Vs: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 03:49:25 UTC
From: "Antti J. Huhtala" <oh2dt@sral.fi>
Message-ID: <audu7g$hq1$1@nyytiset.pp.htv.fi>
Source record: 128405

You are absolutely right again, CAM. Believe or not, in my programs it really is written "rho" but I forget it sometimes because the 'h' is totally silent in my language and probably others, too.

Antti

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> kirjoitti viestiss&#65533;
news:3E0A792F.9070806@ieee.org...
>
> While you're at it, make that "rho", the 17th letter of the
> Greek alphabet.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>

5467. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 04:12:58 UTC
From: Leland Cox <lcox107@comcast.net>
Message-ID: <3E0A81CA.6070508@comcast.net>
Source record: 128406

Put up a fan arrangement and feed it with RG 58, 50 ohm coax. One pair
of legs 130 ft and one pair 66 ft. Just about any type wire can be used
for the antenna, even galvanized electric fence wire. Spread the legs
out away from each other.
You can use them to guy the pole by putting the 80 m set N-S and the 40
M set E-W.
The losses at 40 and 80 M are so low the wire and the coax can be the
cheapest stuff you can find!

Les, AA4F

Ken wrote:

> I want to put up one light inverted-V dipole-type antenna when camping
> that will handle 40M and 80M QRP.
>
> Options so far considered include traps, loading coils and a fan
> arrangement.
>
> Since I need to guy the pole anyway, How about running a half-wave 80M
> perpendicular a 40M half-wave dipole, with both connected to the same
> feedpoint, fed with twinlead?
>
> I have tried to model this on EZNEC, but could not figure out how to
> get the split source feature to work with a 4-wire junction.
>
> Ken KC2JDY
>
>
> Ken
> (to reply via email
> remove "zz" from address)
>

5468. Help with antenna proposal

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 05:48:42 UTC
From: Scott Vanzandt <zandt@midsouth.rr.com>
Message-ID: <155l0vgaai6lb2557fkpk47jdsh6oi19u2@4ax.com>
Source record: 128407

I am in the process of purchasing a new home. There are some antenna covenants, but I should be able to live with them. The only real problem is now a single covenant that requires the developer to agree in writing to the construction of any structure including any type of antenna. I have been assured that this won't be a problem, but to have the agreement included in the purchase contract, they want to know what type of antenna will be installed. I intend to install some type of vertical, but have not decided exactly which one. (Any reccomendations?) Anyway to the point, they want something to asure them that I would not interfere with neiboring radio/TV and a set of descriptors for the proposed antenna. I am looking for something fairly generic that I could give them that would have the least impact on my ability to install/change antennas. I was thinking something like "I agree that my equipment will not cause undue interference with properly engineered equipment in the area. In all cases, FCC regulations regarding radio frequency interference shall be adhered to. Antenna will be .... (need the help here.) What do I need to change/add?
Help.
N2WMD
Scott

5469. Re: New simple LC filter design program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 07:20:08 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <aueaj6nsf1@slb0.atl.mindspring.net>
Source record: 128408

Reg:

Thanks for another great program!

However, as usual we are not privy to your methods of calcualtion. I was wondering???

Does your program use the simple, venerable, but approximate, image parameter design formulae?

If not then perhaps you are aware of, and have been delighted by, the remarkably simple explicit
formulae for the exact element values of low-pass, all-pole, ladder filters with Butterworth and
Chebychev characteristic functions. These remarkably simple formulae involve only the trigonometric
functions powers and square roots, and may be executed easily by hand on a scientific calculator.

As a "teaser" the extremely simple formulae, known as Bennett's formulae, for the "normalized" element
values of the N'th order Butterworth [a.k.a maximally flat] minimum inductor, low-pass characteristic
function operating between one Ohm source and load resistances [R1 = R2 = 1.0 Ohms] with exact
unity passband ripple bandwidth and exact passband attenuation ripple given by Ap in dB are:

Ck = 2 eps^(1/N) sin(Pi (2k-1)/2N)): N - odd
Lk = 2 eps^(1/N) sin(Pi (2k-1)/2N)): N - even

Where: eps = sqrt(10^(Ap/10) - 1.0) is the passband ripple factor with Ap in dB.

No need to calculate poles and zeros, no need to understand complicated Butterworth and
Chebyshev polynomials, no need tolearn how to read tables and nomographs nor to exert
the effort to carry them around! The results, unlike image parameter design, are exact and
are not approximations.

Apparently Bennett "discovered" the remarkable Butterworth formulae long ago, and it was many
years later, and with great difficulty, that Takahashi "proved" the formulae and introduced several
new ones for the Chebychev case including some predistorted designs.

A table for the element values for the 5th and 6th order filters operating between one
Ohm terminations with 3dB ripple at unity bandwidth can be generated by hand on a modern
scientific calculator in moments. Here's a table for Butterworth filters which I generated by hand
in a couple of minutes.

N C1 L2 C3 L4 C5
5 0.6180 1.6180 2.0000 1.6180 0.6180
6 0.5176 1.4142 1.9319 1.9319 1.4142 0.5176
N L1 C2 L3 C4 L5 C6

Of course the conventional simple element by element reactance transformations from low-pass to high-pass
and low-pass to band-pass along with frequency and impedance level scaling may also be easily executed by
hand on a modern scientific calculator.

As with your program, ideal elements are assumed, and consequently the effects of finite Q of the elements is
not accounted for by these formulae. However, there exists simple algorithms, derived from sensitivity analysis
by Mayer Blostein Gabor Temes, which I have used for many years, which estimates the effects of semi-uniform
element value losses and termination mis-matches on the passband response.

Although I use a calculator myself, I have long felt that such exact formulae could form the basis of a very
elegant and simple "Reg Edward's style" program for all-pole insertion loss filter design. Such a program
could also readily handle the denormalizations from unity bandwidth and impedance levels to the practical
final desired targets as well as the conventional reactance transformations for high-pass and band-pass cases.

If you are interested in more information on these remarkable formulae for the Butterworth and Chebychev
characteristic functions, there is a nice description of them with an outline proof along with 13 references to
the original literature in:

Louis Weinberg, "Network Analysis and Synthesis", McGraw-Hill, 1962, [see Ch. 13, Sec. 13.5]

There is also a write up on how to use them effectively in:

Adel S. Sedra, and Peter O. Brackett, "Filter Theory and Design: Active and Passive", Matrix, 1978.

Enjoy!

Season's greetings,

--
Peter K1PO
Indialantic By-the-Sea, FL

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:audoaf$6tv$3@knossos.btinternet.com...
>
> PROGRAM "LPF_HPF.exe"
>
> Most filters consist of one or more cascaded, simple, 3-component, T or Pi
> sections and are used in a multitude of applications where pass-band
ripple,
> frequencies of infinite attenuation in the stop-band, exact impedances
> matches, etc., are not of consequence.
>
> This easy to use program calculates component values of high-pass,
low-pass,
> T and Pi, basic filter sections. Internal filter loss is neglected.
> Operating inconveniences which may be present in more complicated programs
> can be avoided.
>
> Filter response vs frequency is in terms of dB insertion loss between Ro
> terminations for 1 to 5 cascaded sections. Frequency range is from audio
to
> VHF.
>
> Download in a few seconds program LPF_HPF.exe from website below and run
> immediately.
> ---
> ==========================
> Regards from Reg G4FGQ
> For Free Radio Design Software
> Go to http://www.g4fgq.com
> ==========================
>
>
>

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:audoad$6tv$1@knossos.btinternet.com...
>
> PROGRAM "LPF_HPF.exe"
>
> Most filters consist of one or more cascaded, simple, 3-component, T or Pi
> sections and are used in a multitude of applications where pass-band
ripple,
> frequencies of infinite attenuation in the stop-band, exact impedances
> matches, etc., are not of consequence.
>
> This easy to use program calculates component values of high-pass,
low-pass,
> T and Pi, basic filter sections. Internal filter loss is neglected.

> Operating inconveniences which may be present in more complicated programs
> can be avoided.
>
> Filter response vs frequency is in terms of dB insertion loss between Ro
> terminations for 1 to 5 cascaded sections. Frequency range is from audio
to
> VHF.
>
> Download in a few seconds program LPF_HPF.exe from website below and run
> immediately.
> ---
> ==========
> Regards from Reg G4FGQ
> For Free Radio Design Software
> Go to http://www.g4fgq.com
> ==========
>
>

5470. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 08:26:52 UTC
From: Alfred Lorona <w6wqc@dslextreme.com>
Message-ID: <aueegs$690cd$1@ID-49117.news.dfncis.de>
Source record: 128409

"Bob Cameron" <bob.cameron.remove@optusnet.com.au> wrote in message
news:52jbua.hrh.ln@p400bob.lse.com.au...
>
> Hi All
>
> Silly question time.
>
> For quite some time I have believed that for an antenna to work well it
> needs to be resonant at the operating freq. Ie no reactance at the
> feedpoint.
>
> My question is how important is that really? If (for example) I start off
> with a quarter wave groundplane (feedpoint 37 ohms resistive) and test its
> "perfomance" (VSWR approx 1.5:1), then alter its length so that the
> conjugate impedence is 50r and test again, what "difference" is noted?
>
> A measurement in dB would be useful?
>
> I guess I should ask whether it changes from antenna type to antenna type?
> Eg quad vs dipole vs yagi etc etc.
>
> Cheers
>
> Bob (VK2YQA)

Bob: You may want to click on 'antennas and feedlines' at
www.west.net/~jax/archive/archive.html

73, AL

5471. Re: Help with antenna proposal

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 12:44:22 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E0AF965.4080205@attbi.com>
Source record: 128410

Scott, the ANTENNA does not cause interference.

I would state:

"The amateur station, including antennas and supporting structures, will be in complete compliance with the requirements of 47 CFR 97.1 - 97.527.

For the purposes of this document a particular reference to paragraph 47 CFR 97.121a is included by reference."

I would pick up a copy of Part 97 from W5YI or equivalent source, take the time to become familiar with it and have it available for reference.

FYI: 97.121a is the paragraph that states among other items "If the operation of an amateur station causes general interference to the reception of transmissions from stations operating in the domestic broadcast service when receivers of good engineering design, including adequate selectivity characteristics, are used to receive such transmissions ... " Then silent hours are imposed. Also, subparagraph b allows for FCC investigation of complaints.

Build your terms based on complying with the normal Federally imposed requirements for your station.

Examples: telephone interference, VCR interference, computer sound card interference are excluded because they are NOT receivers of the domestic broadcasrt service and do not exhibit "adequate selectivity". Once the legalities are defined then good neighbor practices should be followed. I keep about $200 of telephone filters, clamp on ferrite beads, and various chokes that the owners can connect to their equipment externally.

Deacon Dave, W1MCE

Scott Vanzandt wrote:
> Anyway to the point, they want something to asure
> them that I would not interfere with neiboring radio/TV and a set of
> descriptors for the proposed antenna. I am looking for something
> fairly generic that I could give them that would have the least impact
> on my ability to install/change antennas. I was thinking something
> like "I agree that my equipment will not cause undue interference with
> properly engineered equipment in the area. In all cases, FCC
> regulations regarding radio frequency interference shall be adhered
> to. Antenna will be .... (need the help here.) What do I need to
> change/add?
> Help.
> N2WMD
> Scott

>

5472. Re: Help with antenna proposal

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 13:31:24 UTC
From: Beans <beans@gate.net>
Message-ID: <3E0B04AC.2A529E53@gate.net>
Source record: 128411

Dave Shrader wrote:

> Scott, the ANTENNA does not cause interference.
>
> I would state:
>
> "The amateur station, including antennas and supporting structures, will
> be in complete compliance with the requirements of 47 CFR 97.1 - 97.527.
>

Good advice.

I would also not limit yourself by defining the antenna you might erect. Rather, limit you antenna to 500 square feet or whatever, to allow some flexibility in the future. don't say "Cushcraft" or whatever,because you can paint yourself into a box.

And in the agreement, make THEM agree..not you. Make the developer affirmatively state what you can do. That way there is no question.

> I was thinking something
> like "I agree that my equipment will not cause undue interference with
> properly engineered equipment in the area.
>
How much intereference is "undue?" What is "properly engineered?" Stay away from language like this. JMO.

And, whetever you do, get a good real estate lawyer to handle this.

Jeff

5473. Out in left field?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 13:49:39 UTC
From: fatoldcat@webtv.net
Message-ID: <17571-3E0B08F3-931@storefull-2312.public.lawson.webtv.net>
Source record: 128415

I have an 11' Interstat dish I wish to use as a "dual reflect" antenna for tv. {C&Ku band] What size subreflector wood be called for,this dish is about 24" deep. This is a toy and I will probably try this even if its not a good idea. Ideas ? information? Help

5474. Re: Antenna Tuners & Active Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 13:51:29 UTC
From: Henrik <henrik>
Message-ID: <3e0b095e$0$217$edfadb0f@dread16.news.tele.dk>
Source record: 128412

"Dee D. Flint" <deehays@qix.net> wrote in message
news:gipO9.10174$4j5.5917769@newssvr28.news.prodigy.com...
> There is also a transmit button on the front of the transceiver for those
> folks that don't like to use semi-breakin or full-breakin for CW. If he
> presses that, he will get a full strength signal output depending on the
> setting for the output power.
>
> It might be best to buy him a good quality shortwave receiver only.
>
> Dee Flint, N8UZE

Or remove the power supply lead to the PA....

H.

5475. Re: Antenna Tuners & Active Antennae

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 14:02:05 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <ao2m0vojp7l16uds9u5m7kaenn4lskivk3@4ax.com>
Source record: 128413

How about removing the voltage and/or input drive to the PA stage?
Tag the appropriate wires so that there is no doubt as to what was
done.

73,

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

5476. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 14:11:42 UTC
From: richardharrison@webtv.net
Message-ID: <25999-3E0B0E1E-798@storefull-2314.public.lawson.webtv.net>
Source record: 128416

Al, W6WQC wrote:
"You may want to click on "Antennas and Feedlines"---."

Why a non-resonant length? A feedline with SWR can provide "just as good a performance".

Al, that is hyperbole!

Al wrote: "The definition (1/2-wave) has nothing to do with current magnitude."

More hyperbole!

The link between antenna length and current into the antenna is a match to the feedline. A conjugate match maximizes power transfer and antenna radiation. A feedline which looks like Ro transfers maximum power into an antenna feedpoint of Ro.

Al is just generating another old wives tale that length doesn`t matter.

Best regards, Richard Harrison, KB5WZI

5477. Re: Help with antenna proposal

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 14:13:44 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <m23m0vc46rvot02vmjat2a98q88b8jevh1@4ax.com>
Source record: 128414

On Thu, 26 Dec 2002 05:48:42 GMT, Scott Vanzandt
<zandt@midsouth.rr.com> wrote:

>I intend to install some type
>of vertical, but have not decided exactly which one. (Any
>reccomendations?)

Check out http://www.bencher.com/ant_select.html

I have no connections with this company whatsoever. I'm not even a
customer. However, I generally think they're on the right track with
the design of their antennas. Were I to purchase an antenna of this
sort, I'd seriously consider their products.

73,

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

5478. Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 15:57:38 UTC
From: k3bu@aol.com
Message-ID: <20021226105738.02744.00000568@mb-ch.aol.com>
Source record: 128417

Here is the question for the enlightened:

We know from the tuned circuits and RF transformers that the higher the Q, the sharper the tuning and coupling efficiency.
Projecting this into antenna situation, where antenna is the transducer between RF in the wires and RF in the space.
Can we increase efficiency of this transition by any means?
Is high antenna Q of any benefit to make it more "sensitive" to RF extraction from the space?
What about matching the space impedance (377 ohms) with antenna impedance?
One thing we know the capture area of the antenna (array) is one factor.
Another factor is the terrain (shaping the pattern) and ground conditions (altitude, ocean).
I have not seen much elaboration on this subject in the (limited) selection of literature I had the chance to read. Is this non-important or overlooked subject? Any pointers to books or web pages?

73 Yuri,
K3BU, VE3BMV, VE1BY etc.

5479. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 16:23:36 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <aufae7$6mavk$1@ID-175933.news.dfncis.de>
Source record: 128418

An antenna with an "infinite" return loss at its feedpoint already radiates as much power as it gets. The only ways to increase field strength for a given receive location, time, frequency, and antenna input power are to modify the radiation patterns of the antenna, and/or set up a propagation path having less loss.

Richard Fry

"Yuri Blanarovich" <k3bu@aol.com> wrote in message news:20021226105738.02744.00000568@mb-ch.aol.com...
> Here is the question for the enlightened:
>
> We know from the tuned circuits and RF transformers that the higher the Q, the
> sharper the tuning and coupling efficiency.
> Projecting this into antenna situation, where antenna is the transducer between
> RF in the wires and RF in the space.
> Can we increase efficiency of this transition by any means?
> Is high antenna Q of any benefit to make it more "sensitive" to RF extraction
> from the space?

5480. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 16:35:39 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3e0b2ff0$0$29629$ba620e4c@news.skynet.be>
Source record: 128319

Thank you for the translation. It was also my idea that "cps" must mean cycles per second but it was quite strange to cut a dipole for a frequency of 3.75 cps or 3.75 Hz presently. Did I miss an episod ?

73 de ON5MJ - Jacques.

5481. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 16:49:56 UTC
From: Chuck/KE4ETH <chuck_hawks@hotmailNOSPAMORAMA.com>
Message-ID: <8GHO9.129991$0v3.44616@news.bellsouth.net>
Source record: 128325

Jacques,

Sorry, I missed putting a M in front of it. it should have been Mcps or 3.75 Mhz.

Didn't mean to confuse .

--
73,
Chuck
KE4ETH
USA-NA
Remove the obvious from Email.

"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message
news:3e0b2ff0$0$29629$ba620e4c@news.skynet.be...
> Thank you for the translation. It was also my idea that "cps" must mean
> cycles per second but it was quite strange to cut a dipole for a frequency
> of 3.75 cps or 3.75 Hz presently. Did I miss an episod ?
>
> 73 de ON5MJ - Jacques.
>
>

5482. Re: New simple LC filter design program

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 16:50:17 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <aufc07$lc7$1@slb1.atl.mindspring.net>
Source record: 128320

Kevin:

[snip]
> I would be interested in the explicit Chebychev LC solution. Could you
> post it?
:
:
> Kevin Aylward
[snip]

Yes, I will do that, but only as a Christmas Gift to the NG.

The Chebychev case is rather more difficult to render in email/NG format and
so
due to egg nog, etc... I cannot be held responsible for errors during my
typing
or transcription errors. Please consult the original references for
corrections.

i.e. There is a No Return policy on this gift post.

With due credit to the great H. Takahasi who discovered several remarkable
novel
properties of the Chebychev polynomials, provided a proof of Bennett's
formula for
the Butterworth case, proved that the Butterworth characteristic function is
a limiting
case of the Chebychev characteristic function [as eps approaches zero!] and
discovered
and proved several new and unique explicit closed form element formulae for
LC ladder
filters:

H. Takahasi, "On the Ladder-type Filter Network with Tchebyshff Response, J.
Inst.
Elec. Commun. Engrs, Japan, vol. 34, no. 2, Feb, 1951. [In Japanese!]

Note, I use the email/NG equation posting protocol found at:

http://www.karlscalculus.org/email.html

First use the ripple factor

eps = sqrt(10^(Ap/10) - 1.0)

where Ap in dB is the passband attenuation at the bandedge to calculate an
intermediate
constant h

h = [(1/eps) + sqrt(1 + (1/(eps)^2)]^(1/N)

to obtain the more interesting quantity zeta

zeta = (h - 1/h)

The element values for Chebychev low-pass ladder filters are then given iteratively by the
following remarkable iterative formulae:

C1 = 4*sin(Pi/2N)/zeta*R1

C(2k-1)*L(2k) = [16*sin((4k-3)/2n)Pi) * sin((4k-1)/2N)Pi)]/(zeta^2 + 4*(sin(2k/N)Pi)^2

C(2k+1)*L(2k) = [16*sin((4k-1)/2N)Pi) * sin((4k+1)/2N)Pi)]/(zeta^2 + 4*(sin(2k/N)Pi)^2

for k = 1, 2, ... N/2.

The end elements are also given by

C(N) = 4*sin(Pi/2N)/zeta*R2, for odd N, or

L(N) = 4*R2 sin(Pi/2n)/zeta, for even N.

so that the formulae may be used in the reverse direction as well which is required for the
even order case to determine the correct termination resistance for maximum power
transfer, i.e. zero insertion loss.

Here's some worked out examples to help y'all understand these remarkable formulae...

I will calculate the element values for the 3rd and 4th order Chebyshev filters with
pass band ripple Ap = 0.1 dB, unity cutoff frequency, and source resistance of 1.0 Ohms.

Here Ap = 0.1 dB so that eps = 0.1526204 and eps^2 = 0.0232930

For the 3rd order Chebychef filter ---

Here, with h = 2.36215 we calculate zeta = 1.938812, and with R1 = 1.0 Ohms...

C1 = 4 sin(Pi/6)/zeta = 1.031560 Fd.

C1*L2 = [16 * sin(Pi/6) * sin(3Pi/6)]/[zeta^2 + 4 * (sin(Pi/3))^2] = 1.183609

L2 = 1.1473966 Hy.

C3 * L2 = [16 * sin(3Pi/6) * sin(5Pi/6)]/[zeta^2 + 4 * (sin(2Pi/3))^2] = 1.183609

C3 = 1.031560 Fd.

For the odd order Chebychev the filters have a reflection zero [attenuation zero] at
zero frequency and so the termination resistor always equals the source resistor

R2 = R1 = 1.0 Ohms.

For the 4th order Chebychev filter ---

h = 1.905378, zeta = 1.380548, R1 = 1.0 Ohms...

C1 = 4 * sin (Pi/8)/zeta = 1.108787 Fd.

C1*L2 = 16 sin (Pi/8) sin (3Pi/8)/[zeta^2 + 4 (sin(pi/4)^2] = 1.448280

L2 = 1.306184 Hy.

C3*L2 = 16 sin (3Pi/8) sin(5Pi/8)/[zeta^2 + 4 (sin(2Pi/4))^2] = 2.31240

C3 = 1.770351 Fd.

C3*L4 = 16 sin(5Pi/8) sin(7Pi/8)/[zeta^2 + 4 (sin(3Pi/4))^2] = 1.448280

L4 = 0.818075 Hy.

Since this is an even order Chebychev there is no reflection zero [attenuation
zero] at zero frequency and so the termination resistor R2 for zero insertion loss
is different from the source resistor R1. To determine the termination resistance
the filter is partially sysnthesized from the other end as follows to obtain L4 in
terms of R2 as...

L4 = R2 * 4 * sin(Pi/8)/zeta = 1.108787 * R2 and thus R2 can be calculated
from the two values of L4 by the ratio

R2 = (L4 from the left end)/L4 from the right end) = 0.8188075/1.108787

R2 = 0.737811 Ohms.

Undoubtedly y'all can appreciate the convenience of these explicit formulae,
especially for simple Reg Edwards style programs. The network elements
are obtained directly with no computation of poles and zeros or extensive
polynomial manipulations.

For more on such formulae including predistorted designs and impedance
transforming filters see:

H. Takahasi, "On the Ladder-type Filter Network with Tchebyshff Response, J. Inst.
Elec. Commun. Engrs, Japan, vol. 34, no. 2, Feb, 1951. [In Japanese!]

Louis Weinberg, "Network Analysis and Synthesis", McGraw-Hill, 1962, [see
Ch. 13, Sec. 13.5]

Adel S. Sedra, and Peter O. Brackett, "Filter Theory and Design: Active and Passive", Matrix, 1978 Chapter 6, Frequency and Network Transformations.

Happy Holidays,

--
Peter K1PO
Indialantic By-the-Sea, FL

5483. Re: Help with antenna proposal

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 17:04:53 UTC
From: jkeller <jkeller@cox.net>
Message-ID: <VEGO9.164105$6k.3281439@news1.west.cox.net>
Source record: 128321

Scott, I've heard of some developers removing restrictions after they have developed and sold all the houses in the track. I've always thought this meant that they were more concerned about the antenna appearance, which may have an impact on their ability to sell houses, rather than the interference it could cause to equipment in houses already sold. I'm wondering if the comment about interference is something that the sales agent is telling you as he or she may not really know why the developer want's to approve all new structures.

If most of the houses around your new house have been sold and if the antenna is a ground mounted vertical rather than a beam on a 50' tower, I wouldn't think you would have much of a problem.

Jim Keller
WB6YXY
Oceanside, Ca.

"Scott Vanzandt" <zandt@midsouth.rr.com> wrote in message
news:155l0vgaai6lb2557fkpk47jdsh6oi19u2@4ax.com...
> I am in the process of purchasing a new home. There are some antenna
> covenants, but I should be able to live with them. The only real
> problem is now a single covenant that requires the developer to agree
> in writing to the construction of any structure including any type of
> antenna. I have been assured that this won't be a problem, but to have
> the agreement included in the purchase contract, they want to know
> what type of antenna will be installed. I intend to install some type
> of vertical, but have not decided exactly which one. (Any
> reccomendations?) Anyway to the point, they want something to asure
> them that I would not interfere with neiboring radio/TV and a set of
> descriptors for the proposed antenna. I am looking for something
> fairly generic that I could give them that would have the least impact
> on my ability to install/change antennas. I was thinking something
> like "I agree that my equipment will not cause undue interference with
> properly engineered equipment in the area. In all cases, FCC
> regulations regarding radio frequency interference shall be adhered
> to. Antenna will be .... (need the help here.) What do I need to
> change/add?
> Help.
> N2WMD
> Scott
>

5484. Re: Help with antenna proposal

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 17:33:43 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <v0mfbmcrcpom5d@corp.supernews.com>
Source record: 128322

Will be... State of the art antennas for applicable amateur radio
frequencies.

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Scott Vanzandt" <zandt@midsouth.rr.com> wrote in message
news:155l0vgaai6lb2557fkpk47jdsh6oi19u2@4ax.com...
> I am in the process of purchasing a new home. There are some antenna
> covenants, but I should be able to live with them. The only real
> problem is now a single covenant that requires the developer to agree
> in writing to the construction of any structure including any type of
> antenna. I have been assured that this won't be a problem, but to have
> the agreement included in the purchase contract, they want to know
> what type of antenna will be installed. I intend to install some type
> of vertical, but have not decided exactly which one. (Any
> reccomendations?) Anyway to the point, they want something to asure
> them that I would not interfere with neiboring radio/TV and a set of
> descriptors for the proposed antenna. I am looking for something
> fairly generic that I could give them that would have the least impact
> on my ability to install/change antennas. I was thinking something
> like "I agree that my equipment will not cause undue interference with
> properly engineered equipment in the area. In all cases, FCC
> regulations regarding radio frequency interference shall be adhered
> to. Antenna will be .... (need the help here.) What do I need to
> change/add?
> Help.
> N2WMD
> Scott
>

5485. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 17:40:56 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <auff8a$d6m$1@slb5.atl.mindspring.net>
Source record: 128323

Yuri:

Happy Holidays...

[snip]
> Projecting this into antenna situation, where antenna is the transducer
between
> RF in the wires and RF in the space.
> Can we increase efficiency of this transition by any means?
> Is high antenna Q of any benefit to make it more "sensitive" to RF
extraction
> from the space?
> What about matching the space impedance (377 ohms) with antenna impedance?
> One thing we know the capture area of the antenna (array) is one factor.
> Another factor is the terrain (shaping the pattern) and ground conditions
> (altitude, ocean).
> I have not seen much elaboration on this subject in the (limited)
selection of
> literature I had the chance to read. Is this non-important or overlooked
> subject? Any pointers to books or web pages?
>
> 73 Yuri,
> K3BU, VE3BMV, VE1BY etc.
[snip]

Unless Cecil comes riding in on his EM wave to make changes to commonly
accepted theory,
such interactions would only be observed in the "near field" where "return
currents" exist.

In the "far field" the photons [radiant energy] are essentially
disconnected from the source
and do not interact with the circuit oriented phenomena in the source that
emitted the energy.

Although circuit theory is derived as a subset and an approximation from the
more
complete wave theory, the circuit theoretic approximation involves the
complete
absence of radiation from the circuit theoretic models. The impedance
of space [377 Ohms] is a wave theoretic phenomena [Ratio of E to H fields]
and has essentially no relationship with circuit theoretic phenomena [Ratio
of V to I].

To the extent that EM theories are complete, the "impedance" of space and
the

"impedance" of a circuit are in two completely separate domains of influence and
never directly interact.

The acceleration of electric charges in a circuit, causes the creation of photons and the
complete release/escape of radiant energy from the circuit carried off in those photons.

From the circuit theoretic view, this loss of energy [radiation] is observed/felt as a
resistance in the circuit, i.e. the radiation resistance, and not the impedance of free
space.

It is unfortunate that we use the same name [impedance] for the ratio of the electric
to magnetic fields as for the ratio of voltage to current. And they do have the same
units! But just because things have the same units does not mean that they are the
same or comensurate. For example the voltage across my car battery divided by the current in your flashlight has units of resistance but it is not a resistor.

There are lots of examples of this re-use of terminology in technology that often
leads to mis-understandings. The whole area of reflected power is rife with similar
misleading uses of terminology.

--
Peter K1PO
Indialantic By-the-Sea, FL

5486. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 18:07:58 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <7vdm0vo4elqtd6qvivlr6r034k16v2smuh@4ax.com>
Source record: 128324

On 26 Dec 2002 15:57:38 GMT, k3bu@aol.com (Yuri Blanarovich) wrote:

>Here is the question for the enlightened:
>
>We know from the tuned circuits and RF transformers that the higher the Q, the
>sharper the tuning and coupling efficiency.

Q does not lead to coupling efficiency, it follows from it. Both are victims of the same factor, Iï¿½R loss. Hi Q is not very useful if you are trying to get power out of the antenna - do you want to save it or spend it? Even the vaunted final's tank works best at a Q around or less than 10. The difference here is in the subtle distinction of loaded and unloaded Q. The load should swamp any Iï¿½R issues and there is your statement of efficiency. Thus it follows that you are looking for an unloaded Hi-Q and a loaded Low-Q from the same design. How anyone could measure the unloaded Q of a dipole is left for you to work out. ;-)

>Projecting this into antenna situation, where antenna is the transducer between
>RF in the wires and RF in the space.
>Can we increase efficiency of this transition by any means?

The common halfwave dipole is already quite efficient, unless, of course, you choose to bury it in the ground.

Nearly every treatment and discussion of the antenna seems to divorce its roots, the transmission line, from its matching aspect.

First, consider what we call current lobes or nulls. If we were looking at a transmission line we would call them SWR. The standard halfwave dipole is also known as a Standing Wave antenna for good reasons. We already accept that the antenna is loaded by the ï¿½ther and by abstraction, that load is at the end of the tips of the dipole standing at a value of 377 Ohms. We observe a value of 72 Ohms at the interior connections of those same tips, ï¿½ wave away.

The dipole can also be thought of as a Quarter-Wave, non-linear, leaky transmission line terminated by a high Z (377 Ohms). The characteristic Z of this transmission line varies in the same direction of wire spread, but as a Quarter-Wave match it should exhibit an average Z of 166 Ohms. The correlative to this argument is found in the conical dipole whose geometry employs a linear, leaky transmission line concept. By further correlation, the conical dipole is more widebanded and thus lower Q'ed than the thin wire dipole. Any boon in efficiency improvement is probably lost in the decimals.

>Is high antenna Q of any benefit to make it more "sensitive" to RF extraction
>from the space?
>What about matching the space impedance (377 ohms) with antenna impedance?
>One thing we know the capture area of the antenna (array) is one factor.
>Another factor is the terrain (shaping the pattern) and ground conditions
>(altitude, ocean).
>I have not seen much elaboration on this subject in the (limited) selection of
>literature I had the chance to read. Is this non-important or overlooked
>subject? Any pointers to books or web pages?
>
>73 Yuri,
>K3BU, VE3BMV, VE1BY etc.
>

Hi Yuri,

I covered this tangentially in my analysis of the fractal antenna.
One page is dedicated to their 377 Ohm Antenna Z across very large
bandwidths:
http://www.qsl.net/kb7qhc/antenna/fractal/Wide%20Band%20Comparisons.htm

The price to achieve this performance is found in the scope of the
design, specifically in the 64 meters of wire required to support the
"flat" matches across the higher HF frequencies. I treat the
radiation issue separately, but I would offer 9 - 12dBi in a perfect
world; unfortunately, not in a direction that would be intuitive from
the physical design of the antenna (no boom to clue us in).

73's
Richard Clark, KB7QHC

5487. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 18:30:52 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0B4ADC.3090406@ieee.org>
Source record: 128326

Peter O. Brackett wrote:
> Unless Cecil comes riding in on his EM wave to make changes to commonly
> accepted theory, ...

I'm not making changes to commonly accepted theory, Peter, I'm just reminding folks what was the commonly accepted theory in the 1950's before virtually everyone was seduced by the shortcuts inherent in the steady-state model. Or as my Texas A&M professor put it, "Unless one is dealing with DC, there is nothing steady about the steady-state model". I was taught that the steady-state model is a bunch of mathematical shortcuts that work but have little to do with what is happening in reality.

In particular#1, waves moving in opposite directions in a fixed Z0 lossless transmission line have no effect on each other. They pass each other "like ships in the night".

In particular#2, a virtual impedance cannot be the cause of anything since it is just an effect of a V/I ratio. I am amazed at the number of otherwise knowledgeable RF engineers who believe that a shorted 1/4WL of lossless transmission line blocks any RF energy from flowing into it because it exhibits a virtual impedance of infinity. Here's that stub.

x------1/4WL lossless T-line---shorted
Now apply a signal:

Signal Generator-----x------1/4WL lossless T-line---shorted

Do the reflections really occur at point 'x' because the virtual impedance at point 'x' is infinite? Or do the reflections really occur at the short because the short is really there?
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5488. For Sale ofr Trade

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 20:00:16 UTC
From: Carl Domanico <carl.domanico@verizon.net>
Message-ID: <3E0B6002.3030302@verizon.net>
Source record: 128327

Hi I have a Standard C-5718DA 144/440 Remotable Mobile...I have the optional Memory Chip Installed, allowing for 100 Memory Channels per band. I have spare Mic Extention Cables at different lengths....I purchased the radio and accessories new...I'm really looking for a swap not cash....I'm in the Market for an High Frequency Radio....All offers will be looked in to.....

Thanks
Carl
N2MFW

5489. Re: For Sale ofr Trade

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 20:24:40 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0B6588.6090702@ieee.org>
Source record: 128328

Carl Domanico wrote:
> I'm really looking for a swap, not cash....

You might have more luck on rec.radio.swap
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5490. What is a Stub? Re: 40m dipole on 15 meters???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 20:40:02 UTC
From: BICisfag <ll@jj.com>
Message-ID: <3E0B6922.70415877@jj.com>
Source record: 128331

What is a Stub and how do I make one?

Dale Parfitt wrote:

> Dave Shrader wrote:
>
> > It should if ...
> >
> > 1) it is resonant at or below 7.1 MHz
> > 2) it is relatively free of surrounding obstructions trees etc.
> > 3) it is relatively high
> > 4) it is truly cut for 7.1 MHz or lower, not pruned to work on your
> > favorite frequency
> > 5) the antenna load impedance is no longer ~50 ohms on 21 MHz it
> > increases to something in the 100 ohm range.
> > 6) etc.
> >
> > Conclusion: a 7.2 MHz antenna has a high feedpoint impedance with
> > significant reactance at 21.3 MHz. EZNEC calculates a VSWR of 7:1 at
> > 21.45 MHz for a 7.2 MHz dipole.
> >
> > So, a 7.0 to 7.1 MHz dipole will show a VSWR of 2:1 or greater in a 50
> > ohm system when operated at 21 MHz. A 7.2 MHz dipole shows a high VSWR
> > in a 50 ohm system because resonance is now 21.6 MHz.
> >
> > Deacon Dave, W1MCE
> >
> > BICisfag wrote:
> > > My 40 m dipole seems to work as good as anything I have
> > > on RX on 15 m.
> > > It is coax fed but my 989 MFJ tuner won't tune the damn
> > > thing very good at all.
> > > Whats up with that. I thought it was a 3rd harmonic and should
> > > tune easily.
> > >
>
> All you need to do is attach a 6-10" stub at the 11' points either side of
> center and then trim them for best VSWR where you desire it on 15M.
> Because the stubs are at a low Z, or hi current point on 40M, there will
> appear invisible.
>
> Dale W4OP

5491. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 20:45:24 UTC
From: Dave Shrader <pat.shrader@attbi.com>
Message-ID: <3E0B6A27.F3A534CC@attbi.com>
Source record: 128329

3.75 MHz was intended.

ON5MJ wrote:
>
> Thank you for the translation. It was also my idea that "cps" must mean
> cycles per second but it was quite strange to cut a dipole for a frequency
> of 3.75 cps or 3.75 Hz presently. Did I miss an episod ?
>
> 73 de ON5MJ - Jacques.

5492. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 20:56:47 UTC
From: k3bu@aol.com
Message-ID: <20021226155647.01705.00000518@mb-cu.aol.com>
Source record: 128330

> For example the voltage across my car battery divided
>by the current in your flashlight has units of resistance but it is not a
>resistor.
>
>Peter K1PO
>Indialantic By-the-Sea, FL
>
>
>

Hi Peter,
Happy Holidays to you and bunch!

Assuming my flashlight is connected to your battery and has incandescent lightbulb, I was taught that it is resistor with resistance. What's wrong with that picture?
If I connected to my battery can I call it resistor? :-)

I see what you are saying about two different domains and terminology.
So I gather that our first goal is to efficiently kick them photons off the wire into the space (low losses in feeders and antennas). So besides that there is not much we can do to make the space (atmosphere) to "suck" them photons more efficiently than we are presently doing?

What about curtain arrays (and rhombics), with larger apperture, aren't they providing better coupling to the space? Antenna modeling software does not account for coupling to space, and some people dump on them, but those who built and used them have (anecdotal) feeling and "evidence" that thay play very well.

Then, disregarding propagation properties, is there any appreciable difference in having antennas at low grounds, vs. being very high in the mountains (thinner air)?

Yuri

5493. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 20:59:35 UTC
From: richardharrison@webtv.net
Message-ID: <21472-3E0B6DB7-931@storefull-2315.public.lawson.webtv.net>
Source record: 128332

Yuri, K3BU wrote:
"Can we increase the efficiency of this transition by any means?"

Radiation efficiency is achieved by making radiation resistance high as compared with loss resistance which heats the conductors and non-conductors of the antenna and its environment.

No antenna is truly non-directional, so it is more effective to have tne antenna`s most favored directions agree with the desired directions of communications.

In space wave communications, polarizations of the electric fields of the sending and receiving antennas need to agree.

In sky wave communications, the vertical radiation angles of sender and receiver should match.

A good book to confirm the above is Ed Laport`s "Radio Antenna Engineering"

Best regards, Richard Harrison, KB5WZI

5494. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 21:34:02 UTC
From: k3bu@aol.com
Message-ID: <20021226163402.01705.00000519@mb-cu.aol.com>
Source record: 128333

>
>On 26 Dec 2002 15:57:38 GMT, k3bu@aol.com (Yuri Blanarovich) wrote:
>
>>Here is the question for the enlightened:
>>
>>We know from the tuned circuits and RF transformers that the higher the Q,
>the
>>sharper the tuning and coupling efficiency.
>
>Q does not lead to coupling efficiency, it follows from it. Both are
>victims of the same factor, Iï¿½R loss.

Well, coupling effciency would be between the antenna and space. Let's say it what it is - constant (for particular situation). The Q of the antenna is not just I2R losses, but referring to the physical properties of radiator - thin wire (within reason) has higher Q (narrow bandwidth) thick tower structure has lower Q (wider bandwidth). That is the (RF) Q I am looking at.

> Hi Q is not very useful if you
>are trying to get power out of the antenna - do you want to save it or
>spend it? Even the vaunted final's tank works best at a Q around or
>less than 10. The difference here is in the subtle distinction of
>loaded and unloaded Q. The load should swamp any Iï¿½R issues and there
>is your statement of efficiency. Thus it follows that you are looking
>for an unloaded Hi-Q and a loaded Low-Q from the same design. How
>anyone could measure the unloaded Q of a dipole is left for you to
>work out. ;-)

SWR curve?

>
>>Projecting this into antenna situation, where antenna is the transducer
>between
>>RF in the wires and RF in the space.
>>Can we increase efficiency of this transition by any means?
>
>The common halfwave dipole is already quite efficient, unless, of
>course, you choose to bury it in the ground.
>
>Nearly every treatment and discussion of the antenna seems to divorce
>its roots, the transmission line, from its matching aspect.
>

No argument with antenna effciency pre say, I am looking for improvements in "sucking" abilities of the media (air) to couple more effciently to antennas.

>First, consider what we call current lobes or nulls. If we were
>looking at a transmission line we would call them SWR. The standard
>halfwave dipole is also known as a Standing Wave antenna for good
>reasons. We already accept that the antenna is loaded by the ï¿½ther
>and by abstraction, that load is at the end of the tips of the dipole
>standing at a value of 377 Ohms. We observe a value of 72 Ohms at the
>interior connections of those same tips, ï¿½ wave away.
>
>The dipole can also be thought of as a Quarter-Wave, non-linear, leaky
>transmission line terminated by a high Z (377 Ohms). The
>characteristic Z of this transmission line varies in the same
>direction of wire spread, but as a Quarter-Wave match it should
>exhibit an average Z of 166 Ohms. The correlative to this argument is
>found in the conical dipole whose geometry employs a linear, leaky
>transmission line concept. By further correlation, the conical dipole
>is more widebanded and thus lower Q'ed than the thin wire dipole. Any
>boon in efficiency improvement is probably lost in the decimals.
>

few decimals here, few decimals there, very soon we could be talking about
whole ball of wax?

>>Is high antenna Q of any benefit to make it more "sensitive" to RF
>extraction
>>from the space?
>>What about matching the space impedance (377 ohms) with antenna impedance?
>>One thing we know the capture area of the antenna (array) is one factor.
>>Another factor is the terrain (shaping the pattern) and ground conditions
>>(altitude, ocean).
>>I have not seen much elaboration on this subject in the (limited) selection
>of
>>literature I had the chance to read. Is this non-important or overlooked
>>subject? Any pointers to books or web pages?
>>
>>73 Yuri,
>>K3BU, VE3BMV, VE1BY etc.
>>
>
>Hi Yuri,
>
>I covered this tangentially in my analysis of the fractal antenna.
>One page is dedicated to their 377 Ohm Antenna Z across very large
>bandwidths:
>http://www.qsl.net/kb7qhc/antenna/fractal/Wide%20Band%20Comparisons.htm
>
>The price to achieve this performance is found in the scope of the
>design, specifically in the 64 meters of wire required to support the
>"flat" matches across the higher HF frequencies. I treat the
>radiation issue separately, but I would offer 9 - 12dBi in a perfect
>world; unfortunately, not in a direction that would be intuitive from
>the physical design of the antenna (no boom to clue us in).
>

>73's
>Richard Clark, KB7QHC
>

I am trying to digest the points.
One think that keeps popping in my mind is the statement of K8CFU, who did some measurments on the verticals and found that folded dipole had "surprisingly" more FS than just straight monopole.

Yuri

5495. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 21:36:31 UTC
From: k3bu@aol.com
Message-ID: <20021226163631.01705.00000520@mb-cu.aol.com>
Source record: 128334

>
>An antenna with an "infinite" return loss at its feedpoint already radiates
>as much power as it gets. The only ways to increase field strength for a
>given receive location, time, frequency, and antenna input power are to
>modify the radiation patterns of the antenna, and/or set up a propagation
>path having less loss.
>
>Richard Fry

That is all fine and known, but is there any way to improve on the coupling
effciency between the wire and the air? That is the question.
If not, I will sleep better :-)

73 Yuri

5496. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 21:44:23 UTC
From: k3bu@aol.com
Message-ID: <20021226164423.01705.00000521@mb-cu.aol.com>
Source record: 128335

>Yuri, K3BU wrote:
>"Can we increase the efficiency of this transition by any means?"
>

Richard Harrison, KB5WZI wrote:
>Radiation efficiency is achieved by making radiation resistance high as
>compared with loss resistance which heats the conductors and
>non-conductors of the antenna and its environment.

We know that and about shaping the beam, but what I am questioning, is there way to improve "kicking" off photons from the wire to the space, the coupling between the antenna element and the space environment. Like if I heated the wire red hot (using Peters battery :-), would that help?

Yuri

5497. Re: What is a Stub? Re: 40m dipole on 15 meters???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 21:55:15 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0B7AC3.2050607@ieee.org>
Source record: 128336

BICisfag wrote:
> What is a Stub and how do I make one?

A stub is a piece of transmission line that acts either like a
capacitor, inductor, open, or short. You can use a capacitor
or inductor instead of a stub. But I guess real hams use stubs. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5498. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 21:58:34 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0B7B8A.8070803@ieee.org>
Source record: 128337

Yuri Blanarovich wrote:
> That is all fine and known, but is there any way to improve on the coupling
> efficiency between the wire and the air?

Yes, there is. Use a superconductor. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5499. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 22:21:30 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <aufvd9$6l79h$1@ID-175933.news.dfncis.de>
Source record: 128338

"Richard Harrison" <richardharrison@webtv.net> wrote
> No antenna is truly non-directional, so it is more effective to have tne
> antenna`s most favored directions agree with the desired directions of
> communications.

An isotropic radiator does not exist in the physical world, but many antennas designed for commercial FM and TV broadcast transmission are omnidirectional in the horizontal plane (+/- a few dB), over a fairly wide span of elevation angles.

Richard Fry

5500. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-26 22:45:46 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <aug0qo$4qk$1@slb1.atl.mindspring.net>
Source record: 128339

Yuri:

[snip]
> That is all fine and known, but is there any way to improve on the
coupling
> effciency between the wire and the air? That is the question.
:
:
> 73 Yuri
[snip]

Yes there is... "more wire in the air!"

The more the better.

Season's greetings,

--
Peter K1PO
Indialantic By-the-Sea, FL

5501. Re: Newbie question about antenna materials

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 00:04:52 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aug5f2lrc1@sparta.btinternet.com>
Source record: 128340

> The insulation on the wires will effect the length to some small ammount
,
> maybe only an inch or two. You probalby will not notice the effect. If
the
> antenna does seem to resonate slightly lower in frequency , it may be the
> insulation, cut an inch off each wire and try again.

==========

Q1. What would you suspect if the antenna appears to resonate slightly
higher in frequency than expected?

Q2. How would you determine the resonant frequency of the antenna anyway
without leaving the shack?

Reg

5502. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 00:40:26 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0BA17A.2020703@ieee.org>
Source record: 128341

Peter O. Brackett wrote:
> Yes there is... "more wire in the air!" The more the better.

Back in the 50's, my home town in Texas was 90 miles away from
the nearest TV transmitter and we received all our TV shows on
the local cable system whose tower was about 100 yards from my
Dad's property. We lived on two acres and I strung 1000 ft. of
copperweld around the property. When I tried to load my ART-13
into that antenna, I completely knocked out the TV reception
for the entire town.
--
cheers, CAM http://www.qsl.net/w5dxp

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5503. Re: 40m dipole on 15 meters???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 00:51:59 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212261651.6575e11@posting.google.com>
Source record: 128342

BICisfag <ll@jj.com> wrote in message news:<3E0A04BA.2393E6AC@jj.com>...
> My 40 m dipole seems to work as good as anything I have
> on RX on 15 m.
> It is coax fed but my 989 MFJ tuner won't tune the damn
> thing very good at all.
> Whats up with that. I thought it was a 3rd harmonic and should
> tune easily.

It should , using the tuner. I find it hard to believe that that tuner won't match that. I have the same tuner, and it will match nearly anything. You must be passing the proper settings up some way. I just checked my 40 meter dipole on 15m. The SWR was over 2:1 at 21.300. My tuner matches that no problem at all. The inductor was only at 2-3 turns from zero. Meter is flat on the peg. Dunno, me thinks you are not tuning carefully enough, or using the wrong methods to find the correct spot in tuning. BTW, that tuner will match a load at usually many settings of the knobs. But only the one using the least inductance to get a usable match is the correct setting. MK

5504. Re: What is a Stub? Re: 40m dipole on 15 meters???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 01:44:17 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E0BB029.3090200@attbi.com>
Source record: 128343

A transmission line 'stub' is a length of transmission line that is open or shorted at one end. It is effectively a capacitor or inductor, depending on length, and can be used to achieve a match [VSWR = 1:1] if connected at a selected point in the basic transmission line.

Example:

```
| Antenna
Transmission line |
--------------------|---------| VSWR > 3:1
VSWR 1:1 |
|stub
```

Designing stubs requires a knowledge of the reflection coefficient and how to use a Smith Chart. The length and location of the stub achieves a conjugate match at the stub location and the transmission line is 'flat' from there to the transmitter.

There are solutions for single stub and double stub matching. Note, stub matching is optimized for one frequency only, or a narrow band of frequencies.

73, Deacon Dave, W1MCE

BICisfag wrote:
> What is a Stub and how do I make one?
>

5505. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 01:49:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <v0ncd1749hs595@corp.supernews.com>
Source record: 128344

Provided that an antenna has no ohmic loss, the "coupling efficiency" --
as you're using the term -- is 100% for any antenna: all the power
applied to it is radiated. You can't improve on that. Unless you're in
an antenna manufacturing marketing department. Sorry, there's no free
lunch or magic bullet.

Of course, the efficiency of any antenna can be improved by reducing the
ohmic loss, but for a lot of common antennas, the possible improvement
is negligible.

Roy Lewallen, W7EL

Yuri Blanarovich wrote:

> That is all fine and known, but is there any way to improve on the coupling
> effciency between the wire and the air? That is the question.
> If not, I will sleep better :-)
>
> 73 Yuri

5506. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 01:49:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <v0nce36hiiq9a6@corp.supernews.com>
Source record: 128345

Yuri Blanarovich wrote:
>
> We know that and about shaping the beam, but what I am questioning, is there
> way to improve "kicking" off photons from the wire to the space, the coupling
> between the antenna element and the space environment. Like if I heated the
> wire red hot (using Peters battery :-), would that help?
>
> Yuri
>

No.

Roy Lewallen, W7EL

5507. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 01:51:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <v0nchh7co3cpd8@corp.supernews.com>
Source record: 128346

OC_CAM's Razor wrote:
> Yuri Blanarovich wrote:
>
>> That is all fine and known, but is there any way to improve on the
>> coupling
>> efficiency between the wire and the air?
>
>
> Yes, there is. Use a superconductor. :-)

No, that won't have any effect at all at the "coupling efficiency" as Yuri is using the term. All it'll do is reduce the ohmic loss. If you're using a full size dipole, Yagi, quad, or a host of other antennas, you wouldn't be able to tell the difference (except in your refrigeration bill).

Roy Lewallen, W7EL

5508. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 01:53:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <v0nclkbcpau715@corp.supernews.com>
Source record: 128347

Peter O. Brackett wrote:
> Yuri:
>
> [snip]
>
>>That is all fine and known, but is there any way to improve on the
>
> coupling
>
>>effciency between the wire and the air? That is the question.
>
> :
> :
>
>>73 Yuri
>
> [snip]
>
> Yes there is... "more wire in the air!"
>
> The more the better.
>
> Season's greetings,
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL

Not so. A 10 wavelength dipole fed with 100 watts doesn't couple even a milliwatt more power into the air than a half wavelength dipole does.

Egad, the lack of fundamental understanding of conservation of energy is deeper than I thought.

Roy Lewallen, W7EL

5509. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 02:30:02 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0BBB2A.5060003@ieee.org>
Source record: 128348

Roy Lewallen wrote:

> Peter O. Brackett wrote:
>> Yes there is... "more wire in the air!" The more the better.

> Not so. A 10 wavelength dipole fed with 100 watts doesn't couple even a
> milliwatt more power into the air than a half wavelength dipole does.
>
> Egad, the lack of fundamental understanding of conservation of energy is
> deeper than I thought.

I suspect it was a joke, Roy, based on an old wives' tale.
--
cheers, CAM http://www.qsl.net/w5dxp

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5510. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 04:13:26 UTC
From: whagen6@cs.com
Message-ID: <20021226231326.17035.00000284@mb-cf.news.cs.com>
Source record: 128349

how big a yard do you have?
:)

5511. Re: Newbie question about antenna materials

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 07:06:23 UTC
From: richardharrison@webtv.net
Message-ID: <11580-3E0BFBEF-54@storefull-2313.public.lawson.webtv.net>
Source record: 128350

Reg, G4FGQ wrote:
"What would you suspect if the antenna appears to resonate slightly higher in frequency than expected?"

Answer: A mistake in measurement or construction.

Reg also wrote:
"How would you determine the frequency of the antenna anyway without leaving the shack?"

Answer: Target characteristics of the antenna are needed. At resonance the antenna should match its feeder.

Minimum reflected power represents the resonant frequency of a matched antenna.

A VHF ground-plane antenna with (4), 45-degree drooping radials, several wavelengths above earth fits the description of an antenna which should match 50-ohm coax at resonance.

An antenna admittance or impedance bridge can be used to determine impedance from the shack and this will be the antenna impedance if the feedline is 1/2-wavelegth.

An antenna noise bridge (mine is a Palomar) can be balanced for minimum noise detected by a receiver to determine antenna resonance without leaving the shack. Again, a 1/2-wavelength feedline would be helpful. The calibrated dial of the receiver indicates the frequency.

Best regards, Richard Harrison, KB5WZI

5512. Re: Newbie question about antenna materials

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 07:43:53 UTC
From: richardharrison@webtv.net
Message-ID: <11580-3E0C04B9-58@storefull-2313.public.lawson.webtv.net>
Source record: 128351

I wrote:
"A VHF ground-plane---several wavelengths above earth---."

And: "---1/2-wavelength feedline would be helpful"

Multiples of 1/2-wavelength also repeat an impedance, so, I really
didn`t mean to specify the impossible.

Best regards, Richard Harrison, KB5WZI

5513. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 09:35:08 UTC
From: Bob Cameron <bob.cameron.remove@optusnet.com.au>
Message-ID: <ds6hua.po9.ln@p400bob.lse.com.au>
Source record: 128271

> Hi All
>
> Silly question time.

Okay thank you all for your input on this.

In hindsight I should have been a bit more specific with the question.

The next part is (hopefully) going to maybe you think. Lets forget about the antenna being used for transmitting and concentrate on receiving. One of the "gurus" in my local 2M ragchewing group maintains that for receive a resonant antenna makes a huge difference. His answer to my doubts were "go and try it".

I'd like to get your feedback on his statement...

Cheers Bob VK2YQA

5514. Re: 40m dipole on 15 meters???

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 10:24:07 UTC
From: BICisfag <ll@jj.com>
Message-ID: <3E0C2A46.46FEBAA7@jj.com>
Source record: 128353

thanks I'll recheck it.

Mark Keith wrote:

> BICisfag <ll@jj.com> wrote in message news:<3E0A04BA.2393E6AC@jj.com>...
> > My 40 m dipole seems to work as good as anything I have
> > on RX on 15 m.
> > It is coax fed but my 989 MFJ tuner won't tune the damn
> > thing very good at all.
> > Whats up with that. I thought it was a 3rd harmonic and should
> > tune easily.
>
> It should , using the tuner. I find it hard to believe that that tuner
> won't match that. I have the same tuner, and it will match nearly
> anything. You must be passing the proper settings up some way. I just
> checked my 40 meter dipole on 15m. The SWR was over 2:1 at 21.300. My
> tuner matches that no problem at all. The inductor was only at 2-3
> turns from zero. Meter is flat on the peg. Dunno, me thinks you are
> not tuning carefully enough, or using the wrong methods to find the
> correct spot in tuning. BTW, that tuner will match a load at usually
> many settings of the knobs. But only the one using the least
> inductance to get a usable match is the correct setting. MK

5515. Satellite Dish for Ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 10:39:14 UTC
From: william brooks <kv4dt@nri55.com>
Message-ID: <v0ob54pm4htl04@corp.supernews.com>
Source record: 128352

Hello,

Has anyone tried converting the old Ku-band Satellite Dish Antenna for ham radio application. If so, can you send me some information, i.e. what freq can be converted for, how much trouble, construction plans, etc.

Thanks
William Brooks
KV4DT

5516. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 13:19:30 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <auhk11$l0i$1@knossos.btinternet.com>
Source record: 128354

> > Do you recall your so-called 450-ohm ladder line which (you think!)
actually
> > has an impedance of 390 ohms. That makes a mess of your analysis of
switched
> > variable-length ladder-line tuners.
>
> Why? It works essentially the same with 300 ohm ladder-line as with
> 450 ohm ladder-line as with 600 ohm open-wire feedline.

==========

Indeed it does work essentially way with any impedance line.

Unfortnately, changing the line impedance COMPLETELY changes the very limited set of frequencies at which it is possible to obtain useable values of resonant frequency and low SWR in HF amateur bands. You have shown that only 290-ohm feedline works.

Its a law of nature that at least TWO adjustable knobs are needed on any antenna tuner. You have only one - that which changes line length. The knob which adjusts line impedance is fixed at 290 ohms which by chance happens to work. Good for you - you discovered it!

Change amateur band frequencies and you have to change line impedance at the same time keeping your fingers crossed.

Yours, Reg, G4FGQ

5517. Re: Satellite Dish for Ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 13:40:58 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3E0C550D.89D9C793@verizon.net>
Source record: 128355

william brooks wrote:

> Hello,
>
> Has anyone tried converting the old Ku-band Satellite Dish Antenna for ham
> radio application. If so, can you send me some information, i.e. what freq
> can be converted for, how much trouble, construction plans, etc.
>
> Thanks
> William Brooks
> KV4DT

How big is the surface- is it prime focus or offset fed?
It might be useful for 10GHz terrestrial or AO-40.

Dale W4OP

5518. CQ! Do You Recognise This HF Amateur Mobile Antenna by description? Help Requested!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 14:40:48 UTC
From: wilf_san2@yahoo.co.uk
Message-ID: <4bd1bd4f.0212270640.5b2e0f5e@posting.google.com>
Source record: 128356

CQ! Please can you help me? Do you recognise this HF amateur mobile antenna by it's description?

It has a huge chromed sprung base, slightly cone-shaped, on top of a round black circular insulator, fitted on to a chromed mounting plate, with J-bolts (for bumper mounting?). It has an SO-239 socket below.

The sprung base is then topped by a chrome solid section about three-quarters of an inch in diameter, and about 3ft in height, which ends in a grooved collet constraining a chrome knuckle-fold hinge joint (in effect, giving the option to drop the whole antenna to half-height, I assume, to allow a vehicle to drive without spiking birds). This section reminds me of a mike stand, and it has a small captive plate drilled-out at this knuckle-fold to allow two support tielines to go back on to the vehcle body.

This big pole section is then followed by a *huge* grey plastics bi-cone centre trap, 3/8ths threaded top+bottom, with three variable capacitor and coil sections, each of which is adjustable from outside, and marked beside each access hole I, II and III. There is a central perspex inspection ring, to see these beefy components.

The very top of the antenna is clearly meant to be a whip (which is missing), so the overall effect is a centre-trap multiband collapsable HF/low VHF mobile antenna. Very good build quality, but not anywhere near milspec Shakespeare etc

My questions are: what make/model/vintage is it? What band(s)? How long should the missing whip be? What maximum power? And is it as good as it looks? This antenna is a very rare sight over here in the UK, so I would appreciate any help anyone anywhere can offer.

Wilf, Scotland

5519. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 14:55:17 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0C69D5.8030704@ieee.org>
Source record: 128357

Reg Edwards wrote:
> Its a law of nature that at least TWO adjustable knobs are needed on any
> antenna tuner.

It depends upon the antenna impedance you are trying to match. The
WWII ARC-5 transmitters had only one tuning knob for the military
during wartime. They set the frequency and then adjusted a single
series inductance.

> You have only one - that which changes line length. The
> knob which adjusts line impedance is fixed at 290 ohms which by chance
> happens to work. Good for you - you discovered it!

I discovered a lot of other things also, Reg. The feedpoint impedances are
more reasonable when the dipole is 1/2WL on the lowest frequency of operation.
The resulting feedpoint impedances tend to describe a spiral on a Smith Chart
throughout the entire HF range of frequencies. Most of those impedances lie
within the doughnut described below.

> Change amateur band frequencies and you have to change line impedance at the
> same time keeping your fingers crossed.

Of course, some planning is in order. One can use EZNEC to estimate whether
it will work or not. Set the SZ option to whatever Z0 you intend to use and
run EZNEC on that dipole for all bands of interest. If the SWR is between
3:1 and 12:1 for 300 ohm twinlead, between 4.5:1 and 18:1 for 450 ohm ladder-
line, and between 6:1 and 24:1 for 600 ohm open-wire line, you can match it
to a 50 ohm SWR of less than 2:1 by varying the length of the feedline. And
of course, one needs a guard band to account for variations.

Here's another way. Write down the feedpoint impedances provided by EZNEC
for all the bands of interest. Take a Smith Chart and draw two circles,
one through 25+j0 ohms and the other through 100+j0 ohms. That will give
you a doughnut on the Smith Chart. Plot your antenna feedpoint impedances
on that chart. If the antenna impedance is inside the doughnut, then the
antenna can be matched to a 50 ohm SWR of 2:1 or less by varying the length
of the feedline.

There are an infinite number of antenna impedances inside that doughnut, Reg.
Why would you not be satisfied with matching an infinite number of feedpoint
impedances without a tuner? Why would you ever need to match more than an
infinite number of feedpoint impedances? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5520. Re: CQ! Do You Recognise This HF Amateur Mobile Antenna by description? Help Requested!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 15:42:49 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <olso0voacge5uimj2dsr60iipmh0tpu6t6@4ax.com>
Source record: 128358

On 27 Dec 2002 06:40:48 -0800, wilf_san2@yahoo.co.uk (wilf_san2)
wrote:

>CQ! Please can you help me? Do you recognise this HF amateur mobile
>antenna by it's description?
>
It sounds sorta like the Hustler antennas. The mount is separate from
the antenna. IOW you could purchase the antenna and then put what
ever base under it you wished (as long as it was strong enough)

I don't know if they are still made but back in the 70s they were
quite popular.

In the early 70s I had one on my car. I used a straight bumper hitch
with the antenna mounted and a base insulator mounted directly to the
hitch.

You could fold the antenna over and lay it down right on the roof of
the car for going into the garage, or parking ramp.

The top sections, called resonators were a loading coil and whip
combination. The early loading coils covered the pre WARC bands 80
through 10.

As to dimensions, "If we are talking about the same antenna" were
about 1/2, or 5/8ths inch base section with the collet and hinge. As
I recall the base section continued a couple feet above the
collett/hinge, where the top section screwed on. The fitting was in
the bottom of the loading coil.

Roger Halstead (K8RI EN73 -- ARRL Life Member)
www.rogerhalstead.com
N833R World's oldest Debonair? (S/N CD-2)

>It has a huge chromed sprung base, slightly cone-shaped, on top of a
>round black circular insulator, fitted on to a chromed mounting plate,
>with J-bolts (for bumper mounting?). It has an SO-239 socket below.
>
>The sprung base is then topped by a chrome solid section about
>three-quarters of an inch in diameter, and about 3ft in height, which
>ends in a grooved collet constraining a chrome knuckle-fold hinge
>joint (in effect, giving the option to drop the whole antenna to
>half-height, I assume, to allow a vehicle to drive without spiking
>birds). This section reminds me of a mike stand, and it has a small
>captive plate drilled-out at this knuckle-fold to allow two support

>tielines to go back on to the vehcle body.
>
>This big pole section is then followed by a *huge* grey plastics
>bi-cone centre trap, 3/8ths threaded top+bottom, with three variable
>capacitor and coil sections, each of which is adjustable from outside,
>and marked beside each access hole I, II and III. There is a central
>perspex inspection ring, to see these beefy components.
>
>The very top of the antenna is clearly meant to be a whip (which is
>missing), so the overall effect is a centre-trap multiband collapsable
>HF/low VHF mobile antenna. Very good build quality, but not anywhere
>near milspec Shakespeare etc
>
>My questions are: what make/model/vintage is it? What band(s)? How
>long should the missing whip be? What maximum power? And is it as good
>as it looks? This antenna is a very rare sight over here in the UK, so
>I would appreciate any help anyone anywhere can offer.
>
>Wilf, Scotland

5521. Re: Satellite Dish for Ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 15:50:24 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <f8to0vs4c3jsqvhjlimpffnrqibrmk2v6c@4ax.com>
Source record: 128359

On Fri, 27 Dec 2002 04:39:14 -0600, "william brooks" <kv4dt@nri55.com>
wrote:

>Hello,
>
>Has anyone tried converting the old Ku-band Satellite Dish Antenna for ham
>radio application. If so, can you send me some information, i.e. what freq
>can be converted for, how much trouble, construction plans, etc.

I'm planning on using an 11 foot C-band dish, which also works on KU
band for 2.3 Gig
The vast majority of C-band dishes will also work on Ku, with the
exception of the mesh dishes that have the *large* openings, or holes.

You'd probably want to use an As/El mount instead of the polar mount
if considering EME. For EME you'd probably want a dish on the order
of 12 feet or larger. Point to point the standard polar mount, with
the elevation lowered to 0 would work, but it is difficult to get the
larger dishes mounted very high at they are both heavy and have one
whale of a wind load. It takes a pretty big support to get them above
20 feet.

The smaller dishes can be side mounted on a tower for point-to-point
up in the 10 Gig range.

Roger Halstead (K8RI EN73)
www.rogerhalstead.com
N833R World's oldest Debonair? (S# CD-2)

>
>Thanks
>William Brooks
>KV4DT
>

5522. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 15:57:09 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <auhthmlbr1@slb5.atl.mindspring.net>
Source record: 128360

Roy:

[snip]
> > Yes there is... "more wire in the air!"
> >
> > The more the better.
:
> > Peter K1PO
> > Indialantic By-the-Sea, FL
>
> Not so. A 10 wavelength dipole fed with 100 watts doesn't couple even a
> milliwatt more power into the air than a half wavelength dipole does.
:
> Roy Lewallen, W7EL
[snip]

Depends if you are interested in coupling to the "air" or to the "Aether".

Season's greetings,

--
Peter K1PO
Indialantic By-the-Sea, FL

5523. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 16:23:10 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3e0c7e72$0$90234$ba620e4c@news.skynet.be>
Source record: 128361

On this side of the pound we never hear about yards. Could be about 1.1 meter, isn't ? We have been passing completely to metric about two centuries ago, excepted UK. It seems British people still use their original system (but are they also going metric ?), left hand driving, even Sweden also passed to right hand driving 25 years ago. Nevertheless I have used feet, nautical miles and knots in flying. The worst for me is the conversion on the spot of Farenheit temperature. Long live to Kelvin scale !

I missed the point because the center of our 80m band is not 3.75 MHz. Sorry for slow understanding.

73 de ON5MJ - Jacques.

5524. 2m Halo

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 16:40:36 UTC
From: Richard <happyraveruk@yahoo.com>
Message-ID: <auhvq1$7a6j0$1@ID-155271.news.dfncis.de>
Source record: 128362

Anyone know where I might find info on constructing a 2m halo loop ?
Or any other easy to build horizontal antenna for 2 for that matter !

5525. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 16:49:00 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aui09rrmk1@helle.btinternet.com>
Source record: 128363

CAM wrote -
> I discovered a lot of other things also, Reg. The feedpoint impedances are
> more reasonable when the dipole is 1/2WL on the lowest frequency of
operation.
> The resulting feedpoint impedances tend to describe a spiral on a Smith
Chart
> throughout the entire HF range of frequencies. Most of those impedances
lie
> within the doughnut described below.
>
> > Change amateur band frequencies and you have to change line impedance at
the
> > same time keeping your fingers crossed.
>
> Of course, some planning is in order. One can use EZNEC to estimate
whether
> it will work or not. Set the SZ option to whatever Z0 you intend to use
and
> run EZNEC on that dipole for all bands of interest. If the SWR is between
> 3:1 and 12:1 for 300 ohm twinlead, between 4.5:1 and 18:1 for 450 ohm
ladder-
> line, and between 6:1 and 24:1 for 600 ohm open-wire line, you can match
it
> to a 50 ohm SWR of less than 2:1 by varying the length of the feedline.
And
> of course, one needs a guard band to account for variations.
>
> Here's another way. Write down the feedpoint impedances provided by EZNEC
> for all the bands of interest. Take a Smith Chart and draw two circles,
> one through 25+j0 ohms and the other through 100+j0 ohms. That will give
> you a doughnut on the Smith Chart. Plot your antenna feedpoint impedances
> on that chart. If the antenna impedance is inside the doughnut, then the
> antenna can be matched to a 50 ohm SWR of 2:1 or less by varying the
length
> of the feedline.
>
> There are an infinite number of antenna impedances inside that doughnut,
Reg.
> Why would you not be satisfied with matching an infinite number of
feedpoint
> impedances without a tuner? Why would you ever need to match more than an
> infinite number of feedpoint impedances? :-)
> --
==========

Infinite number of feedpoint impedances? The trouble with your system is that you don't match ANY of them!

Planning using EZNEC and Smith Charts takes a month of Sundays. The sunspot cycle won't wait for ever. ;o)

Use program DIPOLE3 and you can do the job as fast as you can write down the list of resonant frequencies and associated dBs. Line loss and overall efficiency also come out in the wash.

I did some investigating many months back. So far as I can remember I found 300-ohm gave most useful dB results but, as might be expected, efficiency was not too hot. 600-ohm did not provide a sufficient number of suitable within-band selections.

But I prefer to use SWR=1.5 as the highest acceptable SWR.

I would not accept SWR's as high as 2. Although a manufacturer may honestly say his transmitter will not blow up with an SWR of 2-to-1, power output begins to fall off almost as soon as the SWR meter needle shifts off the stop. It's the reactive component of the transmitter load which is the main culprit.

(Incidentally, G5RV resonance occurs in only one band unless you juggle with line impedance - as might be expected it's 20m).

Never be without program DIPOLE3. Obtain it without delay from website below -
---
==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

5526. Re: 2m Halo Homebrew Projects

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 17:01:18 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <yH%O9.169011$6k.3622232@news1.west.cox.net>
Source record: 128364

See URL:
http://members.aol.com/n2kbk/2mhalo.html

http://hamgate1.sunyerie.edu/races/antenna/2m_halo.gif

http://home.attbi.com/~buck0/2m_halo.htm

AND
http://ac6v.com/antprojects.htm#2M

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
"Richard" <happyraveruk@yahoo.com> wrote in message
news:auhvq1$7a6j0$1@ID-155271.news.dfncis.de...
> Anyone know where I might find info on constructing a 2m halo loop ?
> Or any other easy to build horizontal antenna for 2 for that matter !
>
>

5527. Re: CQ! Do You Recognise This HF Amateur Mobile Antenna by description? Help Requested!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 17:35:04 UTC
From: Dick <rhughes33@cableone.net>
Message-ID: <ba3p0volof8lu7mb2639jnqq7aipq2btg7@4ax.com>
Source record: 128365

On 27 Dec 2002 06:40:48 -0800, wilf_san2@yahoo.co.uk (wilf_san2)
wrote:

>CQ! Please can you help me? Do you recognise this HF amateur mobile
>antenna by it's description?
It could be one of the Swan 742 antennas which later became the B&W
370-19. These antennas operated on 75, 40 and 20-meters. They are
described as looking like a Midas muffler. I also seem to remember an
antenna coil that was tear-drop shaped (like an airfoil) that covered
10, 15, and 20-meters. May also have been in an ARRL handbook many
years ago.

Dick - W6CCD

>
>Wilf, Scotland

5528. Re: 2m Halo

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 17:50:34 UTC
From: Sparks W4EAS <sparksw4eas@mindspring.com>
Message-ID: <3E0C92EA.5303@mindspring.com>
Source record: 128366

ARRL Handbook 73 Sparks W4EAS

5529. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 18:27:25 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0C9B8D.5070900@ieee.org>
Source record: 128367

Reg Edwards wrote:
> But I prefer to use SWR=1.5 as the highest acceptable SWR.

SWR = 2:1 is my absolute outside limit and I never get there.
Without a tuner, the highest SWR on my present dipole is 1.6:1.

> I would not accept SWR's as high as 2. Although a manufacturer may honestly
> say his transmitter will not blow up with an SWR of 2-to-1, power output
> begins to fall off almost as soon as the SWR meter needle shifts off the
> stop. It's the reactive component of the transmitter load which is the main
> culprit.

My IC-706 starts folding back at 15W reflected. When it is putting out 100W,
that's an SWR of about 2.3:1

> (Incidentally, G5RV resonance occurs in only one band unless you juggle with
> line impedance - as might be expected it's 20m).

I have seen a G5RV resonant on 80m, 40m, and 20m. Of course, the resonant
frequency on 80m was 3.6 MHz.

> Never be without program DIPOLE3.

If EZNEC and MicroSmith were not second nature to me already, I sure wouldn't.
--
cheers, CAM http://www.qsl.net/w5dxp

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5530. Re: 2m Halo

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 19:05:05 UTC
From: Allodoxaphobia <nobody@jonz.net>
Message-ID: <slrnb0p92v.20b.nobody@animas.frontier.net>
Source record: 128368

On Fri, 27 Dec 2002 12:50:34 -0500, Sparks W4EAS hath writ:

> ARRL Handbook 73 Sparks W4EAS

And the Dec, 2002 issue of QST.

See also the 6M halo homebrew projects (for ideas and techniques)
in the Jan, 2002 issue of QST
and: http://jonz.net/W3DHJ/6mhalo.html

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

5531. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 19:40:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <v0pb5or87g12c9@corp.supernews.com>
Source record: 128269

Huh?

Roy Lewallen, W7EL

Peter O. Brackett wrote:
> Roy:
>
> [snip]
>
>>>Yes there is... "more wire in the air!"
>>>
>>>The more the better.
>>
> :
>
>>>Peter K1PO
>>>Indialantic By-the-Sea, FL
>>
>>Not so. A 10 wavelength dipole fed with 100 watts doesn't couple even a
>>milliwatt more power into the air than a half wavelength dipole does.
>
> :
>
>>Roy Lewallen, W7EL
>
> [snip]
>
> Depends if you are interested in coupling to the "air" or to the "Aether".
>
> Season's greetings,
>
> --
> Peter K1PO
> Indialantic By-the-Sea, FL
>
>

5532. Looking for Bassett 75 meter coils

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 20:00:00 UTC
From: thompson@mindspring.com
Message-ID: <auibia$10m$1@slb5.atl.mindspring.net>
Source record: 128270

I am Looking for Rex Bassett 75 meter mobile coils. These were sold by
Bassett and then by Savoy
Electronics in Florida (1955 to 1975 or so). They are vacuum sealed and
filled with helium. I am looking for 1 or more.

Please price and condition in an e-mail direct to me.

Thanks

Dave K4JRB
thompson@mindspring.com

5533. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 20:21:50 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <auicorjtk1@slb6.atl.mindspring.net>
Source record: 128272

Roy:

"Air", Aether", whatever! Heh, heh...

That was all "writ ironic" as Mark Twain once stated!

Sorry, I thought this whole thread was a Christmas jest or some oter such
fun and games...

Was/is anyone serious about this?

Just to be clear... The 377 Ohm "impedance" of free space has nothing
whatsoever to do with the
impedance of circuits and power transfer, etc...! Only the words are the
same, the meanings and
context are completely different.

I thought everyone [at least posters on this NG] knew that!

What?
--
Peter K1PO
Indialantic By-the-Sea, FL

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:v0pb5or87g12c9@corp.supernews.com...
> Huh?
>
> Roy Lewallen, W7EL
>
> Peter O. Brackett wrote:
> > Roy:
> >
> > [snip]
> >
> >>>Yes there is... "more wire in the air!"
> >>>
> >>>The more the better.
> >>
> > :
> >
> >>>Peter K1PO
> >>>Indialantic By-the-Sea, FL
> >>
> >>Not so. A 10 wavelength dipole fed with 100 watts doesn't couple even a
> >>milliwatt more power into the air than a half wavelength dipole does.
> >

> > :
> >
> >>Roy Lewallen, W7EL
> >
> > [snip]
> >
> > Depends if you are interested in coupling to the "air" or to the
"Aether".
> >
> > Season's greetings,
> >
> > --
> > Peter K1PO
> > Indialantic By-the-Sea, FL
> >
> >
>

5534. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 20:54:17 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0CBDF9.6090203@ieee.org>
Source record: 128273

Bob Cameron wrote:
> The next part is (hopefully) going to maybe you think. Lets forget about
> the antenna being used for transmitting and concentrate on receiving. One
> of the "gurus" in my local 2M ragchewing group maintains that for receive a
> resonant antenna makes a huge difference. His answer to my doubts were "go
> and try it".
>
> I'd like to get your feedback on his statement...

My 130 ft dipole receives just fine on all HF bands. I don't even know
exactly the frequency on which it is resonant. Perhaps your friend is
getting "matched" and "resonant" confused.

Most of our receivers have enough automatic gain to compensate for
any loss of signal in the antenna system because usually noise is
reduced by approximately the same amount as the signal is reduced.
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

5535. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 21:22:25 UTC
From: Bob Cameron <bob.cameron.remove@optusnet.com.au>
Message-ID: <iagiua.8qb.ln@p400bob.lse.com.au>
Source record: 128274

OC_CAM's Razor wrote:

> My 130 ft dipole receives just fine on all HF bands. I don't even know
> exactly the frequency on which it is resonant. Perhaps your friend is
> getting "matched" and "resonant" confused.
>
> Most of our receivers have enough automatic gain to compensate for
> any loss of signal in the antenna system because usually noise is
> reduced by approximately the same amount as the signal is reduced.

But you just said HF, where atmospheric noise will always be the problem in resolving a low strength signal. What about in a VHF/UHF environment where front end noise is more of a problem? Every erg of signal getting to the radio front end will be important.

The cruncher with the main question is why do we bother even analysing antenna reactance? We can do all of our tuning with just an SWR meter?

Bob

5536. Re: Satellite Dish for Ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 21:36:55 UTC
From: "James L. Hudson" <jlhudson@ev1.net>
Message-ID: <3E0CC7F7.FA443C4F@ev1.net>
Source record: 128275

Hi,

Here are some sites to visit that will give you some pointers:

http://www.qsl.net/n1bwt/contents.htm
http://www.ultimatecharger.com/Dish_Feed.html

or:

http://www.wwc.edu/~frohro/Airport/Primestar/Primestar.html
http://www.turnpoint.net/wireless/cantennahowto.html

73,

Jim Hudson WA5JAT

5537. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 21:56:15 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <v0pj3v86lk652e@corp.supernews.com>
Source record: 128276

ARRRRRRRG! The biggest disservice to amateur radio is the SWR meter. A dummy load has a good SWR, Does it get out very well? SWR only shows that you have a good match to a system, not if it (the system) is or is not efficient. Without a tuner to make my transmitter happy, my antenna has neither a low SWR or resonance on any frequency I operate.

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"Bob Cameron" <bob.cameron.remove@optusnet.com.au> wrote in message news:iagiua.8qb.ln@p400bob.lse.com.au...
>
> The cruncher with the main question is why do we bother even analysing
> antenna reactance? We can do all of our tuning with just an SWR meter?
>
> Bob

5538. Dipole balun test findings

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 22:53:56 UTC
From: Stagger <stagger3@yahoo.com>
Message-ID: <7NudnTXsxJHbRJGjXTWc2Q@comcast.com>
Source record: 128277

Hi, I know you guys probably seen a ton of these questions, but I was doing a little test. This is what I found....

If you were constructing a dipole without a balun, you would connect the center conductor to the top pole, and the shielding braid to the lower pole.

I checked my balun with a continuality meter to see what side matches up with the center pin. I found continuality on both output leads from the center pin. Same as for the threaded shield side.

I though the way a dipole worked was by having opposite and separate polarities? If I used a balun, it would seem both the center conductor and the shield would be going to the top pole. And the same for the bottom pole.

Can anybody shed some light on this finding?

Thanks in Advance
Stagger

5539. Re: Dipole balun test findings

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 23:05:45 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0CDCC9.1060308@ieee.org>
Source record: 128278

Stagger wrote:
> Can anybody shed some light on this finding?

It's probably a voltage balun and if you check the schematic in your ARRL
Handbook, you will see essentially a DC short between all contacts.
--
cheers, CAM http://www.qsl.net/w5dxp

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5540. Re: Satellite Dish for Ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 23:18:19 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3E0CDC5B.AE8EEEB2@verizon.net>
Source record: 128279

Roger Halstead wrote:

> On Fri, 27 Dec 2002 04:39:14 -0600, "william brooks" <kv4dt@nri55.com>
> wrote:
>
> >Hello,
> >
> >Has anyone tried converting the old Ku-band Satellite Dish Antenna for ham
> >radio application. If so, can you send me some information, i.e. what freq
> >can be converted for, how much trouble, construction plans, etc.
>
> I'm planning on using an 11 foot C-band dish, which also works on KU
> band for 2.3 Gig
> The vast majority of C-band dishes will also work on Ku, with the
> exception of the mesh dishes that have the *large* openings, or holes.
> While it is true that many of the C band dishes will work OK for receiving Ku
> TVRO transmissions, many if not most (unless spun, hydroformed or perforated)
> have intolerably high side lobes for EME use. One we looked at had a split
> main lobe- Winegard 4 piece mesh!

> You'd probably want to use an As/El mount instead of the polar mount
> if considering EME. For EME you'd probably want a dish on the order
> of 12 feet or larger.

For 14' and smaller polar mount offers distinct advantages over AZ/EL- including simplicity, cost and, within reason, pointing accuracy. The VK3UM tracking software supports polar tracking- in particular the configurtion I presented at 2001 SEVHF Conference. That paper is available in their compendium, or I can send it as a Word document- about 2 meg as I recall.

Dale W4OP

5541. Re: Dipole balun test findings

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 23:20:14 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3E0CDCD0.2A3C96A6@verizon.net>
Source record: 128280

Stagger wrote:

> Hi, I know you guys probably seen a ton of these questions, but I was
> doing a little test. This is what I found....
>
> If you were constructing a dipole without a balun, you would connect
> the center conductor to the top pole, and the shielding braid to the
> lower pole.
>
> I checked my balun with a continuality meter to see what side matches
> up with the center pin. I found continuality on both output leads from
> the center pin. Same as for the threaded shield side.
>
> I though the way a dipole worked was by having opposite and separate
> polarities? If I used a balun, it would seem both the center conductor and
> the shield would be going to the top pole. And the same for the bottom
> pole.
>
> Can anybody shed some light on this finding?
>
> Thanks in Advance
> Stagger

Don't confuse DC continuity with the way RF "sees" the balun.

And, if balanced, it will not matter if you connect the center conductor to the top or bottom radiator.

Dale W4OP

5542. Re: Dipole balun test findings

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-27 23:38:11 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E0CE422.6000709@attbi.com>
Source record: 128281

That's just what you should find!!

In simple terms a balun has two windings connected together at the
center tap {coax}. The end of one winding connects to the center of the
coax. Transformer action then induces an opposite polarity in the other end.

It's a simple statement. Design and construction techniques have to
ensure close coupling of the inductive path and minimal capacitive action.

Deacon Dave, W1MCE

Stagger wrote:
> Hi, I know you guys probably seen a ton of these questions, but I was
> doing a little test. This is what I found....
>
> If you were constructing a dipole without a balun, you would connect
> the center conductor to the top pole, and the shielding braid to the
> lower pole.
>
> I checked my balun with a continuality meter to see what side matches
> up with the center pin. I found continuality on both output leads from
> the center pin. Same as for the threaded shield side.
>
> I though the way a dipole worked was by having opposite and separate
> polarities? If I used a balun, it would seem both the center conductor and
> the shield would be going to the top pole. And the same for the bottom
> pole.
>
> Can anybody shed some light on this finding?
>
>
> Thanks in Advance
> Stagger
>
>
>
>

5543. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 00:12:51 UTC
From: jgboyles@aol.com
Message-ID: <20021227191251.14161.00000262@mb-ca.aol.com>
Source record: 128282

>The cruncher with the main question is why do we bother even analysing
>antenna reactance? We can do all of our tuning with just an SWR meter?

Yes and no. When I was a Novice 35 years ago I did all of my tuning with a #47 lamp tapped along my xmission line and tuned for max brillance. Didn't need an swr bridge nor did I own one. I couldn't figure how to hook the 50 ohm swr bridge into the 300 ohm twin lead I was using.
These days, I dabble in antenna design, especially physically short, loaded and mobile antennas. Knowing the R+/-jX of the antenna feedpoint is quite important to me. Could I get the antennas going with just an swr bridge, yes, but I would not like to try. An antenna analyzer and a Smith Chart make matching experimental antennas a snap.
If you know your antenna "system" is close to a 50 ohm match to your xcvr, then a 50 ohm swr meter should be all you need for tuning. With VHF/UHF antennas, these are usually full size designs commercial, or out of a book or formula. A 50 ohm swr bridge might be all you need.
The 50 ohm swr bridge has limited use, as defined by whom is using it.

73 Gary N4AST

5544. Re: CQ! Do You Recognise This HF Amateur Mobile Antenna by description? Help Requested!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 00:28:47 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3e0cf52e_4@news1.prserv.net>
Source record: 128283

Wilf:
I can assure you that is not the description of any of the models which Newtronics made under the Hustler name. I no longer recall the details of the Swan antenna, but I do recall that it was a complex monster. The plate for the stays strikes a familiar cord. About 1960. Probably designed for 200 watts AM, so it should handle the legal limit on SSB in the UK. If your principal interest is recovering the information on the length of the top whip, it was likely about 50", as that seemed to be the norm back then. Only the individually constructed "bug-catcher" installations exceeded 8 feet in overall length for practical and safety reasons. If you have the bottom portion of the antenna, bolt it on your vehicle, get an 8' "CB" whip with removable base, screw it into the top of the coil and start cutting and measuring.

--
Crazy George
Remove NO and SPAM from return address
"wilf_san2" <wilf_san2@yahoo.co.uk> wrote in message
news:4bd1bd4f.0212270640.5b2e0f5e@posting.google.com...
> CQ! Please can you help me? Do you recognise this HF amateur mobile
> antenna by it's description?
>
> It has a huge chromed sprung base, slightly cone-shaped, on top of a
> round black circular insulator, fitted on to a chromed mounting plate,
> with J-bolts (for bumper mounting?). It has an SO-239 socket below.
>
> The sprung base is then topped by a chrome solid section about
> three-quarters of an inch in diameter, and about 3ft in height, which
> ends in a grooved collet constraining a chrome knuckle-fold hinge
> joint (in effect, giving the option to drop the whole antenna to
> half-height, I assume, to allow a vehicle to drive without spiking
> birds). This section reminds me of a mike stand, and it has a small
> captive plate drilled-out at this knuckle-fold to allow two support
> tielines to go back on to the vehcle body.
>
> This big pole section is then followed by a *huge* grey plastics
> bi-cone centre trap, 3/8ths threaded top+bottom, with three variable
> capacitor and coil sections, each of which is adjustable from outside,
> and marked beside each access hole I, II and III. There is a central
> perspex inspection ring, to see these beefy components.
>
> The very top of the antenna is clearly meant to be a whip (which is
> missing), so the overall effect is a centre-trap multiband collapsable

> HF/low VHF mobile antenna. Very good build quality, but not anywhere
> near milspec Shakespeare etc
>
> My questions are: what make/model/vintage is it? What band(s)? How
> long should the missing whip be? What maximum power? And is it as good
> as it looks? This antenna is a very rare sight over here in the UK, so
> I would appreciate any help anyone anywhere can offer.
>
> Wilf, Scotland

5545. Re: Out in left field?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 00:31:54 UTC
From: "G. Beat" <gregory.beat.nospam@spam.attbi.com>
Message-ID: <_h6P9.534272$NH2.35570@sccrnsc01>
Source record: 128284

Start here !!

http://www.ultimatecharger.com/dish.html

Direct your question to Robert, W0LMD (who presented at the Central States VHF Conference this past summer)

Robert W0LMD - SAI - 27107 Richmond Hill Rd. Conifer, Colorado 80433

(303) 838-6346 roberts@qadas.com)

"Scooter Cat" <fatoldcat@webtv.net> wrote in message news:17571-3E0B08F3-931@storefull-2312.public.lawson.webtv.net...
> I have an 11' Interstat dish I wish to use as a "dual reflect" antenna
> for tv. {C&Ku band] What size subreflector wood be called for,this dish
> is about 24" deep. This is a toy and I will probably try this even if
> its not a good idea. Ideas ? information? Help
>

5546. Re: FT-920 AND SB-220 ?!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 00:34:45 UTC
From: "G. Beat" <gregory.beat.nospam@spam.attbi.com>
Message-ID: <Fk6P9.138078$qF3.10448@sccrnsc04>
Source record: 128285

Sam,

Since the TS-920 is a modern rig, you should check out this web site for "updating" you SB-220

http://www.harbachelectronics.com/

http://www.vcnet.com/measures/sb-220.html

Greg
W9GB

"news.verizon.net" <sam.krusnsberg@verizon.net> wrote in message news:f12O9.102776$4W1.75768@nwrddc02.gnilink.net...
> How should the 920 and 220 be connected together ? should I use an extermal
> antenna tuner between the 920 and 220 and not use the internal auto tuner in
> the 920 ? also what type of coax and length between the two ? Thanks, Sam
> KG4HEB, callingdx@yahoo.com
>
>

5547. Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 01:25:24 UTC
From: Martin <Martin@_NOSPAM_g1gyc.demon.co.uk>
Message-ID: <auiv4t$f10$1$8300dec7@news.demon.co.uk>
Source record: 128286
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

Hi, and thank you for reading this.
I am in stalling my radio station in to the small "box room" on the 2nd floor
of the building and I have in the past not worried about a separate earth for
the station. But as this station is going to be a more permanent arrangement
than my other previous locations I want to make sure that :-
1) the station is safe electrically. (of course the supply earth will be
connected)
2) protected form static (lightening etc).
3) has a good RF performance. (this means low resistance earth connection)
4) is as clear of EMC problems as possible.

So any one got some pointers or helpful hints on installing a separate station
earth. The ground connection is easy 3 to 6 off 6' long 1" dia copper pipes
driven all the way in to the soil (I know it is a big is job but not
impossible).
The bit I am puzzling over is do I use a heavy copper strap as used on church
lightening conductors to provide a common earth for every thing or just for the
static protection and then a separate heavy conductor to provide the shack
equipment earth.
In either case how can I ensure that the earthing does not radiate RF (I assume
that making sure the aerials are correctly balanced with suitable baluns fitted is
the answer here.)
I did here about using RG8 type coax and connecting both inner and screen
to the hardware in the ground but only connecting the shack earth buss to the
inner - any thoughts on this.

Cheers Martin

5548. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 01:42:11 UTC
From: Martin <Martin@_NOSPAM_g1gyc.demon.co.uk>
Message-ID: <auivhofdh1$8300dec7@news.demon.co.uk>
Source record: 128287
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

"Martin" <Martin@_NOSPAM_g1gyc.demon.co.uk> wrote in message
------><------- snipped

Oops I forgot to add :-
REMOVE _NOSPAM_ to send email back to me or reply to the group.

Thanks Martin

5549. Re: Antenna Q and space coupling efficiency?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 02:11:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <v0q22v14m79b3c@corp.supernews.com>
Source record: 128288

Peter,

Thanks for the clarification. Whew. For a minute there I thought you, Cecil, and Yuri were serious. Now I understand -- it's kind of a Christmas Fools' Day. Joke's on me.

Roy Lewallen, W7EL

Peter O. Brackett wrote:
> Roy:
>
> "Air", Aether", whatever! Heh, heh...
>
> That was all "writ ironic" as Mark Twain once stated!
>
> Sorry, I thought this whole thread was a Christmas jest or some oter such
> fun and games...
>
> Was/is anyone serious about this?
>
> Just to be clear... The 377 Ohm "impedance" of free space has nothing
> whatsoever to do with the
> *impedance* of circuits and power transfer, etc...! Only the words are the
> same, the meanings and
> context are completely different.
>
> I thought everyone [at least posters on this NG] knew that!
>
> What?
> --
> Peter K1PO
> Indialantic By-the-Sea, FL
>
>
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:v0pb5or87g12c9@corp.supernews.com...
>
>>Huh?
>>
>>Roy Lewallen, W7EL
>>
>>Peter O. Brackett wrote:
>>
>>>Roy:
>>>

>>>[snip]
>>>
>>>
>>>>>Yes there is... "more wire in the air!"
>>>>>
>>>>>The more the better.
>>>>
>>>:
>>>
>>>
>>>>>Peter K1PO
>>>>>Indialantic By-the-Sea, FL
>>>>
>>>>Not so. A 10 wavelength dipole fed with 100 watts doesn't couple even a
>>>>milliwatt more power into the air than a half wavelength dipole does.
>>>
>>>:
>>>
>>>
>>>>Roy Lewallen, W7EL
>>>
>>>[snip]
>>>
>>>Depends if you are interested in coupling to the "air" or to the
>>
> "Aether".
>
>>>Season's greetings,
>>>
>>>--
>>>Peter K1PO
>>>Indialantic By-the-Sea, FL
>>>
>>>
>>
>
>

5550. Re: 2m Halo

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 02:38:31 UTC
From: Jimnn7k@reno.rmci.net
Message-ID: <j18P9.24232$BP.23374@fe01>
Source record: 128289

Try this: K0FF design (not circular, but SQUARE) and also has 6 meter
version.
both posted on web. 2 meter version at:
http://www.hamuniverse.com/loop.html

6 meter version at: http://www.qsl.net/k4pwo/sloop.htm

Both made of copper tubeing, and solder together!

Hope this helps, jim NN7K

"Richard" <happyraveruk@yahoo.com> wrote in message
news:auhvq1$7a6j0$1@ID-155271.news.dfncis.de...
> Anyone know where I might find info on constructing a 2m halo loop ?
> Or any other easy to build horizontal antenna for 2 for that matter !
>
>

5551. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 02:54:26 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0212271854.39fea8d@posting.google.com>
Source record: 128290

Bob Cameron <bob.cameron.remove@optusnet.com.au> wrote in message
news:<ds6hua.po9.ln@p400bob.lse.com.au>...
> > Hi All
> >
> > Silly question time.
>
> Okay thank you all for your input on this.
>
> In hindsight I should have been a bit more specific with the question.
>
> The next part is (hopefully) going to maybe you think. Lets forget about
> the antenna being used for transmitting and concentrate on receiving. One
> of the "gurus" in my local 2M ragchewing group maintains that for receive a
> resonant antenna makes a huge difference. His answer to my doubts were "go
> and try it".
>
> I'd like to get your feedback on his statement...
>
> Cheers Bob VK2YQA

I would say a resonant "system" , not a resonant antenna . Even then,
all you are doing is pumping up the S meter, unless the level drops so
low that internal noise masks the desired signal. "VHF". Otherwise the
s/n ratio stays much the same. But for VHF, it gets more complicated
as you have to consider decoupling of the antenna to the feedline.
This will have a larger effect on performance than simply having a
better match from the line to the antenna. Many antennas are not
resonant in themselves, but still have gain over a 1/4 GP, or a
dipole.
Look at the feedpoint of a 15 el yagi. It's not a good match to coax
until you add a matching device. A 5/8 GP is not resonant until you
add a loading coil to tune to a 3/4 wave resonance. But a 5/8 radiator
will still have the same pattern matched or not. So unless signal
level is an issue, matching with the loading coil is not required for
just receiving use. The problem is on VHF, signal level vs internal
noise is often a problem. If you have a high SWR, feedline losses that
coax will usually have in the VHF range, will eat you for lunch. But
on HF, this is much less likely to be a problem just for receiving.
The antenna does not need to be resonant on VHF to perform well. All
you need is efficient matching from the antenna to the line being
used, and good decoupling. So in a sense, the antenna is resonant as
far as the load at the end of the feedline, but only due to the use of
a matching device. A multi wave long rhombic is not resonant. Have
him compare one of those to a "resonant dipole", or GP on VHF and see

which wins.

MK

5552. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 02:58:37 UTC
From: Jimnn7k@reno.rmci.net
Message-ID: <9k8P9.24354$BP.10197@fe01>
Source record: 128291

There are yards, and then there are YARDS! The distance -Yard, is slightly less than a METER (also equals 3 Feet). But think Hagen's comment was about YOUR YARD, as in, how big is your piece of PROPERTY, that your house sets on??! jim nn7k

"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message news:3e0c7e72$0$90234$ba620e4c@news.skynet.be...
> On this side of the pound we never hear about yards. Could be about 1.1
> meter, isn't ? We have been passing completely to metric about two centuries
> ago, excepted UK. It seems British people still use their original system
> (but are they also going metric ?), left hand driving, even Sweden also
> passed to right hand driving 25 years ago. Nevertheless I have used feet,
> nautical miles and knots in flying. The worst for me is the conversion on
> the spot of Farenheit temperature. Long live to Kelvin scale !
>
> I missed the point because the center of our 80m band is not 3.75 MHz. Sorry
> for slow understanding.
>
> 73 de ON5MJ - Jacques.
>
>

5553. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 03:18:40 UTC
From: Jimnn7k@reno.rmci.net
Message-ID: <ZC8P9.24492$BP.459@fe01>
Source record: 128292

Bob, tis not that simple, as for best reception (as in "Noise Figure, or Factor), of a reciever at vhf, the front end is Intentionally MIS-TUNED for the BEST SIGNAL/NOISE ratio! assuming a 50 ohm antenna, and coax, rarely will the R.F. stage of the reciever will have a 50 ohm impedence! Has to do with the noise generated in the r.f.amp dropping faster (or more), than the signal does, and allows reception at smaller signal levels. For the reasoning, need to consult with weak signal engineers like N6CA, or others that design low noise preamps-- jim nn7k

"VK2YQA wrote:
> > Hi All
> >
> > Silly question time.
>
> Okay thank you all for your input on this.
>
> In hindsight I should have been a bit more specific with the question.
>
> The next part is (hopefully) going to maybe you think. Lets forget about
> the antenna being used for transmitting and concentrate on receiving. One
> of the "gurus" in my local 2M ragchewing group maintains that for receive
a
> resonant antenna makes a huge difference. His answer to my doubts were "go
> and try it".
>
> I'd like to get your feedback on his statement...
>
> Cheers Bob VK2YQA

5554. Balun for helical antenna at 2.4 GHz ---- help!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 04:53:37 UTC
From: Tasos Zafeiropoulos <abc@panafonet.gr>
Message-ID: <aujapchcf1@nic.grnet.gr>
Source record: 128293

I want to make a balun for my helical antenna at 2.4 GHz...

Can anyone help me out? Is it a good idea to use a L/4 coaxial cable to match the impedance?

If yes, how can I can fit it in the antenna?

Any suggestions woul b appreciated..

Greetings
Jim, duth.gr

5555. Re: CQ! Do You Recognise This HF Amateur Mobile Antenna by description? Help Requested!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 05:15:17 UTC
From: fmmck@aol.com
Message-ID: <20021228001517.21157.00000235@mb-fm.aol.com>
Source record: 128294

<< This big pole section is then followed by a *huge* grey plastics bi-cone centre trap, 3/8ths threaded top+bottom, with three variable capacitor and coil sections, each of which is adjustable from outside, >>

Wilf-

I recall seeing advertisements for a mobile antenna that might fit your description, in QST back in the 1950s. I think the antenna was made by the E. F. Johnson Company, maker of the Viking series of Ham rigs. Could your antenna be that old?

If it was possible to cover all bands with just those tuning components, the length of the top whip couldn't be critical. If you have something that fits, try it.

73, Fred, K4DII

5556. Re: 2m Halo

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 05:28:13 UTC
From: KB9TMP <kb9tmp@juno.com>
Message-ID: <v0qdjbe3bm5a48@corp.supernews.com>
Source record: 128295

"Richard" <happyraveruk@yahoo.com> wrote in message
news:auhvq1$7a6j0$1@ID-155271.news.dfncis.de...
> Anyone know where I might find info on constructing a 2m halo loop ?
> Or any other easy to build horizontal antenna for 2 for that matter !
>
>

There is a real nice how-to on Eham.net right now about that.
The story is called "6 & 2 Meter Square Copper Dipoles" and
can be found at http://www.eham.net/articles/4319 I found it
very interesting and helpful, also has some great photos of the
work in progress.

--

'73' & Happy New Year From KB9TMP

5557. Re: 2m Halo

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 06:08:52 UTC
From: Howard <mensch90249@yahoo.com>
Message-ID: <lsfq0v4f45eeffgulmr8hc6dc97e4fimgl@4ax.com>
Source record: 128296

On 27 Dec 2002 19:05:05 GMT, Allodoxaphobia <nobody@jonz.net> wrote:

>On Fri, 27 Dec 2002 12:50:34 -0500, Sparks W4EAS hath writ:
>
>> ARRL Handbook 73 Sparks W4EAS
>
>And the Dec, 2002 issue of QST.
>
>See also the 6M halo homebrew projects (for ideas and techniques)
>in the Jan, 2002 issue of QST
> and: http://jonz.net/W3DHJ/6mhalo.html
>
>73
>Jonesy

Another possibility is a Moxon rectangle.

http://www.cebik.com/moxbld.html

Good luck & 73,
Howard

5558. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 08:14:48 UTC
From: Steve <no-one@home.here>
Message-ID: <n%cP9.128$TU5.12669@newsfep2-gui>
Source record: 128297
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

Martin <Martin@_NOSPAM_g1gyc.demon.co.uk> wrote in message
news:auiv4t$f10$1$8300dec7@news.demon.co.uk...
> Hi, and thank you for reading this.
> I am in stalling my radio station in to the small "box room" on the 2nd
> floor
> of the building and I have in the past not worried about a separate earth
> for
> the station. But as this station is going to be a more permanent
arrangement
> than my other previous locations I want to make sure that :-
> 1) the station is safe electrically. (of course the supply earth will be
> connected)
It's likely that your house wiring is on a system called PME, in which case it's vital that your external earth is connected to the house wiring earth at the meter panel. I'm sure there will be IEE wiring regs on how this should be done. You might also try to get your hands on an article called 'The Killing Fields' by Peter Chadwick, G3RZP. It was in RadCom a good many years ago.

Steve

5559. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 08:21:33 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <aujmro$7cdq4$1@ID-140397.news.dfncis.de>
Source record: 128298
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

"Martin" <Martin@_NOSPAM_g1gyc.demon.co.uk> wrote in message
news:auiv4t$f10$1$8300dec7@news.demon.co.uk...
> Hi, and thank you for reading this.
> I am in stalling my radio station in to the small "box room" on the 2nd
> floor
> of the building and I have in the past not worried about a separate earth
> for
> the station. But as this station is going to be a more permanent
arrangement
> than my other previous locations I want to make sure that :-
> 1) the station is safe electrically. (of course the supply earth will be
> connected)

If you have a PME system you also need to ensure the earth bonding point where the supply enters your house is bonded by 10mm2 wire to your local earth rod(s). This is especially important if your power comes via overhead cables. You can usually get to the bonding point next to the power company fuses.

If not, under certain fault conditions a LOT of currrent can try to pass via your shack to earth. Not good.

> 2) protected form static (lightening etc).

Static isn't too difficult- use DC grounded antennas on VHF/UHF and provided a 'bleed path' via a choke or even a resistor for HF antennas.

You can get devices to protect against lightning but having seen the effects of lightning tests I don't think I would trust a cheap one. I always disconnect.

> 3) has a good RF performance. (this means low resistance earth connection)
> 4) is as clear of EMC problems as possible.

These often go hand in hand.

For VHF/UHF the problems are generally resolved by using good coax, connectors, sensible antenna siting, and filtering (as required).

For HF, given the likely problems of a earth lead impedance at HF, I recommend an external ATU- either a SGC (or similar) automatic beast or a remotely variable arrangement. The latter need not be overly complex- a simple LC arrangement, L either switched with relays or a roller coaster with a small motor (a cheap electric screwdriver is ideal) and a motorised capacitor(s). I can look out a circuit I did for someone else if you like- he want something cheap and cheerful and I think the motorisation cost him

about £10! I works very well, if I ever get around to HF myself I may build one.

To get a good RF earth you can run out radials from the ATU, the more the better. These should be bonded to an earth rod at the ATU. A buried 'earth mat' is nice but not always practical.

The above approach tends to keep the RF 'in' via the coax and equipment casing until it get to the ATU which, as the latter is remote, minimises coupling to other equipment.

Once the RF gets to the antenna it may still cause EMC problems- but that is down to the fact it is radiating, which it is meant to do ;-) Then it is down to filtering to minimise harmonics etc. and coupling into domestic items.

73

Brian
G8OSN
www.g8osn.org.uk

5560. Re: Balun for helical antenna at 2.4 GHz ---- help!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 11:44:55 UTC
From: usenet@anker.ath.cx
Message-ID: <903r0vcjuq7qluhqgg3vs2a65epitlamtb@4ax.com>
Source record: 128299

On Sat, 28 Dec 2002 06:53:37 +0200, "Tasos Zafeiropoulos" <abc@panafonet.gr>
wrote:

>I want to make a balun for my helical antenna at 2.4 GHz...
>
>Can anyone help me out? Is it a good idea to use a L/4 coaxial cable to
>match the impedance?
>
>If yes, how can I can fit it in the antenna?
>
>Any suggestions woul b appreciated..

look at http://helix.remco.tk/

for constructing a 50 ohms matching.

73, Jan on4caf

5561. HF Mobile Antenna Shootouts

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 15:12:34 UTC
From: Harvey Tetmeyer <azharvey@cox.net>
Message-ID: <CbjP9.208101$JE.43608@news1.central.cox.net>
Source record: 128300

Does anyone know about a mobile HF antenna shootout coming up in the near future?

Are results of previous shootouts posted somewhere on the net?

I haven't followed this for a while and would like to get caught up on the latest and greatest in mobile HF antenna installations.

Happy New Year and 73 all,

Harvey, K5LJM
Sun City, AZ

5562. Re: CQ! Do You Recognise This HF Amateur Mobile Antenna by description? Help Requested!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 15:15:45 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0DC021.9090802@ieee.org>
Source record: 128301

Fred McKenzie wrote:
> << This big pole section is then followed by a *huge* grey plastics
> bi-cone centre trap, 3/8ths threaded top+bottom, with three variable
> capacitor and coil sections, each of which is adjustable from outside, >>
>
> I recall seeing advertisements for a mobile antenna that might fit your
> description, in QST back in the 1950s. I think the antenna was made by the E.
> F. Johnson Company, maker of the Viking series of Ham rigs.

The loading coil/cap was called the "WHIPLOAD-6".
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

5563. Re: Balun for helical antenna at 2.4 GHz ---- help!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 15:19:07 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3E0DBD8C.190184A@verizon.net>
Source record: 128302

Tasos Zafeiropoulos wrote:

> I want to make a balun for my helical antenna at 2.4 GHz...
>
> Can anyone help me out? Is it a good idea to use a L/4 coaxial cable to
> match the impedance?
>
> If yes, how can I can fit it in the antenna?
>
> Any suggestions woul b appreciated..
>
> Greetings
> Jim, duth.gr

The most common helical- helix+ reflector, is an unbalanced antenna and
does not require a balun.

Dale W4OP

5564. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 15:33:03 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aukg7e$e7i$1@venus.btinternet.com>
Source record: 128303

How big is your (back) yard? means how big is the rear garden to your house if you have one?

Here in the UK we have been using "metres" as a measure of wavelength ever since Hertz.

And since we joined the European Common Market (Due to be renamed the USE just as soon as Blair can get himself promoted to president. At present he is taking lessons from Bush), all has gone metric except beer which is still measured in pints rather than litres because we havn't yet broken all our 1 pint glasses.

Only United States Citizens are still living in the measurements age of Ancient Brits, bodies all painted with purple woad (mud).

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

5565. Re: CQ! Do You Recognise This HF Amateur Mobile Antenna by description? Help Requested!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 15:35:45 UTC
From: Dick <rhughes33@cableone.net>
Message-ID: <c4hr0vstie4r6s6dk7cueh6c40pi2limup@4ax.com>
Source record: 128304

Amazingly, GOOGLE found a couple of places who actually sell the
manual for the WHIPLOAD-6.

Dick - W6CCD

On Sat, 28 Dec 2002 09:15:45 -0600, OC_CAM's Razor
<Cecil.A.Moore@ieee.org> wrote:

>Fred McKenzie wrote:
>> << This big pole section is then followed by a *huge* grey plastics
>> bi-cone centre trap, 3/8ths threaded top+bottom, with three variable
>> capacitor and coil sections, each of which is adjustable from outside, >>
>>
>> I recall seeing advertisements for a mobile antenna that might fit your
>> description, in QST back in the 1950s. I think the antenna was made by the E.
>> F. Johnson Company, maker of the Viking series of Ham rigs.
>
>The loading coil/cap was called the "WHIPLOAD-6".

5566. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 16:02:14 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aukhu5$ob1$1@helle.btinternet.com>
Source record: 128305

Cec sez -
> My IC-706 starts folding back at 15W reflected. When it is putting out
100W,
> that's an SWR of about 2.3:1
>
==========

Who's interested in what's reflected?

Like everybody else, you should be interested in what power is being
RADIATED when the SWR is not 1-to-1.

And that begins to fall off well before the ALC takes control.

Reg.

5567. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 16:12:40 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0DCD78.5070601@ieee.org>
Source record: 128306

Reg Edwards wrote:
> Only United States Citizens are still living in the measurements age of
> Ancient Brits, bodies all painted with purple woad (mud).

The only men to walk on the moon were probably the progeny
of those "Ancient Brits". :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5568. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 16:17:24 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0DCE94.3050809@ieee.org>
Source record: 128307

Reg Edwards wrote:
> Cec sez -
>>My IC-706 starts folding back at 15W reflected. When it is putting out 100W,
>>that's an SWR of about 2.3:1
>>
> Who's interested in what's reflected?
>
> Like everybody else, you should be interested in what power is being
> RADIATED when the SWR is not 1-to-1.
>
> And that begins to fall off well before the ALC takes control.

Is this the same Reg Edwards who sez that hams won't even miss fifteen
watts out of a 100 watt total (0.7 dB loss)? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5569. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 16:32:25 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <v0rkepmkmdfid8@corp.supernews.com>
Source record: 128308

Dear Reg:
... and some of the descendants still use woad (which is neither mud
nor purple) where we fled to be free
Mac, N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

<snip>
> Only United States Citizens are still living in the measurements age
of
> Ancient Brits, bodies all painted with purple woad (mud).
> ---

5570. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 16:38:43 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0DD393.3040209@ieee.org>
Source record: 128309

J. McLaughlin wrote:
> Dear Reg:
> ... and some of the descendants still use woad (which is neither mud
> nor purple) where we fled to be free

Woad actually comes from "Isatis tinctoria", a member of the
mustard family, and is blue.
--
cheers, CAM http://www.qsl.net/w5dxp

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5571. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 16:48:12 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <v0rlccgthp6s46@corp.supernews.com>
Source record: 128310

I agree. Long ago, I designed low noise vacuum tube amplifiers for use
in radio astronomy. (I have a big binder somewhere that contains about
all that was known about that art.) For best SNR, one does not use a
conjugate match. See volume 18 of the MIT Radiation Lab series.
(Written before transistors, but contains all that one needs even
today.) The most embarrassing moment of my life came when, in the
middle of a lecture by my mentor John Kraus, it was casually mentioned
that the front-end was to be matched to the antenna - I blurted out that
that was not so, and quickly tried to smooth things over. Right after
the lecture, I rushed to my room and wrote a short paper showing why,
then went back to the department and slipped the paper under Kraus'
door. Nothing more was ever said.
As I get older, the urge again arises to blurt things out.
Fortunately, my reflexes have also slowed down (grin).
As a practical matter, with the very low noise amplifying devices of
today, the difference is not great.
Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

<Jimnn7k@reno.rmci.net> wrote in message news:ZC8P9.24492$BP.459@fe01...
> Bob, tis not that simple, as for best reception (as in "Noise Figure,
or
> Factor), of a reciever at vhf, the front end is Intentionally
MIS-TUNED for
> the BEST SIGNAL/NOISE ratio! assuming a 50 ohm antenna, and coax,
rarely
> will the R.F. stage of the reciever will have a 50 ohm impedence! Has
to do
> with the noise generated in the r.f.amp dropping faster (or more),
than the
> signal does, and allows reception at smaller signal levels. For the
> reasoning, need to consult with weak signal engineers like N6CA, or
others
> that design low noise preamps-- jim nn7k
>
>

5572. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 16:57:55 UTC
From: Anon <paul@anon.com>
Message-ID: <aIr2kvBxadD+EwKm@btinternet.com>
Source record: 128311
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

Well is that so? Add yourself a bit of extra earthing and bond it to the PME - I think NOT!

Both Peter Chadwick and I, who've had previous discussions and agreement on this would profoundly disagree with you!

PME, where the neutral has a disconnection somewhere outside of your property has likelihood to pass huge amounts of current, and hence a rise in potential down and to any local earth you might provide or have in your home. It is a cheap but dangerous way to supposedly provide an electrical earth.

The answer is to provide yourself with some good quality ELCB's (30ma if possible) at your shack and home. Provide yourself with a good quality earthing system which is tested to current standards and when this is done disconnect the crappy PME system.

And yes I have seen the effects of a disconnected neutral with PME, which has resulted in persons receiving shocks as well as interference to electrical equipment

From someone with Experience! Who has his PME disconnected and that's the way it's staying!

In message <Aujmro$7cdq4$1@ID-140397.news.dfncis.de>, Brian Reay <brian.reay@bigfoot.com> writes
> "Martin" <Martin@_NOSPAM_g1gyc.demon.co.uk> wrote in message >news:auiv4t$f10$1$8300dec7@news.demon.co.uk...
>> Hi, and thank you for reading this.
>> I am in stalling my radio station in to the small "box room" on the 2nd >> floor
>> of the building and I have in the past not worried about a separate earth >> for
>> the station. But as this station is going to be a more permanent >arrangement
>> than my other previous locations I want to make sure that :-
>> 1) the station is safe electrically. (of course the supply earth will be >> connected)
>
>If you have a PME system you also need to ensure the earth bonding point >where the supply enters your house is bonded by 10mm2 wire to your local >earth rod(s). This is especially important if your power comes via overhead >cables. You can usually get to the bonding point next to the power company >fuses.
>

>If not, under certain fault conditions a LOT of currrent can try to pass via
>your shack to earth. Not good.
>
>
>> 2) protected form static (lightening etc).
>
>Static isn't too difficult- use DC grounded antennas on VHF/UHF and provided
>a 'bleed path' via a choke or even a resistor for HF antennas.
>
>You can get devices to protect against lightning but having seen the effects
>of lightning tests I don't think I would trust a cheap one. I always
>disconnect.
>
>> 3) has a good RF performance. (this means low resistance earth connection)
>> 4) is as clear of EMC problems as possible.
>
>
>These often go hand in hand.
>
>For VHF/UHF the problems are generally resolved by using good coax,
>connectors, sensible antenna siting, and filtering (as required).
>
>For HF, given the likely problems of a earth lead impedance at HF, I
>recommend an external ATU- either a SGC (or similar) automatic beast or a
>remotely variable arrangement. The latter need not be overly complex- a
>simple LC arrangement, L either switched with relays or a roller coaster
>with a small motor (a cheap electric screwdriver is ideal) and a motorised
>capacitor(s). I can look out a circuit I did for someone else if you like-
>he want something cheap and cheerful and I think the motorisation cost him
>about ï¿½10! I works very well, if I ever get around to HF myself I may build
>one.
>
>To get a good RF earth you can run out radials from the ATU, the more the
>better. These should be bonded to an earth rod at the ATU. A buried 'earth
>mat' is nice but not always practical.
>
>The above approach tends to keep the RF 'in' via the coax and equipment
>casing until it get to the ATU which, as the latter is remote, minimises
>coupling to other equipment.
>
>Once the RF gets to the antenna it may still cause EMC problems- but that is
>down to the fact it is radiating, which it is meant to do ;-) Then it is
>down to filtering to minimise harmonics etc. and coupling into domestic
>items.
>
>
>73
>
>Brian
>G8OSN

>www.g8osn.org.uk
>
>
>
>
>
>
>

--

5573. Re: FS: Kantronics KPC3 Plus Manual

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 17:21:20 UTC
From: Bill Aycock <baycock@hiwaay.net>
Message-ID: <3E0DDD90.4080106@hiwaay.net>
Source record: 128312
Cross-posted to: rec.radio.amateur.antenna,alt.ham-radio.vhf-uhf,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment

Benjamin-
have you checked your mail lately?
Bill

Benjamin, KB9LFZ wrote:
> Hello All!
>
> Have here a Kantronics KPC3 Plus manaul upfor grabs.
>
> Good Condition for the exception of some kind of stain on bottom
> right side.. about the size of a 50cent piece.
>
> Just asking $5 and whatever it costs to get it shipped to the
> address your provide.
>
> Email me with your interest and we'll go from there.
>
> Respectfully,
> ~Benjamin
> de KB9LFZ {arrl.net}
>
>

5574. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 17:23:37 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <v0rneqeslpvpb6@corp.supernews.com>
Source record: 128313

Indeed! Traffic in this agricultural product was significant prior to
more modern dyes. It is still used for cultural purposes.
It continues to be a delight, especially on this news group, to see
the correlation between technical competence and knowledge of the world.
Well done CAM! Mac, N8TT

Mud indeed!

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net
Office: JCM@McLMcL.Com
"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E0DD393.3040209@ieee.org...
> J. McLaughlin wrote:
> > Dear Reg:
> > ... and some of the descendants still use woad (which is neither mud
> > nor purple) where we fled to be free
>
> Woad actually comes from "Isatis tinctoria", a member of the
> mustard family, and is blue.
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
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5575. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 17:29:25 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aukn1k$25t$1@helle.btinternet.com>
Source record: 128314

> Is this the same Reg Edwards who sez that hams won't even miss fifteen
> watts out of a 100 watt total (0.7 dB loss)? :-)
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
==========

Yes, that's me.

Unfortunately, Cec, when the SWR meter comes off its end stop there isn't
100 watts to start with.

Because of the incorrect load on the transmitter the output transistors get
hotter and output power falls off well before the (delayed)ALC takes matters
into its own hands.

To analyse performance of your system the PA protection features can be
ignored.

But in any case analysis is reduced to guesswork because you don't know the
internal impedance of the transmitter. If anybody says 50 ohms resistive I
shall scream and scream and scream! ;o)

Reg, G4FGQ

5576. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 17:29:26 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aukn1l$25t$2@helle.btinternet.com>
Source record: 128315

> The only men to walk on the moon were probably the progeny
> of those "Ancient Brits". :-)

==========

As I understand it they were conveyed there in vehicles designed by the
progeny of Attila the Hun. ;o)

5577. What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 18:09:03 UTC
From: Glynn Kevin <kfglynn@mindspring.com>
Message-ID: <aukq86$65k$1@slb2.atl.mindspring.net>
Source record: 128316

Hello everyone,

I was wondering what kind of balun you use on your dipole and/or other wire antennas.

I've used RG-213 coax chokes wound on 2 liter coke bottles as well as W2DU Unadilla 1:1 bead baluns with success. I'm in the process of making new antennas and was curious to what others were doing.

The plan is to have single inverted-v dipoles for 10 and 20 Meters, with a 40 Meter zig-zag dipole for 40 and 15 Meters or just a 30 Meter dipole (not sure on the 3rd one yet). BTW Doug DeMaw W1FB (SK) once told me on the phone that the coax chokes would work as well or better in my environment. TVI/RFI potential is huge where I live. A contester measured coax chokes and felt using 4" PVC as a form was superior to the W2DU bead baluns (6 turns for 20 Meters and up, 12 turns for 30 Meters and below). The feepoints will be about 9 feet above the roof with the coax coming off down to the roof, then running off the flat roof down to the window. I was thinking about a choke at the roof edge too, in case currents were being picked up by the shield on the coax.

Thanks for the input, I appreciate it.

73 Kevin N2TO
Brooklyn, NYC
kfglynn@mindspring.com

5578. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 18:19:47 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <upKcnfzNgacmZJCjXTWcoA@ctc.net>
Source record: 128223

> I agree. Long ago, I designed low noise vacuum tube amplifiers for use
> in radio astronomy. (I have a big binder somewhere that contains about
> all that was known about that art.) For best SNR, one does not use a
> conjugate match. See volume 18 of the MIT Radiation Lab series.

I don't have the training to determin the outcome and I understand that the mismatch is needed for the lowest noise figure. The only other thing is how much differance it will make in the aditional feedline loss not to have a good match to the coax. Where is the tradeoff between the matching and mismatching as to the total noise figuer of the whole system from the antanna to the preamp ?

5579. Re: Balun for helical antenna at 2.4 GHz ---- help!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 18:26:45 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <Igednc1bYLzTcZCjXTWcqw@comcast.com>
Source record: 128317

Tasos,

It depends on the twist, but the one I once built had a feedpoint impedance
of about 100 Ohms, unbalanced. So, you would use a 1/4 wave section of 75
ohm coax to match to 50 ohms. If the impedance is near 200 Ohms, use a 1/4
section of 93 Ohm (RG62) coax. I would bring the coax out behind the
reflector; mount an N connector on the reflector, and solder the helix to
its center pin.
Tam/WB2TT
"Tasos Zafeiropoulos" <abc@panafonet.gr> wrote in message
news:aujapchcf1@nic.grnet.gr...
> I want to make a balun for my helical antenna at 2.4 GHz...
>
> Can anyone help me out? Is it a good idea to use a L/4 coaxial cable to
> match the impedance?
>
> If yes, how can I can fit it in the antenna?
>
> Any suggestions woul b appreciated..
>
> Greetings
> Jim, duth.gr
>
>

5580. Re: CORRECTION (Refl Power Example)

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 18:40:36 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0DF024.30508@ieee.org>
Source record: 128318

Reg Edwards wrote:
> But in any case analysis is reduced to guesswork because you don't know the
> internal impedance of the transmitter. If anybody says 50 ohms resistive I
> shall scream and scream and scream! ;o)

Would you please record that event and post it as a .wav file
on your webpage? :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5581. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 18:48:03 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <aukrik$8481i$1@ID-140397.news.dfncis.de>
Source record: 128219
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

"Anon" <paul@anon.com> wrote in message
news:aIr2kvBxadD+EwKm@btinternet.com...
> Well is that so? Add yourself a bit of extra earthing and bond it to the
> PME - I think NOT!
>

> Both Peter Chadwick and I, who've had previous discussions and agreement
> on this would profoundly disagree with you!

Well I note you haven't put your name to this claim bit never mind, lets
look at it.

>
> PME, where the neutral has a disconnection somewhere outside of your
> property has likelihood to pass huge amounts of current, and hence a
> rise in potential down and to any local earth you might provide or have
> in your home. It is a cheap but dangerous way to supposedly provide an
> electrical earth.
>

The rise is potential is dependant on the resistance of the bonding lead.
The local electricity company recommend 10mm2 as being adequate for the
job. I assume they would know- the engineer I spoke to knew all about the
problem once I mentioned what I was concerned over.

> The answer is to provide yourself with some good quality ELCB's (30ma if
> possible) at your shack and home. Provide yourself with a good quality
> earthing system which is tested to current standards and when this is
> done disconnect the crappy PME system.
>

The local electricty company advised against this method - especially in
situtions where there was a real risk of the neutral disconnection, eg in an
area supplied by overhead wires. (It is extremely rare with buried supplies
they tell me.) In fact, they advised they would disconnect my supply if I
used it this method.

>
> From someone with Experience! Who has his PME disconnected and that's
> the way it's staying!
>

OK, but if you local supply company don't like it you may well get
disconnected.

5582. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 18:48:49 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0DF211.4020909@ieee.org>
Source record: 128220

Glynn Kevin wrote:
> I was wondering what kind of balun you use on your dipole and/or other wire
> antennas.

Using RG-400 teflon coax cuts down on the cost of the toroids. I have
measured the effectiveness of a number of balun/chokes and found a
W2DU type using RG-400 and ten FB-77-5621 cores is very effective,
more effective than ten turns of RG-400 on an FT-240-61 toroid.
--
cheers, CAM http://www.qsl.net/w5dxp

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5583. info wire antenna 80mtr/1:4 balun

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 19:01:32 UTC
From: Rollo Tomassi <rollotomassi1@hotmail.com>
Message-ID: <3e0df509$0$30071$fb624cd1@news1.zeelandnet.nl>
Source record: 128221

Hello ,

Any idea's on a URL about a wire antenna for 80 (or more bands) with a
Balun 1: 4 ?

5584. Re: Balun for helical antenna at 2.4 GHz ---- help!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 19:14:21 UTC
From: Tasos Zafeiropoulos <abc@panafonet.gr>
Message-ID: <aukt7b$88u$1@nic.grnet.gr>
Source record: 128222

The URL you gave me indicates to built a balun using a foil copper!

I had that in mind, but it was to difficult for me to find such a matterial
in my city!!

Well, not until i discovered a store that sells foil coppers...

I got the material, now I;m ready to finish the balun and hit the waves!!

Thanks for the assistance

> >I want to make a balun for my helical antenna at 2.4 GHz...
> >
> >Can anyone help me out? Is it a good idea to use a L/4 coaxial cable to
> >match the impedance?
> >
> >If yes, how can I can fit it in the antenna?
> >
> >Any suggestions woul b appreciated..
>
> look at http://helix.remco.tk/
>
> for constructing a 50 ohms matching.
>
> 73, Jan on4caf

5585. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 20:49:19 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <v0s3gkf4kgbi89@corp.supernews.com>
Source record: 128224

Dear Ralph:
I should have made clear that the NF in a receiving system, using modern components, hardly ever is significant below something like 25 MHz. (Off the top of my head, I can only remember one civilian receiving system operating in upper HF where NF was of concern.) In modern times, the effective SNR is determined outside of the receiver in almost all cases below about 25 MHz.
As many have said many times on this news group, at HF (and below) almost any piece of wire will "work." SNR can be improved by use of an antenna with a directivity (not necessarily gain) that suppresses undesired signals and enhances desired signals. For receiving, the transmission line, as long as it does not pick up undesired signals or undesirably distort the antenna's directivity, has almost nothing to do with SNR.
[I may have left out some of the assumptions.]
Above HF, loss in the transmission line adds noise (while attenuating the desired signal) that can be noticeable. In one UHF system with a short, solid transmission line from the antenna's feed to the first amplifier, I once considered a scheme to cool the transmission line in order to reduce the noise introduced by the line. This was not a terrestrial system. ...wrote a paper many years ago about the effective extraterrestrial noise picked up by a highly directive antenna pointed a bit above the horizon (at VHF and above).
To your question: For modern terrestrial HF receiving systems: unless the antenna has a very small "height" (incident E times height = volts), the issue is inconsequential. (A very short antenna, presents many issues.) A large ratio of transmission line surge impedance to nominal receiver input impedance might reduce the apparent signal enough to bring the receiver's NF into significance.

In short: have the two just mentioned impedances be in the same ball park.
73 Mac N8TT
--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

"Ralph Mowery" <rmowery@ctc.net> wrote in message

> I don't have the training to determin the outcome and I understand that the
> mismatch is needed for the lowest noise figure. The only other thing is how
> much differance it will make in the aditional feedline loss not to have a

> good match to the coax. Where is the tradeoff between the matching
and
> mismatching as to the total noise figuer of the whole system from the
> antanna to the preamp ?
>
>

5586. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 21:18:42 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <fn-dnVtuLs4xvpOjXTWcqg@ctc.net>
Source record: 128226

I knew that for anything below about 30 mhz the NF was not too important as most any modern device will have a low enough NF as not to worry. My main thainking was at frequencies around 150 mhz and above where a typical ham might run around 100 feet of coax with a loss of 1.5 to 3 db when matched. While a preamp mounted right at the antenna will have a lower NF when mismatched, my thinking was that we get some aditional loss in the coax due to a mismatch. My thinking was if the mismatch would result in a swr of 2 or 3 to 1 the aditional loss would be so low as not to be noticed and you gain due to the mismatch. However if the mismatch was 10 or 20 to 1 the aditional loss might make the overall NF of the system worse.

73 de KU4PT

> I should have made clear that the NF in a receiving system, using
> modern components, hardly ever is significant below something like 25
> MHz. (Off the top of my head, I can only remember one civilian
> receiving system operating in upper HF where NF was of concern.) In
> modern times, the effective SNR is determined outside of the receiver in
> almost all cases below about 25 MHz.
> As many have said many times on this news group, at HF (and below)
> almost any piece of wire will "work." SNR can be improved by use of an
> antenna with a directivity (not necessarily gain) that suppresses
> undesired signals and enhances desired signals. For receiving, the
> transmission line, as long as it does not pick up undesired signals or
> undesirably distort the antenna's directivity, has almost nothing to do
> with SNR.
> [I may have left out some of the assumptions.]
> Above HF, loss in the transmission line adds noise (while
> attenuating the desired signal) that can be noticeable. In one UHF
> system with a short, solid transmission line from the antenna's feed to
> the first amplifier, I once considered a scheme to cool the transmission
> line in order to reduce the noise introduced by the line. This was not
> a terrestrial system. ...wrote a paper many years ago about the
> effective extraterrestrial noise picked up by a highly directive antenna
> pointed a bit above the horizon (at VHF and above).
> To your question: For modern terrestrial HF receiving systems:
> unless the antenna has a very small "height" (incident E times height =
> volts), the issue is inconsequential. (A very short antenna, presents
> many issues.) A large ratio of transmission line surge impedance to
> nominal receiver input impedance might reduce the apparent signal enough
> to bring the receiver's NF into significance.
>
> In short: have the two just mentioned impedances be in the same ball
> park.
> 73 Mac N8TT

> --
> J. Mc Laughlin - Michigan USA
> Home: JCM@Power-Net.Net
>
> "Ralph Mowery" <rmowery@ctc.net> wrote in message
>
> > I don't have the training to determin the outcome and I understand
> that the
> > mismatch is needed for the lowest noise figure. The only other thing
> is how
> > much differance it will make in the aditional feedline loss not to
> have a
> > good match to the coax. Where is the tradeoff between the matching
> and
> > mismatching as to the total noise figuer of the whole system from the
> > antanna to the preamp ?
> >
> >
>

5587. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 22:06:22 UTC
From: tdonaly@aol.com
Message-ID: <20021228170622.28420.00000353@mb-fv.aol.com>
Source record: 128225

Reg wrote,
>
>> The only men to walk on the moon were probably the progeny
>> of those "Ancient Brits". :-)
>
>==========
>
>As I understand it they were conveyed there in vehicles designed by the
>progeny of Attila the Hun. ;o)
>

Are you saying that the Han people are descendants of the Hsiung Nu
Tartars? Boy! What an insult!
73,
Tom Donaly, KA6RUH

5588. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 22:40:21 UTC
From: Frank Turner-Smith <g3vki@ntlworld.nospam.com>
Message-ID: <hLpP9.1055$1N3.369@newsfep2-win.server.ntli.net>
Source record: 128227
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

Martin wrote:
<snip>
> I did here about using RG8 type coax and connecting both inner and
> screen to the hardware in the ground but only connecting the shack
> earth buss to the
> inner - any thoughts on this.
>
> Cheers Martin

At my last QTH I did exactly as you describe and it worked well for many years. I also disconnected the earth pin on every mains lead for my rig and linked all the chassis together with coax braid.
I'm not sure of the legalities of this, but what nobody knows, nobody worries about. Good luck.
;>)
--
73 de Frank Turner-Smith G3VKI

watch this space - if it moves, see your optician.

5589. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 22:56:45 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <N_pP9.485262$%m4.135474@rwcrnsc52.ops.asp.att.net>
Source record: 128228

It just goes to show. You Brits get rid of your best things. We're here and
so is your measurement system.
--

CW
KC7NOD

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:aukg7e$e7i$1@venus.btinternet.com...
>
> Only United States Citizens are still living in the measurements age of
> Ancient Brits, bodies all painted with purple woad (mud).
> ---
> ==========================
> Regards from Reg G4FGQ
> For Free Radio Design Software
> Go to http://www.g4fgq.com
> ==========================
>
>

5590. Re: Roxanna, this is my view from NYC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-28 23:59:08 UTC
From: charlesb <n5pvl@sbcglobal.net>
Message-ID: <gVqP9.1690$Ck4.1206925497@newssvr11.news.prodigy.com>
Source record: 128229
Cross-posted to: rec.arts.prose,rec.music.makers.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc

"Josef L. Harris" <DK088mHJ@OXUQXA.ORG.HK> wrote in message
news:c553d70f.904dc358@OXUQXA.ORG.HK...
> a very skillful attack
>

It seemed kind of stupid and disconnected to me. I wrote better social
commentary when I was twelve.

... And this has *what* to do with digital ham radio?

Charles, N5PVL

5591. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 00:29:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <v0sgen6556b3a4@corp.supernews.com>
Source record: 128230

I use 8-10 turns of RG-174 on a 1.25" ferrite toroid, type 43 or any of
the 70 series ferrites. I mount it at the feedpoint with a couple of
cable ties or a spot of hot melt glue or RTV.

Roy Lewallen, W7EL

Glynn Kevin wrote:
> Hello everyone,
>
> I was wondering what kind of balun you use on your dipole and/or other wire
> antennas.
>
> I've used RG-213 coax chokes wound on 2 liter coke bottles as well as W2DU
> Unadilla 1:1 bead baluns with success. I'm in the process of making new
> antennas and was curious to what others were doing.
>
> The plan is to have single inverted-v dipoles for 10 and 20 Meters, with a
> 40 Meter zig-zag dipole for 40 and 15 Meters or just a 30 Meter dipole (not
> sure on the 3rd one yet). BTW Doug DeMaw W1FB (SK) once told me on the
> phone that the coax chokes would work as well or better in my environment.
> TVI/RFI potential is huge where I live. A contester measured coax chokes
> and felt using 4" PVC as a form was superior to the W2DU bead baluns (6
> turns for 20 Meters and up, 12 turns for 30 Meters and below). The
> feepoints will be about 9 feet above the roof with the coax coming off down
> to the roof, then running off the flat roof down to the window. I was
> thinking about a choke at the roof edge too, in case currents were being
> picked up by the shield on the coax.
>
> Thanks for the input, I appreciate it.
>
> 73 Kevin N2TO
> Brooklyn, NYC
> kfglynn@mindspring.com
>
>
>
>

5592. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 00:38:34 UTC
From: "J. McLaughlin" <JCM@Power-Net.Net>
Message-ID: <v0sguafankarcd@corp.supernews.com>
Source record: 128231

Dear Ralph KU4PT:
Ah! 150 MHz. Perhaps I am finally in the right church. Sorry to
have gone on about HF.
I think that I understand your concern. [Mind, I may still not be
near the right pew.] Your concern is that the "mismatch" that optimizes
the receiver's NF might reflect (very small pun) an additional loss that
would tend to negate the benefit from the "mismatch."
Not to be concerned. The "mismatch" with modern components is
expected to be too slight to effect a noticeable additional loss.

Sorry that it took an iteration for me to get close to the subject.
Once upon a time, most every class had at least one perceptive student
who would ask your kind of question. Of course, at that time, at least
a few of every class would be radio amateurs. I have got out of
practice. Thanks for continuing.
It is also nice to see a call sign. Too often, that nicety is left
off.
Keep asking questions.
73, Mac N8TT

--
J. Mc Laughlin - Michigan USA
Home: JCM@Power-Net.Net

"Ralph Mowery" <rmowery@ctc.net> wrote in message
news:fn-dnVtuLs4xvpOjXTWcqg@ctc.net...
> I knew that for anything below about 30 mhz the NF was not too
important as
> most any modern device will have a low enough NF as not to worry. My
main
> thainking was at frequencies around 150 mhz and above where a typical
ham
> might run around 100 feet of coax with a loss of 1.5 to 3 db when
matched.
> While a preamp mounted right at the antenna will have a lower NF when
> mismatched, my thinking was that we get some aditional loss in the
coax due
> to a mismatch. My thinking was if the mismatch would result in a
swr of 2
> or 3 to 1 the aditional loss would be so low as not to be noticed and
you
> gain due to the mismatch. However if the mismatch was 10 or 20 to 1
the
> aditional loss might make the overall NF of the system worse.
>

> 73 de KU4PT
>
>

5593. Re: Roxanna, this is my view from NYC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 00:41:23 UTC
From: W6DKN <w6dkn-nospam-@qsl.net>
Message-ID: <BprP9.26235$BP.4568@fe01>
Source record: 128232
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc

"Josef L. Harris" <DK088mHJ@OXUQXA.ORG.HK> wrote in message
news:c553d70f.904dc358@OXUQXA.ORG.HK...
> a very skillful attack
>
> who profits?
>
> -Israeli incursions in two P.A. towns
> -the largest British fleet organized in eighteen years
> "coincidentally" has been on route for days nearing the
> Middle East for "maneuvers"
> -America asking for coalition of global powers for
> new "counter-insurgent" war... a planetary Vietnam.
<<< Rest of rambling rand deleted >>>

Nice diatribe, pal. Now be quiet and sit back while we exterminate these low life bastards... :>) Admiral Yamamoto had a bad case of constipation right after attacking Pearl Harbor because *he knew* what was coming... who knows, maybe the middle east will glow in the dark too when it's all said and done...

73 de W6DKN

5594. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 01:29:59 UTC
From: Jimnn7k@reno.rmci.net
Message-ID: <17sP9.26256$BP.14780@fe01>
Source record: 128233

Ralph, for all intent and purposes you are correct about 30 mHz and lower. in fact, as terrestrial noise peaks at around 50 mHz (6 meters), the bragging rights for converters, preamps, ect. in "anchient times" (early 1960's thru late 70's) was more sales pitch, than practicality. for a tower mounted preamp, at 2 meters, with only a slight mistuning on the INPUT (not effecting the output, tune for max umph) the only consideration for the preamp (apart from being able to withstand transmitting power with change-over relays) is to have enough gain to overcome the coax loss, AND the noise figure of the reciever (combined) to maximize your reception (apart from the bandwidth of your reciever (gain 6 dB in sensitivity every time you HALF your reciever bandwidth. S= 4ktRB , if memory serves me correct, Sensitivity = 4 X temprature in o 's Kelvin, X Boltzmans Constant X Reciever Bandwidth). For preamp at the reciever, the swr for the input of the preamp will be so slight as to be next to nonexistant as far as multiplying loss's because of swr.
Mac is the real expert here, me? just been vhfing for around 40 years (this september), trying to push signals to where they shouldn't go) jim nn7k

to reply (should have said this before), NN7K@reno.rmci.net
jim

"Ralph Mowery" <rmowery@ctc.net> wrote in message
news:fn-dnVtuLs4xvpOjXTWcqg@ctc.net...
> I knew that for anything below about 30 mhz the NF was not too important
as
> most any modern device will have a low enough NF as not to worry. My main
> thainking was at frequencies around 150 mhz and above where a typical ham
> might run around 100 feet of coax with a loss of 1.5 to 3 db when matched.
> While a preamp mounted right at the antenna will have a lower NF when
> mismatched, my thinking was that we get some aditional loss in the coax
due
> to a mismatch. My thinking was if the mismatch would result in a swr of
2
> or 3 to 1 the aditional loss would be so low as not to be noticed and you
> gain due to the mismatch. However if the mismatch was 10 or 20 to 1 the
> aditional loss might make the overall NF of the system worse.
>
> 73 de KU4PT
>

5595. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 01:36:28 UTC
From: Roger Leone <arleone@inreach.com>
Message-ID: <FctP9.1415$RG.324089959@news.inreach.com>
Source record: 128234

I am running a full wave loop on 40 meters, using direct coax feed (1/4 wave of 75 ohm coax for impedance transformation, then 50 ohm coax to rig) No balun...works great.

Roger K6XQ

5596. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 01:38:57 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0E5231.4010004@ieee.org>
Source record: 128235

Roger Leone wrote:
> I am running a full wave loop on 40 meters, using direct coax feed (1/4 wave
> of 75 ohm coax for impedance transformation, then 50 ohm coax to rig) No
> balun...works great.

What are the magnitudes of your common-mode currents?
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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5597. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 02:47:09 UTC
From: Roger Leone <arleone@inreach.com>
Message-ID: <WeuP9.1417$gP.324639885@news.inreach.com>
Source record: 128236

Don't know and don't care...

Roger

5598. Re: How much difference does a resonant antenna make?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 03:24:57 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <WtGdnc-l9-IV5JOjXTWc3A@ctc.net>
Source record: 128239

> Ah! 150 MHz. Perhaps I am finally in the right church. Sorry to
> have gone on about HF.
> I think that I understand your concern. [Mind, I may still not be
> near the right pew.] Your concern is that the "mismatch" that optimizes
> the receiver's NF might reflect (very small pun) an additional loss that
> would tend to negate the benefit from the "mismatch."
> Not to be concerned. The "mismatch" with modern components is
> expected to be too slight to effect a noticeable additional loss.
>
Thanks for the reply Mac. When you mentioned radio astronomy I assumed that you ment vhf and above and not around 18 to 20 mhz for Jupiter. I have noticed that 6 meters seems to be the worse band around here for noise of all kinds. About all that is worse is when I fire up the computer in the ham shack and get s9+20 db of noise right on the calling frequency for ssb.

I do play with some 144 and 432 weak signal stuff. Have built a gasfet preamp for 144 mhz out of the handbook a few years ago and also have one for 432 but they are both in the shack. Just too much trouble for me to add all the relays and tower mount the preamps for the playing I do . Also I would have to duplicate that as I have antennas setup for oscar on another short tower. Have about 100 feet of 9913 type coax for both bands and that was really the reason for the question. Most people only look at the swr at the transmitter end, but on receiving I also think you have to look at it from the antenna end going back to the receiver to get the aditional los due to the swr. I know that if the swr is low or the line has a very small loss the swr is not too important to signal loss but it can be a big part of the loss if the swr is high and line loss is high. I usually send a signal out of a service monitor to a small antenna and try to adjust the preamp for the best S/N ratio as I don't have a good way to actually measuer the NF. That sets the whole system for maximum s/n instead of adjusting the preamps with the signal generator plugged into the preamp. I was just courious as to the differanc in what would hapen if I did have the equipment to do the checks.

73 de KU4PT

5599. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 03:27:18 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0E6B96.8030704@ieee.org>
Source record: 128237

Roger Leone wrote:
> Don't know and don't care...

If you don't know and don't care, how do you know it's
"working great"? It just might work a lot better if it
had less feedline radiation. What did you compare it to?
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

5600. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 04:15:19 UTC
From: Roger Leone <arleoneNoSpam@inreach.com>
Message-ID: <PxvP9.1421$181.325992549@news.inreach.com>
Source record: 128238

I am comparing it to other antennas I have used on 40 meters, including dipoles, verticals, and 1/4 wave slopers. I have used baluns on some of those antennas, but never could detect any difference in performance with or without one.

My loop works fine without a balun. If you choose to use a balun as a matter of course, great. Have you ever tried comparisons with an without a balun? How many dB of improvement have you observed with a balun?

Roger

5601. Re: CQ! Do You Recognise This HF Amateur Mobile Antenna by description?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 04:26:42 UTC
From: fmmck@aol.com
Message-ID: <20021228232642.21128.00000295@mb-fm.aol.com>
Source record: 128240

<< The loading coil/cap was called the "WHIPLOAD-6". >>

Cecil-

I dug through some old boxes and found my 1955 ARRL "Radio Amateur's Handbook". In the E. F. Johnson advertisement section in the back, I found reference to two antenna loading networks.

The one I was thinking of, is called "Bi-Net". It is a dual band loading network for ten and twenty meters. It mounts in the center of a "standard" mobile whip for completely automatic band change while in motion! Catalog number 250-22, Amateur Net $10.95.

This one is streamlined, with a tear-drop shape when viewed from the top. According to the ad, the size is 4-7/16" X 5-5/16" X 2-3/8".

The other one is the "Whipload-6". It appears to be cylindrical. The ad doesn't mention its size, but from the photograph, I imagine it might be like a small coffee can.

According to the ad, the Whipload-6 provides high efficiency base loading for mobile whips with instant bandswitch selection of 75, 40, 20, 15, 11 and 10 meters. On 75 meters a special capacitor, with dial scale, permits tuning entire band. Covers other bands without tuning. Air-wound coil provides extremely high "Q". Fibre-glass housing protects assembly. Mounts on standard mobile whip. Catalog number 250-26, Amateur Net $19.50.

I wonder if either of these match the one Wilf has?

73, Fred, K4DII

5602. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 04:30:05 UTC
From: Murray Neece <radioranch@qth.com>
Message-ID: <3E0E7A4D.74E8507@qth.com>
Source record: 128241
Body handling: Binary attachment payload not displayed: radioranch.vcf

Baluns do not add nor usually detract from your antenna perfomance, they do however eliminate RFI...that is the main purpose of your basic 1:1 balun...the others are used to match input/ouput...and really do help. search a little deeper, and you will find a wealth of value in baluns, as well as many ways to NOT use them. 73 K5MDM

Roger Leone wrote:

> I am comparing it to other antennas I have used on 40 meters, including
> dipoles, verticals, and 1/4 wave slopers. I have used baluns on some of
> those antennas, but never could detect any difference in performance with or
> without one.
>
> My loop works fine without a balun. If you choose to use a balun as a
> matter of course, great. Have you ever tried comparisons with an without a
> balun? How many dB of improvement have you observed with a balun?
>
> Roger

[One or more binary attachments are retained only in the source text.]

5603. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 04:57:17 UTC
From: Roger Leone <arleoneNoSpam@inreach.com>
Message-ID: <89wP9.1424$w91.326089786@news.inreach.com>
Source record: 128242

"Murray Neece" <radioranch@qth.com> wrote in message
news:3E0E7A4D.74E8507@qth.com...
> Baluns do not add nor usually detract from your antenna perfomance, they
do
> however eliminate RFI...that is the main purpose of your basic 1:1
balun...

If only it was this simple!

Roger

5604. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 05:22:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <v0t1kmgsqb3h3a@corp.supernews.com>
Source record: 128243

If you're interested in learning what baluns do, you might take a look at "Baluns: What They Do and How They Do It" in the ARRL Antenna Compendium, Vol. 1. It really is pretty simple.

Roy Lewallen, W7EL

Roger Leone wrote:
> "Murray Neece" <radioranch@qth.com> wrote in message
> news:3E0E7A4D.74E8507@qth.com...
>
>>Baluns do not add nor usually detract from your antenna perfomance, they
>
> do
>
>>however eliminate RFI...that is the main purpose of your basic 1:1
>
> balun...
>
> If only it was this simple!
>
> Roger
>
>

5605. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 06:05:52 UTC
From: Roger Leone <arleoneNoSpam@inreach.com>
Message-ID: <s9xP9.1430$hl1.326858824@news.inreach.com>
Source record: 128244

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:v0t1kmgsqb3h3a@corp.supernews.com...
> If you're interested in learning what baluns do, you might take a look
> at "Baluns: What They Do and How They Do It" in the ARRL Antenna
> Compendium, Vol. 1. It really is pretty simple.
>
> Roy Lewallen, W7EL

Roy,

If you are asserting now, as Murray did, that RFI is eliminated by use of a balun, I don't find that claim in your article. You do mention the frequently cited "TVI caused by a nearby radiating feedline", but in what percentage of RFI problems is that the cause? I suspect the most RFI comes from antenna radiation, not feedline radiation. A balun has no effect on that.

I always thought a balun was intended to facilitate the connection of something BALanced to something UNbalanced. There are situations where we would want to do that. That part IS pretty simple. But curing RFI is rarely as simple as adding a balun.

73,

Roger K6XQ

5606. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 11:58:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <v0tos4d6lk6257@corp.supernews.com>
Source record: 128245

Roger Leone wrote:
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:v0t1kmgsqb3h3a@corp.supernews.com...
>
>>If you're interested in learning what baluns do, you might take a look
>>at "Baluns: What They Do and How They Do It" in the ARRL Antenna
>>Compendium, Vol. 1. It really is pretty simple.
>>
>>Roy Lewallen, W7EL
>
>
>
> Roy,
>
> If you are asserting now, as Murray did, that RFI is eliminated by use of a
> balun, I don't find that claim in your article. You do mention the
> frequently cited "TVI caused by a nearby radiating feedline", but in what
> percentage of RFI problems is that the cause? I suspect the most RFI comes
> from antenna radiation, not feedline radiation. A balun has no effect on
> that.

I have no idea how many RFI problems are caused or aggravated by radiating feedlines. But in my limited experience, I've found that common mode currents on conductors such as power cords, telephone lines, or speaker cables are most often the means of ingress of RF into consumer devices. And exactly the same techniques described in the article are effective in eliminating common mode currents on these conductors.

Feedlines often run much closer to house power and telephone wiring than antennas do. So relatively small common mode feedline currents can often couple a considerable amount of RF into house wiring. In cases where this is the coupling method, a balun will help.

>
> I always thought a balun was intended to facilitate the connection of
> something BALanced to something UNbalanced.

Yes, I mindlessly repeated this phrase for many years without having any idea what it really meant before I finally decided to try and understand just what is meant by balance and unbalance, exactly what it is that's balanced or unbalanced, why or why not it might be desirable to use some kind of device to transition from one to the other, what the consequences would be of not doing it, and how one could evaluate how effective a balun is at doing whatever it is they're supposed to do.

With the single exception of Walt Maxwell's article (referenced at the end of the Compendium article), I couldn't find any answers among the large volume of published material. The result of my search for understanding was the the Compendium article.

There are situations where we
> would want to do that. That part IS pretty simple.

Indeed it is. So isn't it surprising that until Walt's article nobody bothered to explain it, and that many balun articles were written which told in great detail how to measure various properties of baluns that have nothing to do with the characteristics they need to have in order to be effective?

But curing RFI is
> rarely as simple as adding a balun.

Again in my limited experience, adding a common mode choke (or, as the term is used in the article, a "current balun") to appliance leads does often cure a household RFI problem. But I certainly agree that a great number of RFI problems aren't solved by this technique, and more yet aren't solved by adding a balun to an antenna transmission line (which is actually your point). No single technique is always effective.

The reason I always use a balun is simply that I want my antennas to act predictably, with respect to pattern and impedance, and don't like them to be sensitive to feedline length and placement or the length of the wire from my rig to the Earth. I'm also not fond of the idea of losing power by running my feedline along the ground. But many or most hams could care less about these considerations and so do just fine without baluns. Others are occasionally annoyed by "hot" microphones or other undesirable effects and fiddle with feedline lengths until the problem is reduced to a tolerable level. That's fine too.

Roy Lewallen, W7EL
>
> 73,
>
> Roger K6XQ

5607. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 12:13:42 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0EE6F6.1080506@ieee.org>
Source record: 128246

Roger Leone wrote:
> Have you ever tried comparisons with an without a balun?

Yep, back in high school I burned a hole in my lip from my
metal microphone. My ham mentor told me to coil up my coax
outside my window and tie the braid to a ground rod. My
RF-in-the-shack problem went away. My present 450 ohm
ladder-line fed dipole has five times as much common-
mode current without a choke as it does with one.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5608. Re: 2m Halo

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 13:06:58 UTC
From: "r.dring" <r.dring@ntlworld.com>
Message-ID: <jrCP9.133$Ck2.54849@newsfep2-gui>
Source record: 128247

Hello you will find details in 2 "The two meter antenna handbook" by FC Judd G2BCX also in the RSGB "Radio communication handbook volume 2" I hope these help
Ray G0BXG

"Richard" <happyraveruk@yahoo.com> wrote in message news:auhvq1$7a6j0$1@ID-155271.news.dfncis.de...
> Anyone know where I might find info on constructing a 2m halo loop ?
> Or any other easy to build horizontal antenna for 2 for that matter !
>
>

5609. Re: HF Mobile Antenna Shootouts

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 13:58:35 UTC
From: Watcher <noone@noaddress.net>
Message-ID: <n4ut0vg5d3tjrqfskku78jneuphq2skivt@4ax.com>
Source record: 128249

On Sat, 28 Dec 2002 15:12:34 GMT, "Harvey Tetmeyer" <azharvey@cox.net>
wrote:

>Does anyone know about a mobile HF antenna shootout coming up in the near
>future?
>
>Are results of previous shootouts posted somewhere on the net?
>
>I haven't followed this for a while and would like to get caught up on the
>latest and greatest in mobile HF antenna installations.
>
>Happy New Year and 73 all,
>
>Harvey, K5LJM
>Sun City, AZ
>

I ran one in El Paso Texas a few years ago and encountered
more hecklers than participants so I just salvaged the equipment.
Cecil came over and was a big help he may have more to offer.
The California group that did a several shoot-outs seems to have
stopped since Jessie moved to the Pacific Northwest.

If you do a Google Groups search you should find results from the
California events. Bottom line the best thing center coil loaded with
extensive top hats. Screwdriver types down just 1-2 dB. Worst
performers my Outbacker on a mag mount and Cecil's CB whip
with a SGC tuner. Hamsticks and Hustlers are a bit better but
nothing matches the center loaded designs. The one exception
was a Texas Bugcatcher style that was constructed out of
stainless steel, what a dog even my Outbacker outperformed it.

5610. TROLL: Roxanna, this is my view from NYC

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 14:18:09 UTC
From: una@att.net
Message-ID: <aun02c$8t0$1@doliolum.localnet>
Source record: 128248
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc

Please don't feed the troll. "[Some name], this is my view from NYC" is all over Usenet today.

Una

5611. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 15:20:47 UTC
From: Roger Leone <arleoneNoSpam@inreach.com>
Message-ID: <IhFP9.1439$Rv3.332782683@news.inreach.com>
Source record: 128251

Cam:

My balun-less loop exhibits no RFI or RF in the shack, even running close to a KW output power. So I don't have a problem for a balun to cure, I guess.

That may not be the case for all antennas, and in some cases a balun will help. In other cases a balun won't make any difference.

When I put up the loop I had planned to use a balun. I wanted to first prune the loop to resonance, check the SWR, then install a balun. I was even looking into possible designs for a balun with a 2:1 impedance transformation so I could replace the 1/4 wave length of 75 ohm coax. But the antenna's performance seemed fine without a balun. It showed no measurable reflected power at resonance and had a wider SWR bandwidth than any other 40 meter antenna I have used, so I decided to leave well enough alone.

73,

Roger

5612. Re: HF Mobile Antenna Shootouts

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 15:29:16 UTC
From: David Robbins <k1ttt@arrl.net>
Message-ID: <klycnZTQO6BeiZKjXTWc2Q@crocker.com>
Source record: 128250

> On Sat, 28 Dec 2002 15:12:34 GMT, "Harvey Tetmeyer" <azharvey@cox.net>
> wrote:
>
> >Does anyone know about a mobile HF antenna shootout coming up in the near
> >future?
> >
> >Are results of previous shootouts posted somewhere on the net?
> >
> >I haven't followed this for a while and would like to get caught up on
the
> >latest and greatest in mobile HF antenna installations.
> >

you want competition? check out this site:
http://www.bigradios.com/competition.html

and here is where to get your antennas:
http://users.cis.net/kingpop/Bigcoil.htm

but be sure to get a pair of those or they'll melt down if you run full
power on some of these:
http://www.davemade.com/mobile.htm

5613. Type of Inductor for LP HP Filters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 16:17:34 UTC
From: Al <ABurzynski@nojunk.satx.rr.com>
Message-ID: <yeFP9.72618$Nz5.2064399@twister.austin.rr.com>
Source record: 128252

I am using a great filter design software package called Elsie from WB6BLD available here

http://mywebpages.comcast.net/tonne/software.html

The software allows me to tune component values then graph the final filter results. The filters I plan on building will be used for receive only and will be a LP with a cutoff at 500kHz and a HP with a cutoff of 1700kHz. The filters will be placed just before the receiver at the antenna input. I'm having various problems with the AM band that I want to eliminate. Can I use molded chokes for the inductors? To come up with close to exact values, can I parallel the molded inductors or will this cause too much coupling problems? What type of inductor would you recommend?

Thanks for all input.
Al
KA5JGV

5614. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 16:32:11 UTC
From: k1bqt@aol.com
Message-ID: <20021229113211.22983.00000283@mb-mf.aol.com>
Source record: 128253

Always thought my labtop modem and cordless phone were consumer-grade junk until I choked my feedlines. Now I run a kW without bothering either.

The simple fact is, common-mode chokes do exactly what they are proported to do. I've verifed this concept by attaching sensitive clamp-on RF current meters to a 15-meter coax-fed dipole strung 7-feet off the ground (meters on each leg and one on the feedline). I used barrel connectors and short patch cables to vary feedline length and used clamp-on #43 sleeves to choke the coax (or not) at the feedpoint. If you want dramatic proof, try it yourself.

I found that isolating the outer surface of the shield virtually assured balanced (symetrical) current distribution on the horizontal radiator regardless of feedline length or far-end termination (grounded vs. floating). On the other hand, when the coax wasn't isolated by a choke, current symetry was variable--anywhere from excellent to awful--depending on the impedance the "third wire" (shield) presented to the feedpoint.

Needless to say, when the feed began to rob current from the intended radiator, mucho guano began to happen. For example, the radiator's resonant frequency tended to shift off its predicted point, the antenna's driving impedance began to change, the cable surface tended to radiate RF (and--by reciprocity, pick up noise when receiving), and the pattern shape became perturbed. However, beyond all these effects, probably the increased level of ambient RF energy appearing at the operating site poses the greatest "real-world" problem for operators.

In most antenna installations, the load presented by the outer surface of the shield is difficult to predict because there are simply too many variables in play. So why dub around? Isn't it better to install a choke at the feedpoint as a matter of good engineering practice and be done with it?

Rick K1BQT

5615. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 16:43:33 UTC
From: Roger Leone <arleoneNoSpam@inreach.com>
Message-ID: <hvGP9.1441$eF3.333396074@news.inreach.com>
Source record: 128254

Rick:

Let me see if I have this correct...I am saying I don't have any problems
and you are telling me how to cure them?

Roger

5616. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 18:29:02 UTC
From: "r.dring" <r.dring@ntlworld.com>
Message-ID: <uCHP9.2100$1N3.314582@newsfep2-win.server.ntli.net>
Source record: 128255
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

Hello Martin are you in the UK or some other part of the world. There are 3 items of elevated earthing that need to be addressed. Any mains operated RF equipment must have an efective electrical earth, which is not the same as an RF earth. Any RF earth lead, dropping from an elevated shack, could be a significant portion of a wavelength, so you really ought to decide what bands you are expecting to work. It is not difficult to solve once you know the pitfalls.
If you are in the UK have a look at your electricity meter instalation, and see if there is a label marked PME or Protective Multiple Earthing, if you are in a high rise block you may need to make further inquiries as many were wired in that way.
Regards Ray G0BXG
"Martin" <Martin@_NOSPAM_g1gyc.demon.co.uk> wrote in message news:auiv4t$f10$1$8300dec7@news.demon.co.uk...
> Hi, and thank you for reading this.
> I am in stalling my radio station in to the small "box room" on the 2nd
> floor
> of the building and I have in the past not worried about a separate earth
> for
> the station. But as this station is going to be a more permanent
arrangement
> than my other previous locations I want to make sure that :-
> 1) the station is safe electrically. (of course the supply earth will be
> connected)
> 2) protected form static (lightening etc).
> 3) has a good RF performance. (this means low resistance earth connection)
> 4) is as clear of EMC problems as possible.
>
> So any one got some pointers or helpful hints on installing a separate
> station
> earth. The ground connection is easy 3 to 6 off 6' long 1" dia copper
pipes
> driven all the way in to the soil (I know it is a big is job but not
> impossible).
> The bit I am puzzling over is do I use a heavy copper strap as used on
> church
> lightening conductors to provide a common earth for every thing or just
for
> the
> static protection and then a separate heavy conductor to provide the shack
> equipment earth.
> In either case how can I ensure that the earthing does not radiate RF (I
> assume

> that making sure the aerials are correctly balanced with suitable baluns
> fitted is
> the answer here.)
> I did here about using RG8 type coax and connecting both inner and screen
> to the hardware in the ground but only connecting the shack earth buss to
> the
> inner - any thoughts on this.
>
> Cheers Martin
>
>

5617. Re: FM Reception

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 19:02:26 UTC
From: "r.dring" <r.dring@ntlworld.com>
Message-ID: <SPHP9.2105$1N3.307790@newsfep2-win.server.ntli.net>
Source record: 128256

Bill
Check your cable TV supplier they may supply an FM signal on the cable system, alternatively
Do you have any walls that line up with the wanted stations + - 45 degrees, or are broadside on to the wanted transmissions, especially if they are dry lining type walls. One idea that has been successful is to construct either yagi type beams, or broadside arrays, out of tinfoil (Cooking foil) or the burglar alarm tape you stick on windows.
You construct the antennas by cutting and pasting it on the wall (tacking care to ensure electrical contact at any joints) when it is finished you simply wallpaper over it
Regard Ray G0BXG
"Richard Harrison" <richardharrison@webtv.net> wrote in message news:20913-3E00A5E4-67@storefull-2318.public.lawson.webtv.net...
> Bill wrote:
> "Any ideas?"
>
> Get stations from the web, cable, or from the directions you can access,
> assuming you don`t want to move or erect an antenna in a good location.
> You may get a good reflected signaL
>
> An FM portable is often helpful in finding a workable antenna site.
>
> Best regards, Richard Harrison, KB5WZI
>

5618. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 19:30:17 UTC
From: gareth@lightfox.demon.co.uk
Message-ID: <20021229.193017.63@lightfox.demon.co.uk>
Source record: 128258
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

Just a thought.

Has anyone ever installed a mains isolating transformer or two
and run the shack items off of that ? The idea being that those
shack items can then have their chassis connected to an 'RF'
garden-style earth rather than the household mains earth - there
being no direct connection between the two earths.

Cheers,

Gareth.

--
http://www.rat.org.uk/

5619. Re: Type of Inductor for LP HP Filters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 19:35:27 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <PqWcnY43wNB40JKjXTWcow@comcast.com>
Source record: 128257

Al,

I think you are trying to reject the broadast band. Have you thought out the configuration. You can't put the filters in series. If you put them in parallel, you have to be careful about how you couple them. For instance, if the LPF is capacitor input, it will short the input to your HPF. When you run the software to graph the filters, do it with both filters connected.

Generally people put inductors in series. If by molded inductors you mean the things about the size of 1/2 W resistors, they are fairly low Q, and will result in a lossy filter. The inductors in your LPF will have lots of resistance. For receive, that might be OK. It would be cheaper and better to wind your own inductors on toroidal cores.

I suspect you will get lots of comments on this one.

Tam/WB2TT
"Al" <ABurzynski@nojunk.satx.rr.com> wrote in message
news:yeFP9.72618$Nz5.2064399@twister.austin.rr.com...
> I am using a great filter design software package called Elsie from WB6BLD
> available here
>
> http://mywebpages.comcast.net/tonne/software.html
>
> The software allows me to tune component values then graph the final
filter
> results. The filters I plan on building will be used for receive only and
> will be a LP with a cutoff at 500kHz and a HP with a cutoff of 1700kHz.
The
> filters will be placed just before the receiver at the antenna input. I'm
> having various problems with the AM band that I want to eliminate. Can I
use
> molded chokes for the inductors? To come up with close to exact values,
can
> I parallel the molded inductors or will this cause too much coupling
> problems? What type of inductor would you recommend?
>
> Thanks for all input.
> Al
> KA5JGV
>
>

5620. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 19:47:58 UTC
From: Dan Wood <mr.wood@no.spamthanks.bigfoot.com>
Message-ID: <sjIP9.758$xE1.101690@stones>
Source record: 128259
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

Gareth Rowlands <gareth@lightfox.demon.co.uk> wrote in message
news:20021229.193017.63@lightfox.demon.co.uk...
> Just a thought.
>
> Has anyone ever installed a mains isolating transformer or two
> and run the shack items off of that ? The idea being that those
> shack items can then have their chassis connected to an 'RF'
> garden-style earth rather than the household mains earth - there
> being no direct connection between the two earths.
>
> Cheers,
>
> Gareth.
>
> --
> http://www.rat.org.uk/

This can get very dangerous if it is possible to come into contact with the 'mains' earth in the house, and the 'shack' earth simultaneously. Any difference in potential can be quite uncomfortable, and under certain conditions might be fatal!

If you go down this road, make absolutely sure that nothing that is earthed on the house supply, or any metalwork, pipes etc is anywhere near anything in the shack. Something as innocent as vacuuming out the shack (not that I ever have) could prove nasty if you have one hand on the vacuum cleaner and the other touches your radio gear...

I had my earthing checked out after I got a surprise one day while standing out in the garden and reaching through the kitchen window to turn the wireless up. Funny buzzing sensation... I measured about 95 volts between mains earth and a spike stuck in the lawn! Turns out that all my wiring and earthing is all OK according to qualified people, but personally I'm not convinced. I just treat 'inside' and 'outside' as two very different places. I'm not sure how the 95 volt potential is developed as I'm not on PME here, even though it seems like the kind of thing that happens when PME goes wrong!

Dan.

5621. Re: MORE WINE!! Re: Insulated Antenna Wires and Californian Grapes.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 19:54:07 UTC
From: fractenna@aol.com
Message-ID: <20021229145407.27493.00000253@mb-bk.aol.com>
Source record: 128261

Of course, if you don't insulate, and your grapes are near a HV point on the wire, you may end up with California Raisins.

Or so I've heard thru the grapevine

;-)

73,
Chip N1IR

5622. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 19:54:11 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <aunjqd$8m5ea$1@ID-140397.news.dfncis.de>
Source record: 128260
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

"Gareth Rowlands" <gareth@lightfox.demon.co.uk> wrote in message
news:20021229.193017.63@lightfox.demon.co.uk...
> Just a thought.
>
> Has anyone ever installed a mains isolating transformer or two
> and run the shack items off of that ? The idea being that those
> shack items can then have their chassis connected to an 'RF'
> garden-style earth rather than the household mains earth - there
> being no direct connection between the two earths.
>

Yes, a local does that. Only potential (no pun intended) problem is ensuring you can't readily contact anything grounded to the PME - such as the CH pipes or any equipment in the shack not connected via the isolating transformer.

73

Brian

5623. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 20:13:21 UTC
From: Ralph Mowery <rmowery@ctc.net>
Message-ID: <c9acnZzeuI9G-JKjXTWcqA@ctc.net>
Source record: 128267

> Finally, it goes without saying, practically all radiation emanates from
the
> antenna.
> ---
> Reg.

Unless you have an RCA.. It took a choke on my RCA power cord to kill off some 6 meter TVI. The set was hooked to cable TV but even with the TV coax unplugged and hooked to a vcr I still had tvi tuil I inserted a choke in the power line.

5624. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 20:19:34 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <aunlcl$2vq$1@sparta.btinternet.com>
Source record: 128262

"Roger Leone" wrote
> Let me see if I have this correct...I am saying I don't have any problems
> and you are telling me how to cure them?

==========

Roger, the intentions are good, perhaps a little misdirected or mistimed.
But I admit it is sometimes difficult to rein in one's horses. On other occasions you may be held down, your nose pinched and the pills forced down you.

As for my own experience, in more than 20 years living in densely populated areas, I have never had a TVI problem which was cured by inserting a choke in the transmitter feedline. I once had a case where inserting a choke in the TV antenna downlead solved the problem and another case where inserting chokes in a Hi-fi equipment speaker leads was sufficient.

In the 3rd and last case I did nothing on my side of the garden fence. The next door door neighbour's TV was returned to the dealer who discovered that on a previous repair he had fogotten to replace the lid on a screening box which housed the IF amplifier.

Finally, it goes without saying, practically all radiation emanates from the antenna.

Reg.

5625. Re: Type of Inductor for LP HP Filters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 20:22:53 UTC
From: Al <ABurzynski@nojunk.satx.rr.com>
Message-ID: <xQIP9.73666$Nz5.2114069@twister.austin.rr.com>
Source record: 128263

Tam, thanks for the reply. I worded my question poorly. I plan on using one filter at a time. If I listen to LW, then I will insert the LP filter. If I listen to the HF band, then I will remove the LP filter and insert the HP filter. In either case, I hope to block the AM band from causing interference.

Yes you described the molded inductors I had in mind. I did not realize their Q was so low. I was hoping to get a handful of these and experiment as to which works best. I'm not daring enough to calculate and wind my own. Is there some other source of inductors, ready made, that I could experiment with for this project?

Thank you.
Al
KA5JGV

"Tarmo Tammaru" <t-tammaru@home.com> wrote in message
news:PqWcnY43wNB40JKjXTWcow@comcast.com...

If by molded inductors you mean
> the things about the size of 1/2 W resistors, they are fairly low Q, and
> will result in a lossy filter. The inductors in your LPF will have lots of
> resistance. For receive, that might be OK. It would be cheaper and better
> to wind your own inductors on toroidal cores.

5626. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 20:26:07 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <ifku0vgn5s0m5hchrc0ahgg6f9v5rpqtku@4ax.com>
Source record: 128264
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

On Sun, 29 Dec 2002 19:30:17 GMT, gareth@lightfox.demon.co.uk (Gareth Rowlands) wrote:

>Just a thought.
>
>Has anyone ever installed a mains isolating transformer or two
>and run the shack items off of that ? The idea being that those
>shack items can then have their chassis connected to an 'RF'
>garden-style earth rather than the household mains earth - there
>being no direct connection between the two earths.
>
>Cheers,
>
>Gareth.

Hi Gareth,

I do this for my battery charger (a laboratory grade linear power supply) and run off batteries. However, I still connect the two grounds together, at the ground rod.

I am not particularly bothered with the prospects of lightning, not in the Pacific Northwest (we have the lowest incidence of lightning strike in the 48 states). However, I do still maintain lightning safe practices like a one point entry window for all RF and electronics which is tied to that same ground rod (less than 10' away).

Having an isolation transformer can be turned into an illusion of isolation very easily through the casual connection of one piece of equipment that has a ground path (somewhere). Do you have an outboard DSP that uses a "brick" power supply? Ground may be busted DC-wise, and yet it may be a conduit for noise from the Mains. How about a computer connection for packet? Does the computer have a modem attached to a phone line? How about one of those premium SWR meters with backlights and digital displays - again, plugged into some anonymous wall-wart power supply? The opportunity to violate the isolation is exceedingly easy to come by and simple to implement.

Another point, the isolation transformer is good at decoupling of RF and noise, but it is not an RF ground buster. You do not separate the two grounds, except by the DC and low AC path. At HF, it is a must that you have two good grounds otherwise the transformer turns into a very large coupling cap. By the nature of good transformer construction (which includes a Faraday shield), both grounds are figuratively strapped together for RF. The greater virtue of an

isolation transformer is it allows you to extend the "balanced" metaphor where it counts: at the source. It also lets you choose which ground as being superior for your situation.

73's
Richard Clark, KB7QHC

5627. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 20:33:02 UTC
From: richardharrison@webtv.net
Message-ID: <13978-3E0F5BFE-59@storefull-2312.public.lawson.webtv.net>
Source record: 128265

Gareth Rowlands wrote:
"Has anyone ever installed a mains isolating transformer or two and run the shack items off of that?"

Yes. Countless times. At several hundred commercial installations, the 230-volt mains fed a ferroresonant voltage regulator transformer (Sola) which supplied a 500-watt transmitter/receiver combination. Also, in one location, (8) 50-KW shortwave transmitters, each had its own Sola, 7-KV in and out, 50-Hz, 3-phase mains transformer.

Isolation was not used to provide separate earth connections for primary and secondary circuits. This is usually a bad idea. A unified ground connection is needed for safety and performance. Primary and secondary circuits were bonded in all cases.

Best regards, Richard Harrison, KB5WZI

5628. Rohn Tiltover baseplate wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 20:45:42 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3E0F5EF8.4010401@tampabay.rr.com>
Source record: 128266
Cross-posted to: rec.ham-radio.swap,rec.radio.amateur.antenna,rec.radio.amateur.swap,rec.radio.swap

i am looking for the BPH25G
this is the tilt over base for the rohn 25G tower
if anyone has one and wishes to sell it please email me with price and
condition
thanks

5629. Re: Type of Inductor for LP HP Filters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 21:32:23 UTC
From: richardharrison@webtv.net
Message-ID: <18918-3E0F69E7-400@storefull-2317.public.lawson.webtv.net>
Source record: 128268

Al, KA5JGV wrote:
"Is there some other source of inductors, ready-made, that I could experiment with for this project?"

Old radios, surplus vendors, etc. Low-pass and high-pass filters can come ready-made from coil suppliers such as: J.W. Miller, Barker & Williamson, R.L. Drake, The William Nye Co, Radio Shack, etc.

If your reception is fixed in location, set and forget "wave-traps" may be for you. Put a parallel-resonant circuit in series with your antenna input, or a series-resonant circuit in shunt across the input to to reject or bypass the offending signal. If you have more than one offending signal, multiple traps may be used. You probably don`t have many problem signals at one location.

Best rergards, Richard Harrison, KB5WZI

5630. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 21:59:18 UTC
From: k1bqt@aol.com
Message-ID: <20021229165918.01967.00000050@mb-df.aol.com>
Source record: 128169

>Let me see if I have this correct...I am saying I don't have any problems and you are telling me how to cure them?<

Like the boy scout who helped the little old lady across the street...only to discover she never wanted to go. Yup, that would be me!

Rick K1BQT

5631. Re: MFJ Apt. 2meter?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 22:20:20 UTC
From: Richard Velez <RickieV@hotmail.com>
Message-ID: <aunscj$8lp1i$1@ID-89515.news.dfncis.de>
Source record: 128170

Awesome,
I'm waiting for approval from the building management to put up the antenna on the roof. From my location, I'm hitting repeaters about 25 to 30 miles away, so I'm sure with the antenna on the roof, I'll go further, plus I could do packet better too.

Rickie
Just received my call on Dec 23, 02 - KC2KQQ

"Chuck/KE4ETH" <chuck_hawks@hotmailNOSPAMORAMA.com> wrote in message news:okZN9.76512$0v3.69922@news.bellsouth.net...
>
>
> "Richard Velez" <RickieV@hotmail.com> wrote in message
> news:au8c6u$5friu$1@ID-89515.news.dfncis.de...
> > J-Pole is the way to go. I'm using a HTX-202 handheld with a j-pole ant
> > outside my windows and I'm hitting repeaters that are about 25 miles away.
> > If I had it on the roof, I might do better.
> >
> > But, a J-Pole is cheap and awesome in service.
> >
> > Rickie
> >
> > "Barry Keippel" <bkeippel@excel.net> wrote in message
> > news:v0a524f453n2c6@corp.supernews.com...
> > > Does anyone know anything about MFJ's apartment antenna? It says it
> > attaches
> > > to window sills and covers 10m to 40m plus 2 and 6 meters by changing
> > coils.
> > > What it doesn't tell you is what kind of gain this thing has and what
> > kind
> > > of pattern it has. Does anyone have this antenna or know how good it
> > works?
> > > KA9MAT Barry
> > >
> > I use a twinlead J-Pole at about 30 feet, in a pvc pipe atop the TV antenna.
> > Hit repeaters 60 miles or so away. of course, I'm using a 25 watt rig.
> >
> > --
> > 73,
> > Chuck
> > KE4ETH
> > USA-NA

> Remove the obvious from Email.
>
>
>
>

5632. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 22:22:29 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <FAKP9.496081$%m4.136896@rwcrnsc52.ops.asp.att.net>
Source record: 128171
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

Would somebody please explain what a PME is. While you are at it, define ELCB.

"Anon" <paul@anon.com> wrote in message news:aIr2kvBxadD+EwKm@btinternet.com...
> Well is that so? Add yourself a bit of extra earthing and bond it to the
> PME - I think NOT!
>
> Both Peter Chadwick and I, who've had previous discussions and agreement
> on this would profoundly disagree with you!
>
> PME, where the neutral has a disconnection somewhere outside of your
> property has likelihood to pass huge amounts of current, and hence a
> rise in potential down and to any local earth you might provide or have
> in your home. It is a cheap but dangerous way to supposedly provide an
> electrical earth.
>
> The answer is to provide yourself with some good quality ELCB's (30ma if
> possible) at your shack and home. Provide yourself with a good quality
> earthing system which is tested to current standards and when this is
> done disconnect the crappy PME system.
>
> And yes I have seen the effects of a disconnected neutral with PME,
> which has resulted in persons receiving shocks as well as interference
> to electrical equipment
>
> From someone with Experience! Who has his PME disconnected and that's
> the way it's staying!
>
>
> In message <Aujmro$7cdq4$1@ID-140397.news.dfncis.de>, Brian Reay
> <brian.reay@bigfoot.com> writes
> > "Martin" <Martin@_NOSPAM_g1gyc.demon.co.uk> wrote in message
> >news:auiv4t$f10$1$8300dec7@news.demon.co.uk...
> >> Hi, and thank you for reading this.
> >> I am in stalling my radio station in to the small "box room" on the 2nd
> >> floor
> >> of the building and I have in the past not worried about a separate
earth
> >> for
> >> the station. But as this station is going to be a more permanent
> >arrangement
> >> than my other previous locations I want to make sure that :-

> >> 1) the station is safe electrically. (of course the supply earth will
be
> >> connected)
> >
> >If you have a PME system you also need to ensure the earth bonding point
> >where the supply enters your house is bonded by 10mm2 wire to your local
> >earth rod(s). This is especially important if your power comes via
overhead
> >cables. You can usually get to the bonding point next to the power
company
> >fuses.
> >
> >If not, under certain fault conditions a LOT of currrent can try to pass
via
> >your shack to earth. Not good.
> >
> >
> >> 2) protected form static (lightening etc).
> >
> >Static isn't too difficult- use DC grounded antennas on VHF/UHF and
provided
> >a 'bleed path' via a choke or even a resistor for HF antennas.
> >
> >You can get devices to protect against lightning but having seen the
effects
> >of lightning tests I don't think I would trust a cheap one. I always
> >disconnect.
> >
> >> 3) has a good RF performance. (this means low resistance earth
connection)
> >> 4) is as clear of EMC problems as possible.
> >
> >
> >These often go hand in hand.
> >
> >For VHF/UHF the problems are generally resolved by using good coax,
> >connectors, sensible antenna siting, and filtering (as required).
> >
> >For HF, given the likely problems of a earth lead impedance at HF, I
> >recommend an external ATU- either a SGC (or similar) automatic beast or a
> >remotely variable arrangement. The latter need not be overly complex- a
> >simple LC arrangement, L either switched with relays or a roller coaster
> >with a small motor (a cheap electric screwdriver is ideal) and a
motorised
> >capacitor(s). I can look out a circuit I did for someone else if you
like-
> >he want something cheap and cheerful and I think the motorisation cost
him
> >about ?10! I works very well, if I ever get around to HF myself I may

build
> >one.
> >
> >To get a good RF earth you can run out radials from the ATU, the more the
> >better. These should be bonded to an earth rod at the ATU. A buried
'earth
> >mat' is nice but not always practical.
> >
> >The above approach tends to keep the RF 'in' via the coax and equipment
> >casing until it get to the ATU which, as the latter is remote, minimises
> >coupling to other equipment.
> >
> >Once the RF gets to the antenna it may still cause EMC problems- but that
is
> >down to the fact it is radiating, which it is meant to do ;-) Then it is
> >down to filtering to minimise harmonics etc. and coupling into domestic
> >items.
> >
> >
> >73
> >
> >Brian
> >G8OSN
> >www.g8osn.org.uk
> >
> >
> >
> >
> >
> >
> >
>
> --
>

5633. QST---'Empire of the Air' on PBS 2NITE

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 22:33:13 UTC
From: fractenna@aol.com
Message-ID: <20021229173313.22930.00000271@mb-mf.aol.com>
Source record: 128172

Classic Ken Burns' documentary on DeForest-Armstrong-Sarnoff conflict. Still plays well after 12 years! On many PBS stations tonight.

73,
Chip N1IR

5634. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 22:50:21 UTC
From: JR <JR@nospam.com>
Message-ID: <fouu0vs3ialfpbkmlkkhledqtioboibljf@4ax.com>
Source record: 128173

Only warning on baluns is that you need to use them around the
designed impedances otherwise they become very lossy. I had a
1:1balun that I noticed would heat up and cause the VSWR to move with
as little as 200Watts in. I took it down and put a 2.5K ohm load on
the output and measured 6 ohms on the input with the ant analyzer
(almost all resistive). Then I switch to 50 ohm load and I got 50 ohm
input. So the frequency I was trying to use my off center fed dipole
on didn't present enough of a load for the balun. Once I got down to
500 ohms or so, did I see the losses start to drop off.
FYI
Jerry

5635. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 23:10:55 UTC
From: Dan Wood <mr.wood@no.spamthanks.bigfoot.com>
Message-ID: <ujLP9.7251$4k6.630242@wards>
Source record: 128174
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

CW <clinton.magers@attbi.com> wrote in message
news:FAKP9.496081$%m4.136896@rwcrnsc52.ops.asp.att.net...
> Would somebody please explain what a PME is. While you are at it, define
> ELCB.
>

I can try, but have no expertise in this field at all! I believe the
following to be true...

Back in the good old days, the supply companies provided 3 conductors: Live,
Neutral and Earth.

For some reason (probably cost?) they did away with the need for a separate
Earth conductor by bonding Neutral and Earth together at the substation. The
buried cable used to bring the supply to homes has 'gaps' in the insulation
along its length, effectively connecting Neutral back to 'mother earth' at
these points. Since there are many of these along the length of the cable,
we get the term 'multiple earthing'. Only when the supply reaches your house
does Neutral get split from Earth again....

PME is a problem for radio amateurs because they may connect additional
metalwork in the ground to their Earth systems. (And because of PME they are
effectively connecting it to Neutral too....) If a fault in the buried cable
develops that breaks the outer Neutral/Earth connection, but leaves the live
intact then all the current supplied after the break will have to find
another way back to the substation through the ground... If your earth
system is connected to the (now disconnected) Neutral conductor then hey
presto a fairly low impedance path is available... Your supply (and all your
neighbours downstream of the fault!) can now complete its circuit through
YOUR earth system. That's a heck of a lot of current (= fires and
explosions!)...

Another risk: Your earth has some resistance.... Voltage=Current x
Resistance.... So there will be a rise in potential around your earth
system. In other words it won't be at 'Earth' anymore... Which means that it
is a problem if you are, and you touch it...

So that's PME! It's late and I rambled... I wonder if *anyone* understands
me?

As for ELCB that's a bit easier. "Earth Leakage Circuit Breaker" - a device
that sits on a supply line and monitors the current in the Live and Neutral
lines. In theory these should be equal because all appliances etc. will form
a circuit between Live and Neutral. If the currents are not equal then some
of the live current is flowing elsewhere (to earth probably, hence an 'earth

leakage') - the ELCB detects this difference and shuts off the supply. Most domestic ones trip at 30mA and reasonably quickly, the idea being that if it is a person that the current is leaking through, they might live. In large installations with lots of PC's and stuff the capacitors connected between the supply and earth in the power supplies can have a cumulative effect, leaking enough current to trip ELCB's - you can get special ones with a higher trip rating for these kinds of situations.

Oops, I rambled again...

HTH (a bit!)

Dan.

5636. WTD: Antenna books - UK operator

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 23:15:23 UTC
From: Bads <pete@avara.co.uk>
Message-ID: <aunvgb$8mc$1@news7.svr.pol.co.uk>
Source record: 128175

Hello everyone,

I have been looking around various websites for used antenna design/theory books but I am coming up with nothing of real interest. So, if anyone in the UK has some antenna books that they don't need or use please drop me an email.

These will be of great use to me not only at home, but for the club and other training projects.

TIA

Pete
G0WXJ

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.427 / Virus Database: 240 - Release Date: 06/12/02

5637. Folded unipole for AM band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 23:31:12 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3e0f85c6$0$90233$ba620e4c@news.skynet.be>
Source record: 128176

Does anybody have technical infos about this kind of antenna (100% AM modulation - 1 Kw carrier - 1.485 KHz) particularly about transmission line connection ?

Any comment, link, experience, etc will be appreciated. TNX

73 de ON5MJ - Jacques.

5638. Re: Folded unipole for AM band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-29 23:36:45 UTC
From: ON5MJ <on5mjREMOVE@skynet.be>
Message-ID: <3e0f8712$0$90219$ba620e4c@news.skynet.be>
Source record: 128177

Sorry, frequency is 1.485 MHz

5639. FA: BARKER & WILLIAMSON HF HIGH POWER RF COILS

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 00:34:08 UTC
From: Info <infoREMOVE@mhtradio.com>
Message-ID: <3E0F9480.6B6AF25@mhtradio.com>
Source record: 128178

BARKER & WILLIAMSON HF HIGH POWER RF COILS

http://cgi.ebay.com/ws/eBayISAPI.dll?MfcISAPICommand=ViewItem&item=1948715816

5640. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 00:56:25 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3E0F99B9.4010000@cwis.net>
Source record: 128179

Glynn,
Why use one at all?
'Doc

5641. Re: info wire antenna 80mtr/1:4 balun

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 00:59:24 UTC
From: 'Doc <w5lz@cwis.net>
Message-ID: <3E0F9A6C.11BDCE9F@cwis.net>
Source record: 128180

Rollo,
Why would you want to use a 4:1 balun?
'Doc

5642. Re: MORE WINE!! Re: Insulated Antenna Wires and Californian Grapes.

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 01:20:21 UTC
From: Murray Neece <radioranch@qth.com>
Message-ID: <3E0F9F55.B582B6A6@qth.com>
Source record: 128181
Body handling: Binary attachment payload not displayed: radioranch.vcf

WHOA! UR gettin to hip-chip!! hi hi

Fractenna wrote:

> Of course, if you don't insulate, and your grapes are near a HV point on the
> wire, you may end up with California Raisins.
>
> Or so I've heard thru the grapevine
>
> ;-)
>
> 73,
> Chip N1IR

[One or more binary attachments are retained only in the source text.]

5643. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 01:38:57 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E0FA3B0.7050609@ieee.org>
Source record: 128182

Roger Leone wrote:
> My balun-less loop exhibits no RFI or RF in the shack, even running close to
> a KW output power. So I don't have a problem for a balun to cure, I guess.

Roger, I'll bet you $1000 I can measure some common-mode current on your
feedline. "No RF in the shack" is a mighty broad statement.
--
cheers, CAM http://www.qsl.net/w5dxp

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

5644. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 02:00:17 UTC
From: Dave <davenpat@btopenworld.com>
Message-ID: <auo9bg$948$3@helle.btinternet.com>
Source record: 128183
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

"Dan Wood" <mr.wood@no.spamthanks.bigfoot.com> wrote in message
news:ujLP9.7251$4k6.630242@wards...
>
> CW <clinton.magers@attbi.com> wrote in message
> news:FAKP9.496081$%m4.136896@rwcrnsc52.ops.asp.att.net...
> > Would somebody please explain what a PME is. While you are at it, define
> > ELCB.
> >
>
> I can try, but have no expertise in this field at all! I believe the
> following to be true...
>
> Back in the good old days, the supply companies provided 3 conductors:
Live,
> Neutral and Earth.
>
> For some reason (probably cost?) they did away with the need for a
separate
> Earth conductor by bonding Neutral and Earth together at the substation.
The
> buried cable used to bring the supply to homes has 'gaps' in the
insulation
> along its length, effectively connecting Neutral back to 'mother earth' at
> these points. Since there are many of these along the length of the cable,
> we get the term 'multiple earthing'. Only when the supply reaches your
house
> does Neutral get split from Earth again....
>
> PME is a problem for radio amateurs because they may connect additional
> metalwork in the ground to their Earth systems. (And because of PME they
are
> effectively connecting it to Neutral too....) If a fault in the buried
cable
> develops that breaks the outer Neutral/Earth connection, but leaves the
live
> intact then all the current supplied after the break will have to find
> another way back to the substation through the ground... If your earth
> system is connected to the (now disconnected) Neutral conductor then hey
> presto a fairly low impedance path is available... Your supply (and all
your
> neighbours downstream of the fault!) can now complete its circuit through
> YOUR earth system. That's a heck of a lot of current (= fires and
> explosions!)...

>
> Another risk: Your earth has some resistance.... Voltage=Current x
> Resistance.... So there will be a rise in potential around your earth
> system. In other words it won't be at 'Earth' anymore... Which means that
it
> is a problem if you are, and you touch it...
>
> So that's PME! It's late and I rambled... I wonder if *anyone* understands
> me?
>
>
> As for ELCB that's a bit easier. "Earth Leakage Circuit Breaker" - a
device
> that sits on a supply line and monitors the current in the Live and
Neutral
> lines. In theory these should be equal because all appliances etc. will
form
> a circuit between Live and Neutral. If the currents are not equal then
some
> of the live current is flowing elsewhere (to earth probably, hence an
'earth
> leakage') - the ELCB detects this difference and shuts off the supply.
Most
> domestic ones trip at 30mA and reasonably quickly, the idea being that if
it
> is a person that the current is leaking through, they might live. In large
> installations with lots of PC's and stuff the capacitors connected between
> the supply and earth in the power supplies can have a cumulative effect,
> leaking enough current to trip ELCB's - you can get special ones with a
> higher trip rating for these kinds of situations.
>
> Oops, I rambled again...

I am not that sure that you did :-))

You have come up with the clearest explanation of PME v radio earth that I
have ever read.
I have always wondered why a PME supply could fail so.
Now I know.

Many thanks

DE G6 KHP

Dave

5645. Re: FT-920 AND SB-220 ?!

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 02:03:27 UTC
From: Dan/W4NTI <w4nti@NOSPAMmindspring.com>
Message-ID: <auo9h0$7p7$1@slb3.atl.mindspring.net>
Source record: 128184

There is no need for a 'external antenna tuner' between the 920 and the 220.
The SB 220 has tuned input on 80/40/20/15 and ten.

If you keep the output of the 920 to less than 120 watts you wont really
need the ALC line to be hooked up.

The SB-220 has a high current antenna relay circuit. Read the
specifications on the rig and the amp to determine if they are compatable.

If they are not...Just build a external keying relay. Or hook a foot switch
to the AMP. Whatever works for you.

Dan/W4NTI

"G. Beat" <gregory.beat.nospam@spam.attbi.com> wrote in message
news:Fk6P9.138078$qF3.10448@sccrnsc04...
> Sam,
>
> Since the TS-920 is a modern rig, you should check out this web site for
> "updating" you SB-220
>
> http://www.harbachelectronics.com/
>
> http://www.vcnet.com/measures/sb-220.html
>
> Greg
> W9GB
>
> "news.verizon.net" <sam.krusnsberg@verizon.net> wrote in message
> news:f12O9.102776$4W1.75768@nwrddc02.gnilink.net...
> > How should the 920 and 220 be connected together ? should I use an
> extermal
> > antenna tuner between the 920 and 220 and not use the internal auto
tuner
> in
> > the 920 ? also what type of coax and length between the two ? Thanks,
Sam
> > KG4HEB, callingdx@yahoo.com
> >
> >
>
>

5646. Maximum separation length for AH-4 tuner?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 02:59:40 UTC
From: "Ken Coghill III, WB4ZOH" <wb4zoh@arrl.net>
Message-ID: <3E0FB69C.2000308@arrl.net>
Source record: 128185

Does anyone have documentation available on the maximum cable length
separation for the ICOM AH-4 antenna tune?

73 es Happy New Year
--
Ken Coghill III, WB4ZOH
"Without music life would be a mistake" - - Nietzsche

5647. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 03:37:11 UTC
From: Roger Leone <arleoneNoSpam@inreach.com>
Message-ID: <64QP9.1482$%m5.340563036@news.inreach.com>
Source record: 128186

> Roger, I'll bet you $1000 I can measure some common-mode current on your
> feedline. "No RF in the shack" is a mighty broad statement.
> --
> cheers, CAM http://www.qsl.net/w5dxp

Tell me why I should care. I see no evidence whatsoever of RF the shack, like your lip burns or even less painfully. I can run my laptop (Compaq Armada 7400) on the internet doing downloads while running a KW (Johnson Thunderbolt) on my 40 meter loop. I did that this morning as a test since Rick Littlefield mentioned his problem with his computer.

I couldn't care less whether or not you could measure common mode current on my feedline. If there is any, it might be measurable but it is also insignificant and totally unrelated to the results I get using the antenna. I know you don't like hearing this, but the antenna works quite well in spite of your disbelief.

Roger

5648. Balun or No Balun ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 04:18:28 UTC
From: Keith Schreiber <keith.schreiber2@verizon.net>
Message-ID: <oOPP9.23502$Jb.5940@nwrddc02.gnilink.net>
Source record: 128187

The various pros and cons being voiced on this subject remind me of something my grandfather said in the late 60s regarding "hippies" (remember them ?) He said......

"Long hair.....short hair.....what the hell's the difference once the head's blowed off."

At the time, I didn't realize how profound that statement really was - I thought it was just some comment on the (at the time current) Vietnam war.

Hope this helps!

W8KTH

5649. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 04:58:01 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <tnQP9.556039$QZ.80743@sccrnsc02>
Source record: 128188
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

Good explanation. Thank you.
--

CW
KC7NOD

"Dan Wood" <mr.wood@no.spamthanks.bigfoot.com> wrote in message
news:ujLP9.7251$4k6.630242@wards...
>
> CW <clinton.magers@attbi.com> wrote in message
> news:FAKP9.496081$%m4.136896@rwcrnsc52.ops.asp.att.net...
> > Would somebody please explain what a PME is. While you are at it, define
> > ELCB.
> >
>
> I can try, but have no expertise in this field at all! I believe the
> following to be true...
>
> Back in the good old days, the supply companies provided 3 conductors:
Live,
> Neutral and Earth.
>
> For some reason (probably cost?) they did away with the need for a
separate
> Earth conductor by bonding Neutral and Earth together at the substation.
The
> buried cable used to bring the supply to homes has 'gaps' in the
insulation
> along its length, effectively connecting Neutral back to 'mother earth' at
> these points. Since there are many of these along the length of the cable,
> we get the term 'multiple earthing'. Only when the supply reaches your
house
> does Neutral get split from Earth again....
>
> PME is a problem for radio amateurs because they may connect additional
> metalwork in the ground to their Earth systems. (And because of PME they
are
> effectively connecting it to Neutral too....) If a fault in the buried
cable
> develops that breaks the outer Neutral/Earth connection, but leaves the
live
> intact then all the current supplied after the break will have to find
> another way back to the substation through the ground... If your earth
> system is connected to the (now disconnected) Neutral conductor then hey

> presto a fairly low impedance path is available... Your supply (and all
your
> neighbours downstream of the fault!) can now complete its circuit through
> YOUR earth system. That's a heck of a lot of current (= fires and
> explosions!)...
>
> Another risk: Your earth has some resistance.... Voltage=Current x
> Resistance.... So there will be a rise in potential around your earth
> system. In other words it won't be at 'Earth' anymore... Which means that
it
> is a problem if you are, and you touch it...
>
> So that's PME! It's late and I rambled... I wonder if *anyone* understands
> me?
>
>
> As for ELCB that's a bit easier. "Earth Leakage Circuit Breaker" - a
device
> that sits on a supply line and monitors the current in the Live and
Neutral
> lines. In theory these should be equal because all appliances etc. will
form
> a circuit between Live and Neutral. If the currents are not equal then
some
> of the live current is flowing elsewhere (to earth probably, hence an
'earth
> leakage') - the ELCB detects this difference and shuts off the supply.
Most
> domestic ones trip at 30mA and reasonably quickly, the idea being that if
it
> is a person that the current is leaking through, they might live. In large
> installations with lots of PC's and stuff the capacitors connected between
> the supply and earth in the power supplies can have a cumulative effect,
> leaking enough current to trip ELCB's - you can get special ones with a
> higher trip rating for these kinds of situations.
>
> Oops, I rambled again...
>
> HTH (a bit!)
>
> Dan.
>
>
>
>

5650. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 08:04:17 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <auoujb$919mc$1@ID-140397.news.dfncis.de>
Source record: 128189
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

"CW" <clinton.magers@attbi.com> wrote in message
news:FAKP9.496081$%m4.136896@rwcrnsc52.ops.asp.att.net...
> Would somebody please explain what a PME is. While you are at it, define
> ELCB.
>
PME = Protective Multiple Earth.

At one time the electricity supply companies used to run 3 cables to each house, L, N & E. About 50 years back (I'm not sure of the exact date) they reduced this to 2 , L & N.

To provide a local 'earth' facility they bond the N conductor to all the pipe work (water and gas etc) at the point where the supply enters the house, in the box that goes from the 1" dia "coaxial style" cable (which is not coax, just has a similar appearance) to the two 'tails' that go to the input of the meter.

There should be a notice on such installations.

ELCB = Earth Leakage Circuit Breaker

A device the detects an imbalance between the currents in the L & N and, if the imbalance exceeds a preset limit, turns off the supply. The limit is typically 30mA in a domestic environment. About 3x the benchmark lethal level.

73

Brian

--
Brian Reay
www.g8osn.org.uk

5651. test post - please ignore

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 08:22:26 UTC
From: David Gan <hmmdoggieNOSPM@yahoo.com>
Message-ID: <6nTP9.500252$P31.161439@rwcrnsc53>
Source record: 128190

test

5652. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 10:08:33 UTC
From: 'Doc <ltdoc@yahoo.com>
Message-ID: <3E101B21.30400@yahoo.com>
Source record: 128191

Ken,
Are there any trees where you go camping?
'Doc

5653. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 10:42:33 UTC
From: David Honey <David.Honey@nospam.thanks.com>
Message-ID: <3E102319.1080002@nospam.thanks.com>
Source record: 128192
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

r.dring wrote:

> Hello Martin are you in the UK or some other part of the world. There are 3
> items of elevated earthing that need to be addressed. Any mains operated RF
> equipment must have an efective electrical earth, which is not the same as
> an RF earth. Any RF earth lead, dropping from an elevated shack, could be a
> significant portion of a wavelength, so you really ought to decide what
> bands you are expecting to work. It is not difficult to solve once you know
> the pitfalls.
> If you are in the UK have a look at your electricity meter instalation, and
> see if there is a label marked PME or Protective Multiple Earthing, if you
> are in a high rise block you may need to make further inquiries as many were
> wired in that way.
> Regards Ray G0BXG
> "Martin" <Martin@_NOSPAM_g1gyc.demon.co.uk> wrote in message
> news:auiv4t$f10$1$8300dec7@news.demon.co.uk...

Thanks for bringing that one up - I wondered when someone would.
Even with the shortest path from a shack to a ground point
outside, you would probably have at least 5m of wire.
At 30MHz, this would be half a wavelength and appear to be
an open-circuit at the shack if it was a perfect RF earth
at the other end. I believe that MFJ make a tunable RF earth
but I have no experience of using such a thing.

I'm in a similar situation. My shack is upstairs in the house.
Currently, my set-up is that I connect the chassis of equipment
to mains earth as an electrical safety but with cable that is
wound through a ferrite ring to reduce the possibility of
RF getting back into the mains. Secondly, all of my antennas
are balanced and fed via baluns. Also, each feeder has a number
of turns in the loft before it drops down so that it acts as
an RF current choke to try and keep RF out of the shack.
I haven't had any problems with RF in the shack or RF
getting into mains wiring.

I have heard of others that take this further and use an
RF earth to connect to the coax screen at the antenna
end, connecting to the balun close to that point, then use
ladder feed from the balun to the antenna. Obviously, this
means that you have a vertical ladder feed from ground level
upwards and this might be considered an eyesore by the XYL.
Plus you have the issues mentioned by others of disconecting
mains earth in PME situations as mentioned in detail by other

posters. For these reasons, and the fact I haven't had a problem with RF in the shack, I didn't do that.

If you are using unbalanced antennas such as a vertical or end-fed, then having a good RF earth close to the antenna is important. However, most sources suggest that a few copper rods is not an effective RF earth (unless you're right by the sea where ground conductivity is very high) and they suggest a lot of buried radials. Some people even bury chicken-wire mesh under the lawn so that they have a large surface area to form an effective ground plane.

Hope that helps,
David.

5654. Site for learning Antennas, Transmission Lines, etc

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 11:02:02 UTC
From: u127@hotmail.com
Message-ID: <299f8ff8.0212300302.32337fe@posting.google.com>
Source record: 128193

Checkout http://www.amanogawa.com/

Powerful JAVA applets for learning the properties of Antennas,
Electromagnetic Waves, Transmission Lines and EMI.

Jan

5655. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 14:42:56 UTC
From: richardharrison@webtv.net
Message-ID: <20898-3E105B70-84@storefull-2311.public.lawson.webtv.net>
Source record: 128196

David Honey wrote:
"---you probably have at least 5m of wire. At 30MHz, this would be half a wavelength and appear to be an open-circuit at the shack if it was a perfect RF earth at the other end."

That would happen near 15 MHz were the earth return actually connected to that "perfect earth". The 5m wire would be 1/4-wavelength at 20m, and invert the impedance found at the far end. At the shack end, the earth impedance would be high but not infinite because of radiation resistance. Some of the r-f on a single wire radiates.

Near 30 MHz, the 5m earth return wire would be nearly 1/2-wavelength at 10m and try to repeat the impedance of that "perfect RF earth at the other end" in the shack. The problem of radiation and radiation resistance is larger for a 1/2-wavelength of wire than for 1/4-wavelength of wire, of course, given the same current in the wire.

Depending upon the rest of the antenna system, other than the earth return, radiation from the earth return may be advantageous or detrimental to the desired antenna function.

Best regards, Richard Harrison, KB5WZI

5656. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 15:00:46 UTC
From: cprstn54zz@att.net
Message-ID: <3e105d1b.172413953@news-server.optonline.net>
Source record: 128194

On Mon, 30 Dec 2002 04:08:33 -0600, 'Doc <ltdoc@yahoo.com> wrote:
>Ken,
> Are there any trees where you go camping?

Generally, yes. Do you have a nice tree solution?

However, I can't rely on the trees. In CT state parks, it is verboten
to tie anything to a tree. State-employed droids daily remove
anything [they can see]. Also, there are no trees on beaches.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

5657. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 15:06:36 UTC
From: Jon H <jon.p.harrisDEADWOOD@bt.com>
Message-ID: <aupnq7dfa1@pheidippides.axion.bt.co.uk>
Source record: 128195
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

"Dave" <davenpat@btopenworld.com> wrote in message
news:auo9bg$948$3@helle.btinternet.com...

> > neighbours downstream of the fault!) can now complete its circuit
through
> > YOUR earth system. That's a heck of a lot of current (= fires and
> > explosions!)...

Worth fusing the earth connection?
;-)

JH

5658. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 15:25:42 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E106576.9090608@ieee.org>
Source record: 128198

Roger Leone wrote:
>>Roger, I'll bet you $1000 I can measure some common-mode current on your
>>feedline. "No RF in the shack" is a mighty broad statement.
>
> Tell me why I should care.

So that you can avoid making false statements on r.r.a.a?

> I couldn't care less whether or not you could measure common mode current on
> my feedline.

You don't care whether your statement about "no RF in the shack" is
true or false?
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5659. Re: Type of Inductor for LP HP Filters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 15:29:25 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <GUqdnWqvuqMk-I2jXTWcog@comcast.com>
Source record: 128197

Al,

I looked at the JWMiller Chokes, and they are not that bad. Almost certainly OK for the HPF. I have some concern on the LPF, but since the design is so easy, and the inductors about a buck a piece, give it a try. Without going through the analysis, I think the effect of low Q inductors is to add to the passband loss of the LPF, and reduce the amount of rejection in the HPF. You can make up a rule of thumb approximation here, which is that the sum of the resistances of the LPF inductors should be small compared to 50 ohms. (If you had 5 inductors of 10 Ohms each, you would have 6db loss at DC, assuming a 50 Ohm receiver input).

If the program allows it, put the resistance values in also. For example, if you have a 220 uH inductor that has 11 ohms resistance, put both the L=220 and the R=11 into your model. You might also want to look at the Miller 52XX series for the LPF, they are bigger, but have much less resistance. The RF resistance is not the same as the DC, but at 500 KHz, it will be close .

There is not a whole lot of choice in ready made inductors. Most of the ones you see in catalogs are nanohenries, not microhenries. Others get very expensive. You might want to check out what Mouser and Digikey have

I will have to download " Elsie ", sounds like it would be useful.

Tam?WB2TT
"Al" <ABurzynski@nojunk.satx.rr.com> wrote in message
news:xQIP9.73666$Nz5.2114069@twister.austin.rr.com...
> Tam, thanks for the reply. I worded my question poorly. I plan on using
one
> filter at a time. If I listen to LW, then I will insert the LP filter. If
I
> listen to the HF band, then I will remove the LP filter and insert the HP
> filter. In either case, I hope to block the AM band from causing
> interference.
>
> Yes you described the molded inductors I had in mind. I did not realize
> their Q was so low. I was hoping to get a handful of these and experiment
as
> to which works best. I'm not daring enough to calculate and wind my own.
Is
> there some other source of inductors, ready made, that I could experiment
> with for this project?
>
> Thank you.
> Al
> KA5JGV

>
>
> "Tarmo Tammaru" <t-tammaru@home.com> wrote in message
> news:PqWcnY43wNB40JKjXTWcow@comcast.com...
>
> If by molded inductors you mean
> > the things about the size of 1/2 W resistors, they are fairly low Q, and
> > will result in a lossy filter. The inductors in your LPF will have lots
of
> > resistance. For receive, that might be OK. It would be cheaper and
better
> > to wind your own inductors on toroidal cores.
>
>

5660. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 15:53:04 UTC
From: Roger Leone <arleoneNoSpam@inreach.com>
Message-ID: <0S_P9.1496$7M6.346237050@news.inreach.com>
Source record: 128202

Oh, so when you run out of intellectual ammunition, you have nothing left
but to call me a liar.

I guess our converstion is over.

Roger

5661. Re: Folded unipole for AM band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 16:03:00 UTC
From: richardharrison@webtv.net
Message-ID: <16190-3E106E34-203@storefull-2314.public.lawson.webtv.net>
Source record: 128200

Jacques, ON5MJ wrote:
"-1485 KHz) particularly about transmission line connection?"

A folded unipole is 1/2 a folded dipole. The ground system of radials produces the missing half of the dipole by production of a virtual image of the 1/4-wave in the air.

Impedance at the drivepoint is half that for a dipole of similar construction. For a simple dipole, the radiation resistance at the feedpoint is near 74 ohms and the simple 1/4-wave vertical has a radiation resistance near 37 ohms.

For a simple folded dipole, the feedpoint resistance is near 300 ohms, and the simple folded unipole has a feedpoint resistance near 150 ohms.

At the feedpoint of the folded monopole, both ends of the skinny loop could be insulated from the earth and seoarate 75-ohm coax cables could be used to drive each end with their shields connected together and connected to the antenna ground system.

It is cheaper and easier to use a single coax to match the folded monopole through an L, T, or pi network.

The advantage if a matching network is required, may be with a simple 1/4-wave vertical. The transformation ratio between 50-ohm coax and a 37-ohm antenna is less than 75-ohm coax and a 150-ohm antenna. Yes, there are games to play with the sizes of conductors used in the unipole and adjustments which can be made in its feedpoint and overall length, but the above ground structure of the ordinary 1/4-wave vertical is simpler and cheaper.

Advantage of the folded unipole or shunt-fed tower is a directly grounded section. This helps lightning protection and gives a side for departure of lighting and other cables without needing chokes or other isolation devices. Also, skeletal coax lines may be a nearer match to the folded tower than to a simple tower and thus require less coil to make a match.

Folded and straight towers have near identical radiation characteristics. Going with the majority of users will likely be less trouble for you, if you are erecting a new tower to radiate on 1485 KHz. Set it on a base insulator. If you are taking advantage of a grounded-base tower which is already up, then shunt feed it or connect a wire to its top to make it a folded unipole. It will probably reguire the installation of a good radial (120) 1/4-wavelength, system as its other use was probably as a support for VHF or UHF antennas which required no grounding system.

Best regards, Richard Harrison, KB5WZI

5662. Re: Type of Inductor for LP HP Filters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 16:12:19 UTC
From: CW <clinton.magers@attbi.com>
Message-ID: <Df_P9.500960$WL3.129450@rwcrnsc54>
Source record: 128199

With the same goal in mind, eliminating the AMBCB interference, I used a
bandstop filter. Only need one and don't have to switch it. These can be
bought ready made if you don't want to build one.
"Al" <ABurzynski@nojunk.satx.rr.com> wrote in message
news:xQIP9.73666$Nz5.2114069@twister.austin.rr.com...
> Tam, thanks for the reply. I worded my question poorly. I plan on using
one
> filter at a time. If I listen to LW, then I will insert the LP filter. If
I
> listen to the HF band, then I will remove the LP filter and insert the HP
> filter. In either case, I hope to block the AM band from causing
> interference.
>
> Yes you described the molded inductors I had in mind. I did not realize
> their Q was so low. I was hoping to get a handful of these and experiment
as
> to which works best. I'm not daring enough to calculate and wind my own.
Is
> there some other source of inductors, ready made, that I could experiment
> with for this project?
>
> Thank you.
> Al
> KA5JGV
>
>
> "Tarmo Tammaru" <t-tammaru@home.com> wrote in message
> news:PqWcnY43wNB40JKjXTWcow@comcast.com...
>
> If by molded inductors you mean
> > the things about the size of 1/2 W resistors, they are fairly low Q, and
> > will result in a lossy filter. The inductors in your LPF will have lots
of
> > resistance. For receive, that might be OK. It would be cheaper and
better
> > to wind your own inductors on toroidal cores.
>
>

5663. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 16:28:04 UTC
From: richardharrison@webtv.net
Message-ID: <16192-3E107414-33@storefull-2314.public.lawson.webtv.net>
Source record: 128201

Ken, KC2JDY wrote:
"Also, there are no trees on beaches."

No palms in CT?

At the beach, a vertical may work well because an excellent ground is available. A loaded short whip may even give good results when worked against the sea for an earth return. Jost a few blocks from the sea, the earth return may be poor however.

In the state park, you may need bamboo or fiberglass poles to erect your dipole as high as possible.

Best regards, Richard Harrison, KB5WZI

5664. Re: Balun or No Balun ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 16:59:27 UTC
From: richardharrison@webtv.net
Message-ID: <20896-3E107B6F-553@storefull-2311.public.lawson.webtv.net>
Source record: 128203

Keith Schreiber wrote:
"Long hair.....short hair.....what the hell`s the difference once the head`s blown off?"

Light writer`s point doesn`t apply to baluns, just a hole in the lip, no decapitation.

Try your antenna without a balun if you want to. You may only get a critic`s comments and your antenna may work fine. If it doesn`t, then you may try a balun to see if it makes your antenna work as you desire.

Hell beer is fine but dunkel is mehr besser.

Best regards, Richard Harrison, KB5WZI

5665. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 17:20:05 UTC
From: 'Doc <ltdoc@yahoo.com>
Message-ID: <3E108045.9000809@yahoo.com>
Source record: 128204

Ken,
I might have a solution. Leave the pole at
home. Take a ball of twine instead. Throw
ball of twine over tree limb, hoist antenna off
ground. If a 'droid' shows up, growl. Then
tell the droid that by interfereing with your
portable emergency operations station he/she is
crossing jurisdiction lines in to an area that
only the FCC has authority in. Cite PL-97-259
which deals with such interference and that
there is a federal preemption, and that he/she
needs to take his Smokey Bear bunns on down the
road. (If the 'droid' is female, I would suggest
changing 'bunns' to a less sexist portion of the
human anatomy.)...
If that doesn't work, try begging...
'Doc

5666. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 17:32:51 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E108343.3010901@ieee.org>
Source record: 128206
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

David Honey wrote:
> Even with the shortest path from a shack to a ground point
> outside, you would probably have at least 5m of wire.
> At 30MHz, this would be half a wavelength and appear to be
> an open-circuit at the shack if it was a perfect RF earth
> at the other end.

Seems that 1/2WL would make a perfect ground wire. Seems that
an even multiple of 1/4WL is what you are talking about.
5m of wire on 20m would be a worst case ground.
--
cheers, CAM http://www.qsl.net/w5dxp

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5667. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 17:38:06 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E10847E.6040401@ieee.org>
Source record: 128205

Roger Leone wrote:
> Oh, so when you run out of intellectual ammunition, you have nothing left
> but to call me a liar.

All I asked you to do is to prove your assertion that there is
"no RF in the shack". I didn't say you were lying. If what you
said is true, you could win the $1000 bet I made with you. Was
what you said true?
--
cheers, CAM http://www.qsl.net/w5dxp

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5668. MAXX automatic antenna tuners

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 17:41:32 UTC
From: G Blair <gblair@sympatico.ca>
Message-ID: <pan.2002.12.30.17.41.31.747751@sympatico.ca>
Source record: 128207

Anyone used the MAXX antomatic antenna tuners, http://www.maxx-com.com/?

How well do they work?

If you have no first hand experience or otherwise know nothing about this tuner, please do not respond to this post.

5669. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 18:00:35 UTC
From: "Fred Hambrecht Sr." <w4jle@charter.net>
Message-ID: <v112e1lkf1kt4b@corp.supernews.com>
Source record: 128208

I will take that bet CAM, I have no balun and no RF in the shack.

But then again my shack is in a screen room and I have no transmitter.
Please forward the $1000 to my payameigo account.

With all good wishes
Fred W4JLE

--
For Admiral Poindexter's folks:
Bomb, anthrax, attack, acid, hijack, skyjack
sniper, plutonium, nuclear, Big Mac, jihad
Democrats, terror, Howdy Doody, Oprah

"Those that sacrifice freedom for security deserve neither"

"OC_CAM's Razor" <Cecil.A.Moore@ieee.org> wrote in message
news:3E10847E.6040401@ieee.org...
> Roger Leone wrote:
> > Oh, so when you run out of intellectual ammunition, you have nothing
left
> > but to call me a liar.
>
> All I asked you to do is to prove your assertion that there is
> "no RF in the shack". I didn't say you were lying. If what you
> said is true, you could win the $1000 bet I made with you. Was
> what you said true?
> --
> cheers, CAM http://www.qsl.net/w5dxp
>
>
>
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> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5670. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 18:03:43 UTC
From: Dan Wood <mr.wood@no.spamthanks.bigfoot.com>
Message-ID: <tV%P9.7373$4k6.652890@wards>
Source record: 128209
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

Jon H <jon.p.harrisDEADWOOD@bt.com> wrote in message
news:aupnq7dfa1@pheidippides.axion.bt.co.uk...
> "Dave" <davenpat@btopenworld.com> wrote in message
> news:auo9bg$948$3@helle.btinternet.com...
>
> > > neighbours downstream of the fault!) can now complete its circuit
> through
> > > YOUR earth system. That's a heck of a lot of current (= fires and
> > > explosions!)...
>
> Worth fusing the earth connection?
> ;-)
>
But would *you* want to risk replacing it when it blows? - could be quite a
difference in potential on each side of it! :)

5671. Thanks GAP

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 18:45:28 UTC
From: K�HB <k�hb@arrl.DOTORG>
Message-ID: <cv0Q9.4570$9N5.457866@newsread2.prod.itd.earthlink.net>
Source record: 128210
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.antenna

During the recent ARRL 160M contest the SWR on my several-year-old GAP antenna suddenly went screwy. Turned out I'd scorched the capacitive compensating module at the top of the antenna. GAP sent a replacement FREE (including shipping) in time for me to compete in the Stew Perry Topband Challenge.

Thanks, GAP.

��� 73, de Hans, K0HB
--
Help support youth involved in Amateur Radio.
http://www.mnyarc.org
http://www.k0bsa.org

5672. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 18:47:13 UTC
From: RVMJ <RVMJ@Safety-&-Arming.Clara.co.uk>
Message-ID: <u1511vk84bcqd1l8cvkou95bk3ctio502m@4ax.com>
Source record: 128211
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

OC_CAM's Razor wrote:

>Seems that 1/2WL would make a perfect ground wire. Seems that
>an even multiple of 1/4WL is what you are talking about.
>5m of wire on 20m would be a worst case ground.

If you want to get RF out of the shack, use a quarter-wave
counterpoise, adjusted in length for maximum effect.

Half a wavelength will merely keep the volts where they are, just
where you *don't* want them.....

HTH

--
from
RVMJ
Remove Safety-&-Arming before e-mailing

5673. Re: MAXX automatic antenna tuners

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 19:05:59 UTC
From: 'Doc <ltdoc@yahoo.com>
Message-ID: <3E109917.8060201@yahoo.com>
Source record: 128212

G Blair,
I don't think anyone has any first hand experience with
how ~well~ they work! This is a re-run of a scam pulled
in the 70's or 80's. Have I ever had hands-on experience
with them? Nope, but I certainly remember the earlier
scam. Almost the exact same ad copy too...
'Doc

5674. antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 19:08:12 UTC
From: zeti@volcanomail.com
Message-ID: <b212035c.0212301108.458782e8@posting.google.com>
Source record: 128213

hello guys,

what would be a typical FM-radio-station-antenna-height? I assume it will be dependent on budget and terrain. Can anyone also say the same parameter for a AM (SW) radio station, also if possible for UHF-tv-station.? To be more general, I would appreciate info about any type of comm-service antenna-height.

best regards,

zender

5675. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 20:05:13 UTC
From: richardharrison@webtv.net
Message-ID: <28849-3E10A6F9-3@storefull-2315.public.lawson.webtv.net>
Source record: 128214

Zender Swonssen wrote:
"What would be a typical FM-radio-station-antenna height?"

About 300 meters or 1000 feet. The distance in miles to the radio horizon from 1000 feet is:

sqrt of 2000 or 45 miles.

The formula is: D = sqrt 2H

The formula is based on normal propagation over a smooth earth. This is "line-of-sight" propagation for VHF, UHF, and higher frequencies. It works for lower frequencies but these have other options besides "line of sight" propagation.

HF waves are subject to reflection from the ionosphere to great distances beyond "line-of-sight". Medium and lower frequencies are also subject to following the earth`s curvature for propagation over long distances. The sending and receiving antennas don`t need to be able to "see" each other.

For "line-of-sight communications, if the sender and receiver can "see" the same grazing point, they can "see" each other and may be able to communicate. To extend the range, the heights of either the sending or receiving antenna may be increased.

Best regards, Richard Harroison, KB5WZI

5676. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 20:24:55 UTC
From: richardharrison@webtv.net
Message-ID: <28850-3E10AB97-4@storefull-2315.public.lawson.webtv.net>
Source record: 128216

RVMJ wrote:
"Half a wavelength will merely keep the volts where they are, just where you don`t want them."

Recall that a 1/2-wavelength repeats impedances from end-to-end.

Put one end to a good ground, and that good ground is repeated at the opposite end except for radiation from the wire.

I think Cecil was proposing ground-plane wires, 1/4-wave long and open-circuit on their far ends, which invert the open-circuits back at the shack end and thus produce a low-impedance current path at the shack for the operating frequency, just as they are used with a ground-plane antenna.

Best regards, Richard Harrison, KB5WZi

5677. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 20:31:25 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E10ACD9.3040601@attbi.com>
Source record: 128215

GUYS !!! You have reached the nit-picking stage! Is it time to wrap this discussion up?

You can put a balun or an unun or a current balun [RF Choke] on the antenna and feed lines all you want and you will ALWAYS have RF in the shack! ALWAYS! On 160, 80 and 40 meters you are sitting in the near field of the antenna and that couples RF currents into everything. On 30 through 10 meters you are sitting in the transition zone of the RF fields and have RF in the shack. On 20 meters and running 1 KW the power lines in my house show significant RF currents and the antenna is 70 feet away and 50 feet high! Maybe on 6 through whatever IF the antennas are far away and high you will be in the far field.

That's why the FCC has imposed RF Exposure limits on us!!

If it solves a problem use it!! If there's no problem why make one?

Let's change the subject.

Deacon Dave, W1MCE

OC_CAM's Razor wrote:
> Roger Leone wrote:
>
>>> Roger, I'll bet you $1000 I can measure some common-mode current on your
>>> feedline. "No RF in the shack" is a mighty broad statement.
>>
>>
>> Tell me why I should care.
>
>
> So that you can avoid making false statements on r.r.a.a?
>
>> I couldn't care less whether or not you could measure common mode
>> current on
>> my feedline.
>
>
> You don't care whether your statement about "no RF in the shack" is
> true or false?

5678. Re: MAXX automatic antenna tuners

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 21:19:27 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E10B85F.102@ieee.org>
Source record: 128217

G Blair wrote:
> Anyone used the MAXX antomatic antenna tuners, http://www.maxx-com.com/?
>
> How well do they work?
>
> If you have no first hand experience or otherwise know nothing about this
> tuner, please do not respond to this post.

Is this the same maxx-com that uses a loading resistor? If so, why
spend a thousand dollars on a transceiver to heat up a resistor? You
can heat up the resistor with 110vac right out of your wall plug.
--
cheers, CAM http://www.qsl.net/w5dxp

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5679. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 21:20:49 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E10B8B1.7080503@ieee.org>
Source record: 128218

Fred Hambrecht Sr. wrote:
> I will take that bet CAM, I have no balun and no RF in the shack.
>
> But then again my shack is in a screen room and I have no transmitter.
> Please forward the $1000 to my payameigo account.

Sorry Fred, but your boundary conditions are a violation of my
boundary conditions. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5680. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 21:23:45 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E10B961.9080300@ieee.org>
Source record: 128119
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

RVMJ wrote:
> OC_CAM's Razor wrote:
>>Seems that 1/2WL would make a perfect ground wire. Seems that
>>an even multiple of 1/4WL is what you are talking about.
>>5m of wire on 20m would be a worst case ground.
>
> If you want to get RF out of the shack, use a quarter-wave
> counterpoise, adjusted in length for maximum effect.
>
> Half a wavelength will merely keep the volts where they are, just
> where you *don't* want them.....

1/4WL is good if the other end is open-circuited. 1/2WL is good
if the other end is grounded. If the other end is grounded, the
volts will be close to zero with 1/2WL.
--
cheers, CAM http://www.qsl.net/w5dxp

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5681. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 21:26:12 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E10B9F4.7020206@ieee.org>
Source record: 128120

Dave Shrader wrote:
> You can put a balun or an unun or a current balun [RF Choke] on the
> antenna and feed lines all you want and you will ALWAYS have RF in the
> shack! ALWAYS!

Shuuuusssshhhhhhh Dave, I was trying to win $1000 on that bet. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5682. 500 Watts on HF: Asking for trouble?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 21:30:44 UTC
From: BICisfag <ll@jj.com>
Message-ID: <3E10BB04.B7DC9780@jj.com>
Source record: 128121

I want to get a 500 w solid state amp for HF.

I don't seem to have any interference problems with
neighbors now with 100 w.

I have dipoles for 80 and 40 and a vertical and inv. L.

Am I asking for trouble with 500 w?

5683. Re: Thanks GAP

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 22:05:16 UTC
From: Dan/W4NTI <w4nti@NOSPAMmindspring.com>
Message-ID: <auqfudqlj1@slb9.atl.mindspring.net>
Source record: 128122
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.antenna

I have one of those GAPs....I assume your talking about the 45 foot GAP Voyager DX...?? I didn't really like the way it was working on 160. How does yours do Hans?

Dan/W4NTI

"K�HB" <k�hb@arrl.DOTORG> wrote in message news:cv0Q9.4570$9N5.457866@newsread2.prod.itd.earthlink.net...
> During the recent ARRL 160M contest the SWR on my several-year-old GAP
> antenna suddenly went screwy. Turned out I'd scorched the capacitive
> compensating module at the top of the antenna. GAP sent a replacement
FREE
> (including shipping) in time for me to compete in the Stew Perry Topband
> Challenge.
>
> Thanks, GAP.
>
> ��� 73, de Hans, K0HB
> --
> Help support youth involved in Amateur Radio.
> http://www.mnyarc.org
> http://www.k0bsa.org
>
>

5684. Re: MAXX automatic antenna tuners

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 22:22:30 UTC
From: Dale Parfitt <parinc@verizon.net>
Message-ID: <3E10C3C6.FE1EA98@verizon.net>
Source record: 128123

G Blair wrote:

> Anyone used the MAXX antomatic antenna tuners, http://www.maxx-com.com/?
>
> How well do they work?
>
> If you have no first hand experience or otherwise know nothing about this
> tuner, please do not respond to this post.

MY guess this is the same company exposed in QST years back- an elevated resistor sealed in epoxy- quite a profit margin.
Dale W4OP

5685. Re: MAXX automatic antenna tuners

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 22:26:45 UTC
From: tdonaly@aol.com
Message-ID: <20021230172645.22957.00000334@mb-mf.aol.com>
Source record: 128124

Cecil wrote,
>
>Is this the same maxx-com that uses a loading resistor? If so, why
>spend a thousand dollars on a transceiver to heat up a resistor? You
>can heat up the resistor with 110vac right out of your wall plug.
>--
>cheers, CAM http://www.qsl.net/w5dxp
>
Yes, but is it a conjugate match?
73,
Tom Donaly, KA6RUH

5686. Re: Thanks GAP

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 22:38:06 UTC
From: K<unk>HB <k<unk>hb@arrl.DOTORG>
Message-ID: <iV3Q9.4919$9N5.489585@newsread2.prod.itd.earthlink.net>
Source record: 128125
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.antenna

"Dan/W4NTI" <w4nti@NOSPAMmindspring.com> wrote

: I have one of those GAPs....I assume your talking about the 45 foot GAP
: Voyager DX...?? I didn't really like the way it was working on 160. How
: does yours do Hans?

It's a reasonably good transmitting antenna given its footprint, but noisy
on receive (the curse of verticals!). To receive I use a horizontal loop
and during contests string some temporary beverages.

<unk><unk><unk> 73, de Hans, K0HB
--
Help support youth involved in Amateur Radio.
http://www.mnyarc.org
http://www.k0bsa.org

5687. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 23:06:42 UTC
From: k1bqt@aol.com
Message-ID: <20021230180642.22915.00000326@mb-mf.aol.com>
Source record: 128126

>Is it time to wrap this discussion up?<

Nobody has RF in the shack until something doesn't work right. Kinda reminds me of a poem:

There I sat all bloody
Broken as can be
Didn't need no seat belt
But for that damned old tree.

Rick K1BQT

5688. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 23:17:14 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <auqk5f$9erru$1@ID-175933.news.dfncis.de>
Source record: 128127

"Richard Harrison" <richardharrison@webtv.net> wrote
> >Zender Swonssen wrote:
> >"What would be a typical FM-radio-station-antenna height?"
>
> About 300 meters or 1000 feet.

Don't know if that height above is the true average height of all US FM stations. Those antenna heights can vary from less than 50 to over 600 meters above average terrain (not height above local ground elevation). The FCC assigns FM stations to different heights and radiated powers according to their class of service. The maximum power radiated toward the radio horizon can vary from a few hundred watts to over 100,000 watts

Richard Fry, CPBE

5689. Re: MAXX automatic antenna tuners

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 23:19:59 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E10D49F.8030103@ieee.org>
Source record: 128128

Tdonaly wrote:
> Cecil wrote,
>>Is this the same maxx-com that uses a loading resistor? If so, why
>>spend a thousand dollars on a transceiver to heat up a resistor? You
>>can heat up the resistor with 110vac right out of your wall plug.
>
> Yes, but is it a conjugate match?

The power company certainly hopes not. :-)
--
cheers, CAM http://www.qsl.net/w5dxp

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5690. Re: 500 Watts on HF: Asking for trouble?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 23:23:24 UTC
From: cprstn54zz@att.net
Message-ID: <3e10d307.202601734@news-server.optonline.net>
Source record: 128129

On Mon, 30 Dec 2002 13:30:44 -0800, BICisfag <ll@jj.com> wrote:
>Am I asking for trouble with 500 w?

I find that TV sets (on cable) within 20 ft of my dipole are affected by 100 watts. At 30 ft., nothing. I think it is caused by RF induced in the 110V house wiring.

Based on this limited sample, I would think you are OK if your neighbors' houses are 50 ft from your antenna. The answer is probably different for RF devices, like cordless phones, antenna TV's, etc.

I will let you know for sure in a week or so: My 600 watt amp is due back from Yaesu and my nearest neighbors are around 40 ft from my dipole.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

5691. Re: MAXX automatic antenna tuners

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-30 23:56:23 UTC
From: Stan <ekees@charter.net>
Message-ID: <v11n7oblmok457@corp.supernews.com>
Source record: 128130

QST or 73 X-rayed one of their "antenna matchers" years ago. It was nothing but a block of resin with random junk inside... nothing connected to the coax. I wouldn't risk it. It could be real. However, they also could have been waiting for everyone to forget the last scam.

Eric N7HWW

5692. Re: 500 Watts on HF: Asking for trouble?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 00:03:06 UTC
From: Dick <rhughes33@cableone.net>
Message-ID: <een11vg6jvotoop9ofkmroefc5d9aib49l@4ax.com>
Source record: 128131

An even more important question is, "will the amplifier be in
compliance with the new FCC RF exposure regulations. Here is a URL
with everything you could possibly want to know about it.
http://www.arrl.org/news/rfsafety/

Here is a site where you can calculate the exposure on-line.
http://n5xu.ae.utexas.edu/rfsafety/

Dick - W6CCD

On Mon, 30 Dec 2002 23:23:24 GMT, cprstn54zz@att.net (Ken) wrote:

>On Mon, 30 Dec 2002 13:30:44 -0800, BICisfag <ll@jj.com> wrote:
>>Am I asking for trouble with 500 w?
>
>I find that TV sets (on cable) within 20 ft of my dipole are affected
>by 100 watts. At 30 ft., nothing. I think it is caused by RF induced
>in the 110V house wiring.
>
>Based on this limited sample, I would think you are OK if your
>neighbors' houses are 50 ft from your antenna. The answer is probably
>different for RF devices, like cordless phones, antenna TV's, etc.
>
>I will let you know for sure in a week or so: My 600 watt amp is due
>back from Yaesu and my nearest neighbors are around 40 ft from my
>dipole.
>
>Ken KC2JDY
>
>Ken
>(to reply via email
>remove "zz" from address)

5693. Re: 500 Watts on HF: Asking for trouble?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 00:09:44 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <auqn87$c9k$1@venus.btinternet.com>
Source record: 128132

"BICisfag" wrote -

> I want to get a 500 w solid state amp for HF.
>
> I don't seem to have any interference problems with
> neighbors now with 100 w.
>
> I have dipoles for 80 and 40 and a vertical and inv. L.
>
> Am I asking for trouble with 500 w?

Not if you comply with your licensing conditions.

It's only another 7dB but the receiving-end will notice a significant increase in your signal strength - about 1 S-unit.

Increase power from 100 to 500W and all voltages and currents increase by Sqrt(5) = 2.2 times.

Watch for things like arcing-over in tuners, overheating of loading coils, traps, baluns, TLI (SWR meters), and more painful burns from RF in the shack. You may suffer from more RF feedback into the mike, or feedback around the 500-watt PA which at present does not exist.

The guiding principle is to ensure ALL components in the radiating system have adequate power ratings, paying particular attention to inter-equipment bonding and grounding.

If you have a good friend who will trust you wih his higher power rig for a few days, even a few hours, then you are laughing. Just replace everything which issues smoke or sparks. ;o)

No need to do anything about interference until somebody get any. Then the equipment which is being interfered with should be attended to first. After all, if YOU are complying with the Law it must be the other fellow's equipment which is defective. In such situations, of course, a gentlemanly, charitable attitude works wonders. What a pity some Governments don't follow such peaceful guidlines.

==========
Regards from Reg G4FGQ
For Free Radio Design Software
Go to http://www.g4fgq.com
==========

5694. Re: What kind of balun do you use for HF antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 00:16:41 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E10E1A4.1010005@attbi.com>
Source record: 128133

Sorry about the bet CAM. We live in an RF saturated world. I even have a special RF signal in the shack so I can watch the Boston Bruins tonight!

DD, W1MCE

OC_CAM's Razor wrote:
> Dave Shrader wrote:
>
>> You can put a balun or an unun or a current balun [RF Choke] on the
>> antenna and feed lines all you want and you will ALWAYS have RF in the
>> shack! ALWAYS!
>
>
> Shuuuusssshhhhhhh Dave, I was trying to win $1000 on that bet. :-)

5695. Re: 500 Watts on HF: Asking for trouble?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 00:24:36 UTC
From: OC_CAM's Razor <Cecil.A.Moore@ieee.org>
Message-ID: <3E10E3C4.9020808@ieee.org>
Source record: 128134

BICisfag wrote:
> I want to get a 500 w solid state amp for HF.
>
> I don't seem to have any interference problems with
> neighbors now with 100 w.
>
> I have dipoles for 80 and 40 and a vertical and inv. L.
>
> Am I asking for trouble with 500 w?

The only way you'll know is to borrow an amp and try it.
I run 500 W with no problems. N5AQM can't run more than
100 W in Chandler, AZ without his neighbors objecting.
--
cheers, CAM http://www.qsl.net/w5dxp

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5696. Automatic Antenna tuners....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 00:45:51 UTC
From: Henrik <henrik>
Message-ID: <3e10e8c0$0$198$edfadb0f@dread16.news.tele.dk>
Source record: 128135

Hi, thanks for reading, and happy new year!

Just fell over this homepage for a coupler:

http://www.maxx-com.com/index.html

and as I recognise it, is a "passive" tuner....where the rf selects the route to the antenna through passive components, hence no supply of power, relay's or other active components to fry or wear down.....

Has there been any diagrams published for home brew...and is it a true and good alternative to active tuners?

H.

5697. GAP VERTICAL ANTENNA PERFORMANCE

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 00:47:16 UTC
From: Asa Page <asapage@worldnet.att.net>
Message-ID: <oO5Q9.86825$hK4.7058468@bgtnsc05-news.ops.worldnet.att.net>
Source record: 128136

Anyone had any experiences with either the Titan DX or the Challenger DX vertical antennas produced by GAP Antennas? If you had it to do all over again, would you purchase either of the antennas again?

Just looking before I leap.

Thanks.

Asa
KH2N

5698. Re: Automatic Antenna tuners....

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 00:52:01 UTC
From: Henrik <henrik>
Message-ID: <3e10ea32$0$142$edfadb0f@dread16.news.tele.dk>
Source record: 128137

"Henrik" <henrik> wrote in message
news:3e10e8c0$0$198$edfadb0f@dread16.news.tele.dk...
> Hi, thanks for reading, and happy new year!
>
> Just fell over this homepage for a coupler:
>
> http://www.maxx-com.com/index.html
>
> and as I recognise it, is a "passive" tuner....where the rf selects the
> route to the antenna through passive components, hence no supply of power,
> relay's or other active components to fry or wear down.....
>
> Has there been any diagrams published for home brew...and is it a true and
> good alternative to active tuners?
>
> H.
>
>
Sri....just saw the comments in the Maxx thread below after writing my
own.......it explains all!

H

5699. Re: 500 Watts on HF: Asking for trouble?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 01:01:22 UTC
From: Dave Shrader <david.shrader@attbi.com>
Message-ID: <3E10EC1C.6000107@attbi.com>
Source record: 128138

Nope! But you will have to assure that your station complies with all aspects of 47 CFR 97.

I run 1 KW on 80 through 10 meters. All neighbors have their tv's on cable. So far so good. One neighbor bought a radio shack splitter and 2 50 foot pieces of RG-6 for 2 additional tv sets. So far so good? Not so!! He bought the cheapest cable made/sold by Radio Shack. Now, I could have insisted the problem is his and he should use higher quality cable. I would be right! And, I'd have a P.O.'d neighbor.

Instead I showed him the cable system in my house, 3 tv's on high quality Belden RG-6. Then I demonstrated that I had no tv problems!

We wound up sharing the cost of 100 feet of RG-6 from ATT Broadband. [my share $30.00]. $30 is a cheap investment when I have spent over $7000 on a ham station.

Next potential issue: telephone interference!! Get some K-Comms and just give them away!!

Next potential issue: VCRs: good luck! I gave up on a Panasonic TV/VCR combination. The VCR mixer is always powered! It is not a requirement to be free of interference on VCRs [no selectivity]. [I did adjust my operating hours around this neighbors Saturday Night Movie.]

Next potential issue: Stereos. Clamp on ferrite for speaker leads solves most issues.

Next potential issue: Computer powered speakers. good luck! see above. Not a requirement to be free of interference on computer powered speakers. I keep a COMPAQ notebook right next to my amplifier and demonstrate no problem and have them contact their local computer fixit guru.

Bottom line. Be on good terms with your neighbors. Let them know when and how often you operate. If they even 'think' there is an issue make sure they let you know before their blood pressure goes up. Be proactive in solving the interference issue. [caution: don't open any neighbor's equipment! Provide the filters free and show them how they are installed at YOUR location and recommend they contact the service technician]

I keep about $200 worth of K-coms, HP filters, clamp on ferrites, ac line chokes, etc. as part of my station.

Having a neighbor actually see that your house is interference free is a strong indicator that their house can also be interference free, but with some additional effort. I operated at the KW level for over 20

years. My neighbors knew it and were not bothered.

73, Deacon Dave, W1MCE
++++++++++++++++++++++++
BICisfag wrote:
> I want to get a 500 w solid state amp for HF.
>
> I don't seem to have any interference problems with
> neighbors now with 100 w.
>
> I have dipoles for 80 and 40 and a vertical and inv. L.
>
> Am I asking for trouble with 500 w?
>
>
>

5700. Re: 500 Watts on HF: Asking for trouble?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 01:31:25 UTC
From: Murray Neece <radioranch@qth.com>
Message-ID: <3E10F36D.D1F9BD7E@qth.com>
Source record: 128139
Body handling: Binary attachment payload not displayed: radioranch.vcf

No! I didnt!! 73 Murray K5MDM

BICisfag wrote:

> I want to get a 500 w solid state amp for HF.
>
> I don't seem to have any interference problems with
> neighbors now with 100 w.
>
> I have dipoles for 80 and 40 and a vertical and inv. L.
>
> Am I asking for trouble with 500 w?

[One or more binary attachments are retained only in the source text.]

5701. Re: 500 Watts on HF: Asking for trouble?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 01:58:49 UTC
From: Bill M <don'tspamme-exray@caribe.net>
Message-ID: <v11uakolmoi558@corp.supernews.com>
Source record: 128140

Dick wrote:
> An even more important question is, "will the amplifier be in
> compliance with the new FCC RF exposure regulations. Here is a URL
> with everything you could possibly want to know about it.
> http://www.arrl.org/news/rfsafety/
>
> Here is a site where you can calculate the exposure on-line.
> http://n5xu.ae.utexas.edu/rfsafety/
>
> Dick - W6CCD

Funny how this new dangerous 'exposure' becomes the answer to such a simple 1930s question. All thats fine and good since it has now become a "consumer's measuring stick".
But, going from 100 to 500 watts is what, 6-8 db increase?
In practice the scale runs something like....
1. There's a guy with a big antenna up the street and I think Jerry Springer sux so the big antenna must be the problem why I can't receive better programming.
2. There's a guy with a big antenna up the street that interferes with Jerry Springer.
3. There's a guy up the street who thinks he is better than Jerry Springer.
4. There's a guy up the street who is infringing on my rights to watch Jerry Springer.
5. When that guy up the street put up them antennas my water heater died and Jerry Springer can't help me.

About ninety percent of TVI cases involve such mentality. Your 6 or 8 db increase won't be the determining factor.

-Bill WX4A

5702. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 02:19:36 UTC
From: richardharrison@webtv.net
Message-ID: <10146-3E10FEB8-83@storefull-2311.public.lawson.webtv.net>
Source record: 128143

Richard Fry wrote:
"Don`t know if that height (1000 feet) above is the true average height of all US FM stations."

I don`t either.

My dictionary says:
"Typical" means pertaining to, or of the nature of---." It says nothing about averages or median values. The question was:
"What would be a typical FM-radio-station-antenna height?"

I went to work for a broadcaster who had a highly profitable AM operation on 790 KHz in 1949. He also had an FM affiliate on a tower on Ennis Street in downtown Houston. It is still there, but the call sign and programming are different. It now speaks Spanish. FM time couldn`t be sold in 1949. It was given as a "bonus" to advertisers on the AM affiliate.

The call leters of our FM affiliate were indicative of its programming. The call sign was: KOPY. Its main value to us was as a backup to the program line serving the AM transmitter site out of town.

I think our FM operation was typical at the time. 1000-foot towers were used by serious entrepreneurs who hoped to profit from FM in the long run. The broadcaster wanted the range of his FM affiliate to rival his AM affiliate if he were ever to make a go of it. Most were convinced that FM would eventually pay off due to the superiority of FM reception. You had to have pioneering FM broadcasters if there were ever to be a critical mass of listeners to make FM broadcasting economically viable. Today, a broadcaster has to at least meet the competition to reach listeners in a large metropolitan area.

Best regards, Richard Harrison, KB5WZI

5703. Re: QST---'Empire of the Air' on PBS 2NITE

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 02:39:06 UTC
From: richardharrison@webtv.net
Message-ID: <10146-3E11034A-84@storefull-2311.public.lawson.webtv.net>
Source record: 128144

Chip, N1IR wrote:
"Classic Ken Burns` documentary on DeForest-Armstrong-Sarnoff conflict."

"Empire of the Air" rivals all the great Ken Burns historical shows. Unlike fiction, the audience may not leave smiling. The hero, Armstrong, commits suicide and the villian, Sarnoff wins.

Not really a happy ending, but that`s history for you.

Best regards, Richard Harrison, KB5WZI

5704. synchronizing Radio Shack rotor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 02:40:40 UTC
From: sofasurfer@blclinks.net
Message-ID: <fba47d15.0212301840.5cb760c7@posting.google.com>
Source record: 128142

I just bought a RS rotor. I hooked it up in the living room to test it. It onlt rotates about 315 degrees. I took it back and exchanged it for another. Took it home and it does the same thing!!!!

Am I missing something that any idiot should have NO problem with or what?

5705. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 03:06:19 UTC
From: Ian <cls119@lycos.co.uk>
Message-ID: <NQ7Q9.1967$0a6.233453@newsfep2-win.server.ntli.net>
Source record: 128145

Hello,

YAWN put your dictionary away.

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:10146-3E10FEB8-83@storefull-2311.public.lawson.webtv.net...
> Richard Fry wrote:
> "Don`t know if that height (1000 feet) above is the true average height
> of all US FM stations."
>
> I don`t either.
>
> My dictionary says:
> "Typical" means pertaining to, or of the nature of---." It says nothing
> about averages or median values. The question was:
> "What would be a typical FM-radio-station-antenna height?"
>

5706. Re: Folded unipole for AM band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 03:09:19 UTC
From: Ian <cls119@lycos.co.uk>
Message-ID: <yT7Q9.1968$0a6.233516@newsfep2-win.server.ntli.net>
Source record: 128146

Hello,

Which book did you copy that from, it looks fairly interesting - can you
scan the pictures in too?

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:16190-3E106E34-203@storefull-2314.public.lawson.webtv.net...
> Jacques, ON5MJ wrote:
> "-1485 KHz) particularly about transmission line connection?"
>
> A folded unipole is 1/2 a folded dipole. The ground system of radials
> produces the missing half of the dipole by production of a virtual image
> of the 1/4-wave in the air.
>

5707. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 03:22:39 UTC
From: Bill M <don'tspamme-exray@caribe.net>
Message-ID: <v1237qjmsoue07@corp.supernews.com>
Source record: 128147

Ian wrote:
> Hello,
>
> *YAWN* put your dictionary away.

This 1485kc euro-poster has been a regular on many groups for about a year looking for a way to make something less than an drainpipe function without doing any real work.

Yawn indeed!

Yank/KP4

5708. Re: 500 Watts on HF: Asking for trouble?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 03:37:50 UTC
From: Murray Neece <radioranch@qth.com>
Message-ID: <3E11110E.599CF488@qth.com>
Source record: 128148
Body handling: Binary attachment payload not displayed: radioranch.vcf

Thats what I said, just didnt get so verbose!! hihi M

Bill M wrote:

> Dick wrote:
> > An even more important question is, "will the amplifier be in
> > compliance with the new FCC RF exposure regulations. Here is a URL
> > with everything you could possibly want to know about it.
> > http://www.arrl.org/news/rfsafety/
> >
> > Here is a site where you can calculate the exposure on-line.
> > http://n5xu.ae.utexas.edu/rfsafety/
> >
> > Dick - W6CCD
>
> Funny how this new dangerous 'exposure' becomes the answer to such a
> simple 1930s question. All thats fine and good since it has now become
> a "consumer's measuring stick".
> But, going from 100 to 500 watts is what, 6-8 db increase?
> In practice the scale runs something like....
> 1. There's a guy with a big antenna up the street and I think Jerry
> Springer sux so the big antenna must be the problem why I can't receive
> better programming.
> 2. There's a guy with a big antenna up the street that interferes with
> Jerry Springer.
> 3. There's a guy up the street who thinks he is better than Jerry Springer.
> 4. There's a guy up the street who is infringing on my rights to watch
> Jerry Springer.
> 5. When that guy up the street put up them antennas my water heater
> died and Jerry Springer can't help me.
>
> About ninety percent of TVI cases involve such mentality. Your 6 or 8
> db increase won't be the determining factor.
>
> -Bill WX4A

[One or more binary attachments are retained only in the source text.]

5709. Re: MAXX automatic antenna tuners

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 03:59:26 UTC
From: KB9TMP <kb9tmp@juno.com>
Message-ID: <v125gtt82qu785@corp.supernews.com>
Source record: 128149

"G Blair" <gblair@sympatico.ca> wrote in message
news:pan.2002.12.30.17.41.31.747751@sympatico.ca...
> Anyone used the MAXX antomatic antenna tuners, http://www.maxx-com.com/?
>
> How well do they work?
>
> If you have no first hand experience or otherwise know nothing about this
> tuner, please do not respond to this post

If it sounds to good to be true, it probably is.
Especially starting at $375.00, talk about one
expensive bottle of snake oil.

--
'73' & Happy New Year From KB9TMP

5710. Re: Type of Inductor for LP HP Filters

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 04:01:11 UTC
From: Al <ABurzynski@nojunk.satx.rr.com>
Message-ID: <bE8Q9.9153$an1.591088@twister.austin.rr.com>
Source record: 128141

Thanks for all the info and the sources, I appreciate it.

Al
KA5JGV

5711. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 04:15:41 UTC
From: Tarmo Tammaru <t-tammaru@home.com>
Message-ID: <dw2dnbkXounMhIyjXTWcpA@comcast.com>
Source record: 128150

Zender, I don't know what is typical, but I used to live about 5 miles from
2 VHF and one UHF TV transmitters. All used guyed towers of around 2000
feet. The "coax" going up the tower looked like stove pipe.

Tam/WB2TT
"Zender Swonssen" <zeti@volcanomail.com> wrote in message
news:b212035c.0212301108.458782e8@posting.google.com...
> hello guys,
>
> what would be a typical FM-radio-station-antenna-height? I assume it
> will be dependent on budget and terrain. Can anyone also say the same
> parameter for a AM (SW) radio station, also if possible for
> UHF-tv-station.? To be more general, I would appreciate info about any
> type of comm-service antenna-height.
>
> best regards,
>
> zender

5712. Re: Please suggest SW antenna for "French balcony"

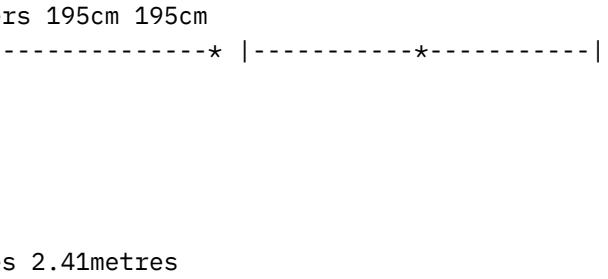
Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 05:23:49 UTC
From: Candy <candy200@mailandnews.com>
Message-ID: <3E1129E5.8D8326DC@mailandnews.com>
Source record: 128151
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Tom Nelson wrote:
>
> Make a dipole centered on your balcony and let the ends droop down to
> your downstairs neighbor's balcony. Use insulated wire and, of course,
> get your neighbor's approval. Do NOT tell your "supe" or landlord. You
> can use very small wire that matches the color scheme. Be prepared to
> experiment. SW listening in an apartment can be tough due to
> interference. Touch switches, aquarium heaters, computers, and a ton of
> other cheap electric gee-gaws will send off signals on the exact
> frequency to which you wish to listen! Good luck. Please report back.
>
> Tom
> KD6EVM

Unfortunatelly, I can't drop wires down to neighbour's balcony, he is a
nut.

There are only two possible setups in my limited space balcony would a
"V" dipole turned 90 degrees, something like this:

1.] 2.]



Will any of those schemes work as dipole ? I'll build an impendance
transformer (ratio 9:1, by FT82-77 Amidon toroid core, which is suitable
for frequency range 100kHz up to 30 MHz.)

Maybe a better approach would be a "random wire" antenna instead of a
dipole, as one peace of wire, horizontal + downloead = 6.26 metres ?
Will the transformer described above somehow help cover signals
100kHz-30 MHz ? (receiving SW only).

Someone in this newsgroups suggested a mobile CB whip placed horizontaly
with an impendance transformer ratio 9:1, I'll try that too, but first
I'd' like to build some antenna with the cheapest material: a wire, if
possible.

Thanks.

5713. Re: Folded unipole for AM band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 05:27:47 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3e11313b_4@news1.prserv.net>
Source record: 128152

Jacques:
Read the following NAB paper:
http://www.dlr.com/dlrweb/papers/nabpaper/nabpaper.htm
Which is the only correctly documented set of measurements which I have seen
on this antenna for MW Broadcasting.

--
Crazy George
Remove NO and SPAM from return address
"ON5MJ" <on5mjREMOVE@skynet.be> wrote in message
news:3e0f85c6$0$90233$ba620e4c@news.skynet.be...
> Does anybody have technical infos about this kind of antenna (100% AM
> modulation - 1 Kw carrier - 1.485 KHz) particularly about transmission
> line connection ?
>
> Any comment, link, experience, etc will be appreciated. TNX
>
> 73 de ON5MJ - Jacques.
>
>

5714. Re: synchronizing Radio Shack rotor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 05:29:40 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3e11313c_4@news1.prserv.net>
Source record: 128153

Carefully read the instructions. Apparently you either have not initialized
it or have it overloaded. That design is very marginal as far as
synchronization is concerned anyway.

--
Crazy George
Remove NO and SPAM from return address
"Daryl Helwig" <sofasurfer@blclinks.net> wrote in message
news:fba47d15.0212301840.5cb760c7@posting.google.com...
> I just bought a RS rotor. I hooked it up in the living room to test
> it. It onlt rotates about 315 degrees. I took it back and exchanged it
> for another. Took it home and it does the same thing!!!!
>
> Am I missing something that any idiot should have NO problem with or
> what?

5715. Re: Folded unipole for AM band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 05:31:48 UTC
From: richardharrison@webtv.net
Message-ID: <11267-3E112BC4-102@storefull-2318.public.lawson.webtv.net>
Source record: 128154

Ian wrote:
"Which book did you copy that from---?"

Had I quoted a book, I would have credited the source. I don`t remember the sources but you are correct in that it is not original information which I discovered. I accept blame for sloppy structure and organization.

I did no look-up in books before answering a simple question in the thread. That`s how I err, but I`m not being paid to get it right. Errors are usually caught by somebody, leaving the questioner wondering whom to believe.

Best regards, Richard Harrison, KB5WZI

5716. Re: 500 Watts on HF: Asking for trouble?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 06:10:37 UTC
From: 'Doc <ltdoc@yahoo.com>
Message-ID: <3E1134DD.50103@yahoo.com>
Source record: 128155

BIC,
No one can tell you if you're going to have
RFI problems or not. It's a fairly safe bet
that if you aren't having problems now, you
probably won't with 500 watts. Even if you do
have RFI problems it shouldn't be too hard to
do what needs to be done to clean up any problems
with your equipment. After that, it isn't
~your~ problem anymore...
'Doc

5717. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 06:45:10 UTC
From: richardharrison@webtv.net
Message-ID: <3106-3E113CF6-111@storefull-2314.public.lawson.webtv.net>
Source record: 128156

Zender Swonssen wrote:
"Can anyone also say the same parameter for an AM (SW) radio station?"

There are several answers. Medium wave stations use vertical antennas because there is no groundwave propagation of horizontally polarizeed waves.

Almost any vertically polarized antenna will do for producing vertically polarized waves but broadcasters have to meet minimum efficiency requirements and a 1/4-wave meets the minimum. An increase up to 5/8-wavelength produces more field strength without much added complexity, but most broadcasters are satisfied with a 1/4-wavelength radiator.

When vertical antennas are used for short wave, 1/4 wave is the usual antenna length as in medium wave broadcasting.

Very few shortwave broadcasters or other commercial users of ionospheric propagation use vertical polarization. Most use horizontal antennas and these are usually 1/2-wave antenna elements or dipoles unless rhombics or Beverage antennas are being used. These are usually several wavelrngths long. Many stations use curtain antennas of dipoles and reflectors. In the Andes, full-wave quad elements are used to avoid corona discharge at open-circuit ends of elements at high altitude.

Warning, I am reciting this from memory without reference to any book, so it may be subject to error. I have worked in medium wave stations, shortwave stations, and erected several stations in the Andes, but that was long ago, and I may have memory lapses.

Best regards, Richard Harrison, KB5WZI

5718. Re: MAXX automatic antenna tuners

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 11:15:13 UTC
From: Bob Nielsen <nielsen@remove_this.oz.net>
Message-ID: <auru81ohf0@216.39.144.81>
Source record: 128157

On Mon, 30 Dec 2002 15:56:23 -0800, Stan wrote:
> QST or 73 X-rayed one of their "antenna matchers" years ago. It was nothing
> but a block of resin with random junk inside... nothing connected to the
> coax. I wouldn't risk it. It could be real. However, they also could have
> been waiting for everyone to forget the last scam.
>
> Eric N7HWW

The QST article is still available in the members-only area of the ARRL web site.

Bob N7XY

5719. Re: GAP VERTICAL ANTENNA PERFORMANCE

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 13:02:13 UTC
From: "Michael Weissman, M.D." <mikew@removemecloud9.net>
Message-ID: <3E119555.2080008@removemecloud9.net>
Source record: 128158

I have used a Challenger for six months. It has done much better than I expected. Good for scheds from NY -> NC on 40m. For casual DX, I have worked >160 countries since I set it up. I also use it on 2m with my base station.

I sometimes use a small amp, sometimes barefoot. Generally, if I hear the station I can work it.

This was a good investment of time and money.

Mike

Asa Page wrote:
> Anyone had any experiences with either the Titan DX or the Challenger DX
> vertical antennas produced by GAP Antennas? If you had it to do all over
> again, would you purchase either of the antennas again?
>
> Just looking before I leap.
>
> Thanks.
>
> Asa
> KH2N
>
>

5720. 300 Feet of 7/8" Hardline - 70 Ohm

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 14:37:06 UTC
From: ron.lucier@flir.com
Message-ID: <90376889.0212310637.155f03a6@posting.google.com>
Source record: 128159

Best offer over the next week or it will be left out for the trash man to take. This is the end of a coil of cable TV hardline. Not sure the exact length - somewhere between 250 and 300 feet using the old Pi times D times the number of coils method. I live in Central Mass and unless you want to pay for shipping, meet me nearby to pick it up.

73 de W1AAE

5721. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 15:31:20 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <%KiQ9.340$rs4.371305@newsfeed.slurp.net>
Source record: 128160

"Richard Harrison" <richardharrison@webtv.net> wrote
>
> There are several answers. Medium wave stations use vertical antennas
> because there is no groundwave propagation of horizontally polarizeed
> waves.

"No groundwave propagation?" Not really. Medium wave broadcast stations use vertical polarization because propagation losses for horizontal polarization are higher. But those losses are not infinite, by any stretch.

Richard Fry

5722. recommendation: portable 2M antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 16:38:05 UTC
From: tennant@example.com
Message-ID: <aush5b$2os$1@news.chatlink.com>
Source record: 128161

I'm looking for plans for a 2M antenna for mobile/portable use - school and scout camp demos, hotel rooms, and so on. I'm looking for a design that will "fold" or "roll up" then be taken out and hung in a window or from a tree in use. If *absolutely* necessary I would use something rigid with dimensions that would fit the bottom of a car trunk. I can trade portability for lower performance. Most sites will be near a repeater and some 2M activity. I'll be driving it with an HTX-252 (10-25 watt radio). First attempt at antenna consutruction. Recommendations or URLs to plans? TIA ...

5723. Re: recommendation: portable 2M antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 16:51:28 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <kWjQ9.11329$L61.957137@news1.west.cox.net>
Source record: 128162

MFJ makes a Pocket Roll-up 2 Meter J-antenna MFJ-1730
http://www.mfjenterprises.com/products.php?prodid=MFJ-1730

Build a hanging dipole for two metres
http://www.alphalink.com.au/~parkerp/projhan.htm

HomeBrew TWIN LEAD J-Pole http://www.sedan.org/ant.htm#2mdipole

--
I Doubt, Therefore I Might Be
73 From AC6V, Rod In Oceanside, CA
http://ac6v.com
<tennant@example.com> wrote in message
news:aush5b$2os$1@news.chatlink.com...
> I'm looking for plans for a 2M antenna for mobile/portable use - school
and
> scout camp demos, hotel rooms, and so on. I'm looking for a design that
> will "fold" or "roll up" then be taken out and hung in a window or from a
> tree in use. If *absolutely* necessary I would use something rigid with
> dimensions that would fit the bottom of a car trunk. I can trade
> portability for lower performance. Most sites will be near a repeater and
> some 2M activity. I'll be driving it with an HTX-252 (10-25 watt radio).
> First attempt at antenna consutruction. Recommendations or URLs to plans?
> TIA ...

5724. Re: GAP VERTICAL ANTENNA PERFORMANCE

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 16:58:53 UTC
From: Ken Bessler <kg0wx@yahoo.com>
Message-ID: <h1kQ9.98110$Y86.95754@news2.central.cox.net>
Source record: 128163

"Asa Page" <asapage@worldnet.att.net> wrote in message
news:oO5Q9.86825$hK4.7058468@bgtnsc05-news.ops.worldnet.att.net...
> Anyone had any experiences with either the Titan DX or the Challenger DX
> vertical antennas produced by GAP Antennas? If you had it to do all over
> again, would you purchase either of the antennas again?
>
> Just looking before I leap.
>
> Thanks.
>
> Asa
> KH2N
>
>

I've had my Titan DX since August 2001. My rig is an FT817 qrp rig
so my max power is only 5 watts. Still, if I can hear a station I generally
can work them.

I also use it on 6 meters (great SWR) where it is only an S-unit or two
down from my Comet 4 element 6 meter Yagi.

On 2 meters it often outperforms my Hy-Gain 14 element yagi but
the yagi, like my 6 meter antenna, is horizontally polarised.

Despite GAP's instructions I loosley guyed the antenna three ways
with parachute cord - I just didn't want the antenna swaying in the
wind and getting metal fatigue

I have found that the Titan DX is everything the manufacturor says
it is and more. Well worth the price. There are more reviews at:

http://www.eham.net/reviews/detail/315

5725. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 17:16:29 UTC
From: richardharrison@webtv.net
Message-ID: <9640-3E11D0ED-161@storefull-2316.public.lawson.webtv.net>
Source record: 128164

Richard Fry wrote:
"But those losses (to horizontally polarized waves traveling the earth`s surface) are not infinite by any stretch."

I had written: "---there is no groundwave propagation of horizontally polarized waves."

In my ancient memory are numerous affirmations of high ground attenuation of horizontally polarized waves. No attenuation is infinite. But some are are infinite for practical purposes, and by only a slight stretch.

I recall that somewhere in Terman`s 4th edition are three solid statements of this single fact that there is no groundwave propagation of horizontally polarized waves. I never expected to be contradicted on this universal observation.
So, I didn`t book mark the pages.

A reflection is out-of-phase with the incident wave. If they are stacked one on top of the other like batteries in series, they add. If they stack side-by-side each other like two cells connected plus to minus and minus to plus, they short out.
The additive battery is like vertical polarization. The shorted cells make the horizontally polarized case.

From page 803, paragraph 22-2 of Terman`s 1955 edition of "Electronic and Radio Engineering":
"The ground wave is vertically polarized, because any horizontal component of the electric field in contact with the earth is short-circuited by the earth."

That`s good enough for me. I have no desire to dig out Terman`s other two similar statements. They are in there but the story is the same in all chapters where it appears. Other authors say the same thing. Reg Edwards says they all copied from each other anyway. I do recall Terman having diagrams including antennas with their reflections in the earth illustrating the same phenomenon. But I don`t want to go looking for them now.

Terman has been around for 70 years or so. The errors are few.

Best regards, Richard Harrison, KB5WZI

5726. Re: recommendation: portable 2M antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 17:45:53 UTC
From: 'Doc <ltdoc@yahoo.com>
Message-ID: <3E11D7D1.8060702@yahoo.com>
Source record: 128165

tennant,
Lots of option! One I like uses three coat-hangers,
an SO-239 'chassis' connector and some string to hang
it with. Straighten the 'hooks' on two of the coat-
hangers and scrape all the enamel (or whatever it is)
off. Thread the straightened hook through opposing
holes in the base of the SO-239. Twist the 'hook' back
onto it's self to hold the coat-hanger parallel to the
base of the SO-239 (the 'loop' of the hanger horizontal).
In the center pin connection of the SO-239, solder the
third coat-hanger's 'hook' after straightening and
scrapeing it. To adjust the length of the third hanger
for resonance, grab the center of the bottom part of the
hanger and pull it up. When the 'length' of the vertical
element coat-hanger is right, quit stretching it.
It looks 'Rube Goldberg'ish' but that's what makes it
so great! Works pretty good at schools and ham club
demo's, they just ~know~ your a true ham... cheap!
'Doc

5727. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 17:56:09 UTC
From: "r.dring" <r.dring@ntlworld.com>
Message-ID: <TnlQ9.21$8E6.8190@newsfep1-win.server.ntli.net>
Source record: 128070
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

Gentlemen, gentlemen, with all your horror stories you will frighten Martin
in to giving up amateur radio.
We need to answer his questions, and to do that we need to define the
problems, as I see it they are
1 Is his supply PME, and if so what is to be done about it, and what is to
be done to separate the RF noise from the mains, and the mains earth.
2 The RF earth lead could be a resonant length on some bands giving high or
low impedances and voltages, what can be done about it, or even does he need
an RF earth connection at all. What can he do to ensure that no high voltage
RF conductors can come into contact with anyone.
3 What can he do about lightening protection.
4 What can he do to ensure he does not create TVI or BCI to his neighbours.
All of the forgoing questions can be answered, but Martin deeds to supply a
few more details about
his home and surroundings.
some of the questions are as follows:
Is he in the UK if not where is he.
What kind of electricity supply does he have, overhead or underground
feeder, is it PME,
Is his building a high rise block, if not what type/height is it.
Where are the antenna's going to be mounted, on his building or on separate
self supporting structures or other buildings.
Are the antenna's and feeders going to be coax, balanced, or end, fed. Are
they resonant, broadband, or tunable.
Can he use an RF earth or counterpoise.
Martin wants the safest, cost affective solutions for his installation. All
of the problems and hazards are curable with a little care, and he will
still have a suitable and sensitive installation.
I recommend he obtains a copy of the RSGB book "HF antenna collection" which
has the Peter Chadwick article "the Killing ground" reproduced in it.
Another version is in the RSGB Book "The radio amateur guide to EMC.
This reply is already too long so I will put more answers regarding ELCB's
and RCCD's and PME in another email.
regards
Ray
Martin" <Martin@_NOSPAM_g1gyc.demon.co.uk> wrote in message
news:auiv4t$f10$1$8300dec7@news.demon.co.uk...
> Hi, and thank you for reading this.
> I am in stalling my radio station in to the small "box room" on the 2nd
> floor
> of the building and I have in the past not worried about a separate earth
> for
> the station. But as this station is going to be a more permanent

arrangement
> than my other previous locations I want to make sure that :-
> 1) the station is safe electrically. (of course the supply earth will be
> connected)
> 2) protected form static (lightening etc).
> 3) has a good RF performance. (this means low resistance earth connection)
> 4) is as clear of EMC problems as possible.
>
> So any one got some pointers or helpful hints on installing a separate
> station
> earth. The ground connection is easy 3 to 6 off 6' long 1" dia copper
pipes
> driven all the way in to the soil (I know it is a big is job but not
> impossible).
> The bit I am puzzling over is do I use a heavy copper strap as used on
> church
> lightening conductors to provide a common earth for every thing or just
for
> the
> static protection and then a separate heavy conductor to provide the shack
> equipment earth.
> In either case how can I ensure that the earthing does not radiate RF (I
> assume
> that making sure the aerials are correctly balanced with suitable baluns
> fitted is
> the answer here.)
> I did here about using RG8 type coax and connecting both inner and screen
> to the hardware in the ground but only connecting the shack earth buss to
> the
> inner - any thoughts on this.
>
> Cheers Martin
>
>

5728. Re: 802.11b 2.4Ghz - dB Gain question?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 17:59:04 UTC
From: Phil Schuman <pschuman_NOSPAM@interserv.com>
Message-ID: <auslssiog1@bob.news.rcn.net>
Source record: 128166
Cross-posted to: alt.internet.wireless,rec.radio.amateur.antenna,rec.radio.amateur.misc

interesting mesh reflector clip-on for wireless access point antenna -
<http://osiris.urbanna.net/antenna_designs/projects/template>
Phil -

"Michael Erskine" <osiris@deltaville.net> wrote in message
> Rick;
>
> 6 dB isn't really that much but, Yes it does add to both ends of the
> link. I mean when you are comupting link strength, yes it adds. It
> is just that 6dBi is a bit less than you really need to double your
> range indoors because walls can really suck up your signal.
>
> Try adding this:
> http://osiris.urbanna.net/antenna_designs/projects/template to your AP
> on the off chance that it might help you. You suggest you have two
> antennae on your AP. If you do, by all means look at the picture at
> the bottom of the page and make two of them for your AP before giving
> up. It is cheaper than getting a second 6 dBi antenna and more likely
> to work.
>
> -m-

5729. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 18:00:13 UTC
From: fmmck@aol.com
Message-ID: <20021231130013.28420.00000405@mb-fv.aol.com>
Source record: 128167

<< However, I can't rely on the trees. In CT state parks, it is verboten to tie anything to a tree. State-employed droids daily remove anything [they can see]. Also, there are no trees on beaches. >>

Ken-

The company that makes the Hamstick antennas, also sells a bracket that allows two mobile whips to be mounted as a dipole. They don't have to be Hamsticks, but those are cheaper than other alternatives.

I have one mounted on a five foot section of aluminum TV mast, supported by a roof-mount bracket from Radio Shack. The bracket acts like a tripod when sitting on the ground.

What about bringing along your own "trees" in the form of TV masts and roof-mount brackets? Perhaps some kind of tent-peg approach would keep the brackets from tipping over from the wieght of the antenna wire.

73, Fred, K4DII

5730. Re: Please suggest SW antenna for "French balcony"

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 18:08:30 UTC
From: fmmck@aol.com
Message-ID: <20021231130830.28420.00000407@mb-fv.aol.com>
Source record: 128168

<< There are only two possible setups in my limited space balcony would a "V" dipole turned 90 degrees, something like this: >>

Candy-

For a short time I lived in an apartment that had a metal railing on the balcony. I noticed that someone had clamped an antenna mount (CB Mirror Mount) to the corner of the railing, so I tried my Hustler mobile antenna.

The Hustler and a Kenwood TS-690S with 100 watts, worked OK on 40 Meters. I think my most serious problem was due to cross-polarization between my vertical antenna and horizontal dipoles of some of the local stations. At skip distances it wasn't as strong as the other local stations, but could be heard.

73, Fred, K4DII

5731. Re: recommendation: portable 2M antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 18:17:57 UTC
From: fmmck@aol.com
Message-ID: <20021231131757.28420.00000408@mb-fv.aol.com>
Source record: 128069

<< I'm looking for plans for a 2M antenna for mobile/portable use - school and scout camp demos, hotel rooms, and so on. I'm looking for a design that will "fold" or "roll up" then be taken out and hung in a window or from a tree in use. >>

Tenant-

Here is a design posted in years past by someone else, that is well worth re-posting. For the ASCII drawing to line up correctly, you need to use a mono-spaced font such as Courier.

I tried one and it worked very well. You can use a small-tipped soldering iron to melt a hole in the insulation at the top, to use a string to tie it to a tree.

73, Fred, K4DII

2M Jpole with 300 ohm twin lead
>From: kinsman@ektools.UUCP (Andrew A. Kinsman)
Newsgroups: rec.ham-radio
Organization: Eastman Kodak, Dept. 47, Rochester NY

The following is a description of a J-Pole antenna made from 300 ohm TV twin-lead. Quite a few of the hams in the area have successfully built one or more of these antennas. They have quite a few advantages which include improved performance for 2-meter HTs, portability, and last, but never least, they are inexpensive.

```
| | do not short this end.
| |
| |
| |
| |
| |
54" | |
| |
| |
| |
| 1/4" gap
| |
| |
| | 16 3/4"
coax ctr conductor=>* *<= coax shield
| |
1 1/4" | |
```

-*-
solder the twin leads together at bottom

1. Start with 54 1/2" of TV twin lead (foam core does not work as well)
2. Strip 1/2" of insulation at bottom and solder wires together.
3. Measure 1 1/4" from soldered wires and strip insulation on both sides. This is the solder point for a coax feedline.
4. Measure 16 3/4" from bottom and cut out 1/4" notch on one side.
5. Feed with a length of RG58U coax. Tape coax at feedpoint to the twin lead for strength and weather protection.

I have also attached an alligator clip to the plastic on the top of the antenna in order to conveniently hang it. I am successfully using one in my attic to avoid any CCNR problems. I have another that I can take with me camping, sailing, etc.

This design has appeared on many BBSs and in club newsletters; the earliest reference that I know of is a Jan. 1984 D.A.R.C. antenna article by James Burks, KA5QYV.

Enjoy,
N6UBM

5732. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 18:30:58 UTC
From: "r.dring" <r.dring@ntlworld.com>
Message-ID: <UnIQ9.22$8E6.8190@newsfep1-win.server.ntli.net>
Source record: 128071
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

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in to giving up amateur radio.
We need to answer his questions, and to do that we need to define the
problems, as I see it they are
1 Is his supply PME, and if so what is to be done about it, and what is to
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an RF earth connection at all. What can he do to ensure that no high voltage
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feeder, is it PME,
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self supporting structures or other buildings.
Are the antenna's and feeders going to be coax, balanced, or end, fed. Are
they resonant, broadband, or tunable.
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Martin wants the safest, cost affective solutions for his installation. All
of the problems and hazards are curable with a little care, and he will
still have a suitable and sensitive installation.
I recommend he obtains a copy of the RSGB book "HF antenna collection" which
has the Peter Chadwick article "the Killing ground" reproduced in it.
Another version is in the RSGB Book "The radio amateur guide to EMC.
This reply is already too long so I will put more answers regarding ELCB's
and RCCD's and PME in another email.
regards
Ray
Martin" <Martin@_NOSPAM_g1gyc.demon.co.uk> wrote in message
news:auiv4t$f10$1$8300dec7@news.demon.co.uk...
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> 4) is as clear of EMC problems as possible.
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> earth. The ground connection is easy 3 to 6 off 6' long 1" dia copper
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> to the hardware in the ground but only connecting the shack earth buss to
> the
> inner - any thoughts on this.
>
> Cheers Martin
>
>

5733. 160 Meter K9AY Small Loop Issues

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 18:33:14 UTC
From: wa5bdu@yahoo.com
Message-ID: <ca1a467b.0212311033.769d6281@posting.google.com>
Source record: 128072

I built the K9AY compact 160 meter receiving loop from the September, 1997 QST and don't seem to be getting the directivity I expected. I wonder if the newsgroup's members have any pointers. Some things I'm considering--

Do I need a good common mode choke on the coax to the receiver?
Is it critical that the loops are at exactly 90 degrees to each other?

There's always the possiblity that I've wired something wrong and I will be going over that again when I get some daylight at home. I did check the 9:1 transformer with an antenna analyzer and it seems to work fine.

73--Nick, WA5BDU
in Arkansas

5734. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 18:35:27 UTC
From: aunwin@insightbb.com
Message-ID: <85ed38d.0212311035.74e28c80@posting.google.com>
Source record: 128073

"e news:<%KiQ9.340$rs4.371305@newsfeed.slurp.net>...
> "Richard Harrison" <richardharrison@webtv.net> wrote
> >
> > There are several answers. Medium wave stations use vertical antennas
> > because there is no groundwave propagation of horizontally polarizeed
> > waves.
> ------------------------
>
> "No groundwave propagation?" Not really. Medium wave broadcast stations
> use vertical polarization because propagation losses for horizontal
> polarization are higher. But those losses are not infinite, by any stretch.
>
> Richard Fry

"Propagation losses" !!!
Is this 'losses' due to penetration through the ionisphere?
Since a previous post pointed to the FCC requirement of minimum
'efficiency'
which I assume is ground losses (vertical use) this 'propagation
losses' throws me into a loop (no pun intended)when considering
verticals versus horizontal antennas. Could you please expand on the
cause and implications of these losses
with respect to medium wave broadcasting ?
Art

5735. AMRAD Ant QST Sept 2001 ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 19:24:14 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <v13rn21k3bsv02@corp.supernews.com>
Source record: 128074

I'd like to hear some user comments on this active loopstick antenna as I've
been thinking of buying one vs. making a loop. My main interest would be
VLF and 160 meters unless of course it's a great performer on HF. I'm
guessing the parts cost is about $100.00!
tnx
hank wd5jfr

5736. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 19:48:38 UTC
From: Richard Clark <kb7qhc@attbi.com>
Message-ID: <dns31v8fl1ndss42vc8ii6dbas5mb52rba@4ax.com>
Source record: 128075

On 31 Dec 2002 10:35:27 -0800, aunwin@insightbb.com (Art Unwin KB9MZ)
wrote:

>"e news:<%KiQ9.340$rs4.371305@newsfeed.slurp.net>...
>> "Richard Harrison" <richardharrison@webtv.net> wrote
>> >
>> > There are several answers. Medium wave stations use vertical antennas
>> > because there is no groundwave propagation of horizontally polarizeed
>> > waves.
>> _________________________
>>
>> "No groundwave propagation?" Not really. Medium wave broadcast stations
>> use vertical polarization because propagation losses for horizontal
>> polarization are higher. But those losses are not infinite, by any stretch.
>>
>> Richard Fry
>
>"Propagation losses" !!!
>Is this 'losses' due to penetration through the ionisphere?
> Since a previous post pointed to the FCC requirement of minimum
>'efficiency'
>which I assume is ground losses (vertical use) this 'propagation
>losses' throws me into a loop (no pun intended)when considering
>verticals versus horizontal antennas. Could you please expand on the
>cause and implications of these losses
>with respect to medium wave broadcasting ?
>Art

Hi Art,

The losses relate to Richard Harrison's quote:
>>From page 803, paragraph 22-2 of Terman`s 1955 edition of "Electronic
>>and Radio Engineering":
>>"The ground wave is vertically polarized, because any horizontal
>>component of the electric field in contact with the earth is
>>short-circuited by the earth."
which is significantly true in practical life, but clearly, ground is
not the best of short-circuits to be found. This is a hedge bet to
offer that since ground is not a perfect short, it must then be a
lossy short and that someone will observe a weak horizontal signal at
some distance beyond what a perfectly conducting earth would have
allowed.

Either way, the loss is due to ground absorption for a mode eminently
suited to pump power straight into it. One of the simple tests of

this is found in the old wive's tale that horizontals do not benefit by ground work.

Place a ground screen under a horizontal and the ground loss goes away. As a consequence, that now rescued power must be expressed in other directions (straight up is one principal beneficiary); and for a random population of antennas, that would translate into some gain, somewhere useful. How much gain is another matter and hardly suited to the acid test of "does it make 1dB difference?"

73's
Richard Clark, KB7QHC

5737. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 19:54:30 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <aussl9$9osv4$1@ID-175933.news.dfncis.de>
Source record: 128076

Broadly defined it is the attenuation of a radio wave between the transmitting antenna and the receiver location. Some of the factors involved are: path length, frequency, polarization, earth conductivity/dielectric constant, obstructions, and atmospheric conditions.

> Is this 'losses' due to penetration through the ionisphere?
> Since a previous post pointed to the FCC requirement of minimum
> 'efficiency'
> which I assume is ground losses (vertical use) this 'propagation
> losses' throws me into a loop (no pun intended)when considering
> verticals versus horizontal antennas. Could you please expand on the
> cause and implications of these losses
> with respect to medium wave broadcasting ?
> Art

5738. Re: AMRAD Ant QST Sept 2001 ?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 19:57:22 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <7qs31vgdlbpriks56m9kmjtdq09sspd3af@4ax.com>
Source record: 128077

On Tue, 31 Dec 2002 13:24:14 -0600, "Henry Kolesnik"
<wd5jfr@oklahoma.net> wrote:

>I'd like to hear some user comments on this active loopstick antenna as I've
>been thinking of buying one vs. making a loop. My main interest would be
>VLF and 160 meters unless of course it's a great performer on HF. I'm
>guessing the parts cost is about $100.00!

I presume you mean K0BRA's article. It's not a loopstick antenna.
It's an active antenna. Your estimate of parts cost is about right.
The critical parts are really the power transformer (you need low
capacitance between windings to prevent coupling in to AC power
system) and of course the active device.

Performance on LF is pretty good, IF you get it in the clear. That's
most of the problem. As for the rest of the SW band, if you can
afford to put up a random wire, it will probably work just as well.

In my opinion, what this antenna does for you more than anything else
is get you some isolation from most of the noise sources in your
house. If you are plagued by TV flyback hash, fluorescent lights, the
VCR and most other digital nasties, then this is the antenna for you
--provided you can get it away from or above your house.

I found it necessary to limit coverage to below 10 MHz as per the
article. In addition to that, the IMD from sources such as LORAN can
be fierce. If your receiver is up to the task, have at it. But don't
expect an inexpensive SW receiver that just happens to cover LW to do
something good with it. Be prepared to add additional bandpass
filtering or perhaps an attenuator between this active antenna and
your receiver.

If you can't find the CP666, check AMRAD's web site for details on
using a more common JFET, such as the U310. IMD Performance will be
reduced substantially, but if you live in a rural area you may not
care.

If you have other construction questions, feel free to e-mail me,
though I'm hardly the expert on this. If you look on the AMRAD web
site you'll find K0BRA right there...

73,

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

5739. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 20:46:23 UTC
From: Anon <paul@anon.com>
Message-ID: <FVfhj6B$AgE+Ewh2@btinternet.com>
Source record: 128078
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

They have yet to "DO" me and they haven't done Mr Chadwick! Nor his wife when as I remember him telling me she told them where to go when they did try to provide PME at his home.

The Earth at your premises is YOUR responsibility not the Local supply companies! And they will either refuse to connect on a new installation - or disconnect on an old installation if it doesn't meet the required standard.

From someone with the PME disconnected for ever!

AND Someone who knows!!

>
>The local electricty company advised against this method - especially in
>situtions where there was a real risk of the neutral disconnection, eg in an
>area supplied by overhead wires. (It is extremely rare with buried supplies
>they tell me.) In fact, they advised they would disconnect my supply if I
>used it this method.
>
> >
>> From someone with Experience! Who has his PME disconnected and that's
>> the way it's staying!
>>
>
>OK, but if you local supply company don't like it you may well get
>disconnected.
>
>
>

--

5740. Re: Cheapest, lightest QRP 40/80 dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 20:53:26 UTC
From: cprstn54zz@att.net
Message-ID: <3e120231.59761250@news-server.optonline.net>
Source record: 128079

On 31 Dec 2002 18:00:13 GMT, fmmck@aol.com (Fred McKenzie) wrote:
>The company that makes the Hamstick antennas, also sells a bracket that allows
>two mobile whips to be mounted as a dipole. They don't have to be Hamsticks,
>but those are cheaper than other alternatives.

I thought I mentioned -- but didn't -- that I have a new 20 ft. Black Widow crappie pole ($17 from Cabela's) that I intend to use as the feedpoint support where there are no trees. Actually, I can get it 23 ft up because I keep it in a 4 ft PVC pipe case that doubles as the bottom section, adding another 3 ft.

If that doesn't work, I'll spring for the MFJ item -- which goes to 30 ft. That is a much, much better height (i.e. 3 dB better) for 80M. But $80 for the MFJ pole is not cheap -- and you can't fish for crappie with it, either.

Ken KC2JDY

Ken
(to reply via email
remove "zz" from address)

5741. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 21:04:04 UTC
From: richardharrison@webtv.net
Message-ID: <3106-3E120644-201@storefull-2314.public.lawson.webtv.net>
Source record: 128080

Art Unwin wrote:
"Propagation losses"!!!
"Is this losses due to penetration through the ionosphere?"

Good question. The answer is in a large part, yes.

Energy is neither created nor destroyed. Suppose the earth were conductive like sea water. Not much heat generated upon wave reflection from its surface. But, tangential to the earth`s surface, we have direct radiation from a horizontally polarized antenna and an almost equally strong reflected signal. The reflected signal is out-of-phase with the direct signal from our viewpoint. Distance traveled to us is nearly the same, so the signals remain equal in strength and out-of-phase arriving at our surface of the earth location. Strength of this combination is very nearly zero where we stand.

Art Unwin has, I believe, a copy of Terman`s 1955 edition. On page 886 is Fig. 23-23 which illustrates what happens with (a) horizontal polarization, and (b) vertical polarization. In (a) there is no signal along the horizontal. In (b) the strongest signal is along the horizontal.

As Art suggested, the signal from the horizontally polarized antenna being strongly reflected goes elsewhere and this is indeed penetrating the ionosphere during daylight hours. At night this higher angle radiation is reflected to earth for medium frequencies in most cases. The concern of the broadcaster is that this will reduce the radius covered by his station through distructive interference with his ground wave (fading).

The broadcaster wants maximum ground wave and, in nearly all cases, minimum sky coverage especially at high angles of radiation where the signal may be returned to earth close to the transmitter.

Best regards, Richard Harrison, KB5WZI

5742. Re: 160 Meter K9AY Small Loop Issues

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 21:26:12 UTC
From: Tom Wagner - N1MM <tfwagner@snet.net>
Message-ID: <UXnQ9.7571$2Z2.1959701659@newssvr10.news.prodigy.com>
Source record: 128081

I would say it is always a good idea to put
a common mode choke on a beverage or
K9AY type antenna. You really don't want
any chance of common mode current back
feeding into your antenna. With a low
output antenna like a K9AY, I would think
it is even more critical. After all, your
feedline shield is an antenna.

I use a common mode balunk on a short
(400') beverage, and the antenna works great.

73,
Tom Wagner - N1MM
Check out the N1MM Free Contest Logger at
http://www.N1MM.com
http://groups.yahoo.com/group/N1MMLogger

"Nick Kennedy" <wa5bdu@yahoo.com> wrote in message
news:ca1a467b.0212311033.769d6281@posting.google.com...
> I built the K9AY compact 160 meter receiving loop from the September,
> 1997 QST and don't seem to be getting the directivity I expected. I
> wonder if the newsgroup's members have any pointers. Some things I'm
> considering--
>
> Do I need a good common mode choke on the coax to the receiver?
> Is it critical that the loops are at exactly 90 degrees to each other?
>
> There's always the possiblity that I've wired something wrong and I
> will be going over that again when I get some daylight at home. I did
> check the 9:1 transformer with an antenna analyzer and it seems to
> work fine.
>
> 73--Nick, WA5BDU
> in Arkansas

5743. Re: GAP VERTICAL ANTENNA PERFORMANCE

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 21:43:31 UTC
From: jay vanatter <jayvan@infostations.com>
Message-ID: <3E120F83.4FD6C46A@infostations.com>
Source record: 128082

Asa,
I have had one for some time. It tunes up on all bands great but then so does my heath kit dummy load. Overall it works but I get much better results with my 130 ft dipole fed with 450 ohm ladder line and my total investment was less than $30 for it. Bottom line is some folks swear by then and others swear at them.

Asa Page wrote:

> Anyone had any experiences with either the Titan DX or the Challenger DX
> vertical antennas produced by GAP Antennas? If you had it to do all over
> again, would you purchase either of the antennas again?
>
> Just looking before I leap.
>
> Thanks.
>
> Asa
> KH2N

5744. Re: Folded unipole for AM band

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 21:45:05 UTC
From: Christophe <christophe.torre@wanadoo.fr>
Message-ID: <aut35skdo1@news-reader10.wanadoo.fr>
Source record: 128083

Exist of the formula to calculate the construction of a folded unipole or a monopole ?. Or can one find shemas ?
Best regards,
73 de CH. TORRE

action.radio@wanadoo.fr
Richard Harrison <richardharrison@webtv.net> a crit dans le message :
16190-3E106E34-203@storefull-2314.public.lawson.webtv.net...
> Jacques, ON5MJ wrote:
> "-1485 KHz) particularly about transmission line connection?"
>
> A folded unipole is 1/2 a folded dipole. The ground system of radials
> produces the missing half of the dipole by production of a virtual image
> of the 1/4-wave in the air.
>
> Impedance at the drivepoint is half that for a dipole of similar
> construction. For a simple dipole, the radiation resistance at the
> feedpoint is near 74 ohms and the simple 1/4-wave vertical has a
> radiation resistance near 37 ohms.
>
> For a simple folded dipole, the feedpoint resistance is near 300 ohms,
> and the simple folded unipole has a feedpoint resistance near 150 ohms.
>
> At the feedpoint of the folded monopole, both ends of the skinny loop
> could be insulated from the earth and seoarate 75-ohm coax cables could
> be used to drive each end with their shields connected together and
> connected to the antenna ground system.
>
> It is cheaper and easier to use a single coax to match the folded
> monopole through an L, T, or pi network.
>
> The advantage if a matching network is required, may be with a simple
> 1/4-wave vertical. The transformation ratio between 50-ohm coax and a
> 37-ohm antenna is less than 75-ohm coax and a 150-ohm antenna. Yes,
> there are games to play with the sizes of conductors used in the unipole
> and adjustments which can be made in its feedpoint and overall length,
> but the above ground structure of the ordinary 1/4-wave vertical is
> simpler and cheaper.
>
> Advantage of the folded unipole or shunt-fed tower is a directly
> grounded section. This helps lightning protection and gives a side for
> departure of lighting and other cables without needing chokes or other
> isolation devices. Also, skeletal coax lines may be a nearer match to
> the folded tower than to a simple tower and thus require less coil to

> make a match.
>
> Folded and straight towers have near identical radiation
> characteristics. Going with the majority of users will likely be less
> trouble for you, if you are erecting a new tower to radiate on 1485 KHz.
> Set it on a base insulator. If you are taking advantage of a
> grounded-base tower which is already up, then shunt feed it or connect a
> wire to its top to make it a folded unipole. It will probably reguire
> the installation of a good radial (120) 1/4-wavelength, system as its
> other use was probably as a support for VHF or UHF antennas which
> required no grounding system.
>
> Best regards, Richard Harrison, KB5WZI
>
>

5745. Re: Station Earth / RF Earth for shack on 2nd / 3rd floor

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 21:47:07 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <aut36d$9sipi$1@ID-140397.news.dfncis.de>
Source record: 128084
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,uk.radio.amateur

"Anon" <paul@anon.com> wrote in message
news:FVfhj6B$AgE+Ewh2@btinternet.com...
> They have yet to "DO" me and they haven't done Mr Chadwick! Nor his wife
> when as I remember him telling me she told them where to go when they
> did try to provide PME at his home.
>
> The Earth at your premises is YOUR responsibility not the Local supply
> companies! And they will either refuse to connect on a new installation
> - or disconnect on an old installation if it doesn't meet the required
> standard.
>
> From someone with the PME disconnected for ever!
>
> AND Someone who knows!!
>

I shouldn't worry about it, anyone who can get so worked up and excited
about a NG posting is more likely to have a heart attack or stroke than be
electrocuted.

Calm down, Lan.

73

Brian

5746. Has anyone moded their IC-756 PRO2 for Extended TX?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 21:55:45 UTC
From: BICisfag <ll@jj.com>
Message-ID: <3E121261.42A65AA4@jj.com>
Source record: 128086

Has anyone moded their IC-756 PRO2 for Extended TX?

How did you do it?

5747. Is their an INRAD mod for the IC-756 PRO 2?

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 21:57:02 UTC
From: BICisfag <ll@jj.com>
Message-ID: <3E1212AE.5C24360A@jj.com>
Source record: 128087

The component replacement similiar to the FT-1000D?
To make RX noise lower.

5748. Re: antenna heights

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 22:08:48 UTC
From: richardharrison@webtv.net
Message-ID: <11267-3E121570-245@storefull-2318.public.lawson.webtv.net>
Source record: 128085

Richard Fry wrote:
"Broadly defined it (loss) is the attenuation of a radio wave between the transmitting antenna and the receiving antenna."

That might be called "path loss".

The FCC publishes and includes in its rules "Ground Wave Propagation Curves". There are separate sheets for each few percent of frequency (3% to 5% or so) for the medium wave broadcast band. The same dielectric constant is assumed for all curves. Conductivities range from 0.5 MMHOS / M, to 5000 MMHOS / M (no Siemens yet on my charts). Charts are based on 100 MV / M at one mile from the antenna, and give millivolts per meter at any distance from the antenna on a curve corresponding to a certain soil conductivity. So, for the FCC, medium wave path loss is a function of of resistivity in the soil.

Best regards, Richard Harrison, KB5WZI

5749. Re: GAP VERTICAL ANTENNA PERFORMANCE

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 23:05:45 UTC
From: kd1jt@arrl.net
Message-ID: <3e122203.1027101159@news.mindspring.com>
Source record: 128088

On Tue, 31 Dec 2002 13:43:31 -0800, jay vanatter
<jayvan@infostations.com> wrote:

>Asa,
>I have had one for some time. It tunes up on all bands great but then so does
>my heath kit dummy load. Overall it works but I get much better results
>with my 130 ft dipole fed with 450 ohm ladder line and my total investment was
>less than $30 for it. Bottom line is some folks swear by then and others
>swear at them.

I gotta agree with Asa ... I had a Titan for 6 months, and was glad to
find a buyer for it (I lost a bundle on it, though). My wires do a
MUCH better job on all bands, and the highest one is only 30 feet. I
previously had a Cushcraft R5 (not a great reputation), and thought
that it did better than the GAP, too.

Dennis
FLHR

5750. Booo

Newsgroup: rec.radio.amateur.antenna
Date: 2002-12-31 23:42:59 UTC
From: KAZeringue <kazeringue@aol.com>
Message-ID: <3E122BF5.8000508@aol.com>
Source record: 128089

test